BEFORE THE ENVIRONMENT COURT AT CHRISTCHURCH **I MUA I TE KŌTI TAIAO O AOTEAROA KI ŌTAUTAHI**	**ENV-2025-CHC-**
Under	the Resource Management Act 1991 (Act)
In the Matter	of an appeal under Clause 14(1), Schedule 1 of the Act
Between	**DEXIN Investment Limited** Appellant
And	**Waimakariri District Council** Respondent

Notice of Appeal by DEXIN Investment Limited in relation to a decision on the Proposed District Plan

Dated: 22 August 2025

Amanda Dewar
Barrister | Canterbury Chambers
Phone | 0212429175
Email | amanda@amandadewar.com

To: The Registrar
Environment Court
Christchurch

Notice of Appeal

1. **DEXIN Investment Limited** (**DEXIN**) appeals against a decision by the Waimakariri District Council (**Respondent**) on its Proposed District Plan (**PDP**).

2. DEXIN made a submission and further submissions on the PDP.

3. DEXIN is not a trade competitor for the purposes of section 308D of the Resource Management Act 1991 (**Act**).

4. DEXIN received notice of the Respondent's decisions in relation to its PDP including on DEXIN's submissions on 12 July 2025 (**Decisions**).

5. The part of the Decisions that DEXIN is appealing is **Recommendation Report 33 – Hearing Stream 12A** and in particular the decision to accept the recommendation of the Respondent's PDP Hearings Panel to reject DEXIN's request to include 1250 Main North Road[1] (**Property**) in the Special Purpose Zone – Pegasus Resort (**SPZ(PR)**)[2] (**Decision**).

Reasons for the Appeal

Background

6. The Property at 1250 Main North Road is on the northeastern corner of the entrance road to the Pegasus Golf Resort and Pegasus township. It is surrounded by the golf course on three sides, with residential properties close by. Immediately adjacent to the west is State Highway 1 that will form part of the now confirmed Woodend Bypass with the Ravenswood town centre and industrial zones situated on the other side of the state highway.

7. The Property is approximately 3.76 hectares and currently contains an existing former farm dwelling and curtilage including an orchard, paddocks in pasture, shelter belts and a modified stream which runs through the property west to east. The property has previously been used for farming, rural lifestyle purposes and contained the first flour mill in the district.

[1] Record of Title Identifier 1078395
[2] Section 4 PartC at paragraphs 28 to 51

8. The appellant sought to rezone the property to SPZ(PR) together with some initial amendments to the SPZ(PR), the Outline Development Plan for the zone and the associated Pegasus Resort Urban Design Guidelines.

9. The intention of the rezoning was to incorporate the site as a natural extension of the Golf Resort property given its entrance way location, which would increase the legibility and level of connection to the Golf Resort. This was to be achieved through the inclusion of two new activities areas to the SPZ(PR) that provided for a range of agricultural tourism activities in the form of a farmers' market, supplemented with visitor attractions and artisan offerings as well as some medium density residential.

10. The proposal was refined through the Respondent's PDP process and in response to the s42A report.

Reasons

11. The Decision breaches principles of natural justice by deciding there was insufficient evidence on the issue of cultural effects which led to the erroneous conclusion the rezoning should be rejected without providing DEXIN with an opportunity to provide evidence on the matter. This, in circumstances where the matter was not raised in the Section 42A Report, there were no submissions on the matter or any submissions opposing the rezoning.

12. The Decision fails to achieve the functions of the Respondent under section 30 of the Act in respect of the integrated management of the effects of the use and development of land and physical resources.

13. The Decision fails to meet the requirements of section 32.

14. The Decision fails to promote sustainable management of resources and will not achieve the purpose of the Act.

Relief Sought

Specific Relief

15. DEXIN seeks that the Property is included in the SPZ(PR) of the PDP:

    (a) in terms of the relief as set out in its original submission and/or its further submission (**Submissions**);

or, without limiting the relief sought in (a)

(b) in terms of the provisions set out in Appendix A of the *Joint Witness Statement – DEXIN rezoning request (planning)* dated 6 August 2024.

16. Subject to the general relief set out in paragraph 16 below.

General Relief

17. That the DPD be amended in a similar or such other way as may be appropriate to:

(a) address the matters raised in this Appeal;

(b) any other similar, consequential, alternative, or other relief as is necessary to address the issues raised in this Appeal or otherwise raised in DEXIN's Submissions.

Attached Documents

18. The following documents are **attached** to this notice:

(a) a copy of DEXIN's submission (**Annexure A**);

(b) a copy of DEXIN's further submissions (**Annexure B**);

(c) a copy of Joint Witness Statement – DEXIN rezoning request (planning) dated 6 August 2024 (**Annexure C**);

(d) a copy of the Council's decision – Report 33 (**Annexure D**).

19. It is noted there is no attached list of names and addresses of the persons to be served with a copy of this notice of appeal as there were no submissions on this matter.

Dated this 22nd day of August 2025

Amanda Dewar
Counsel for DEXIN Investment Limited

Address for Service for the Appellant:

Amanda Dewar
Barrister | Canterbury Chambers
PO Box 44
Christchurch 8140

Email: amanda@amandadewar.com
Phone:021 242 9175

Advice to Recipients of Copy of Notice of Appeal

How to become a Party to Proceedings

You may be a party to the appeal if you made a submission or further submission on the matter of this appeal.

To become a party to the appeal, you must –

(a) within 15 working days after the period for lodging a notice of appeal ends, lodge a notice of your wish to be a party to the proceedings (in form 33) with the Environment Court and serve copies of your notice on the relevant local authority and the appellant; and

(b) within 20 working days after the period for lodging a notice of appeal ends, serve copies of your notice on all other parties.

Your right to be a party to the proceedings in the Court may be limited by the trade competition provisions in section 274(1)and Part 11A of the Resource Management Act 1991.

You may apply to the Environment Court under section 281 of the Resource Management Act 1991 for a waiver of the above timing or service requirements (see form 38).

Advice

If you have any questions about this notice, contact the Environment Court in Auckland, Wellington, or Christchurch

SUBMISSION TO THE PROPOSED WAIMAKARIRI DISTRICT PLAN 2021

TO:	Proposed District Plan Submission Waimakariri District Council Private Bag 1005 RANGIORA 7440
E-MAIL:	developmentplanning@wmk.govt.nz
SUBMISSION ON:	Proposed Waimakariri District Plan 2021
NAME OF SUBMITTER:	DEXIN Investment Limited
ADDRESS FOR SERVICE:	DEXIN Investment Limited C/- 4Sight Consulting Limited 77 Stuart Street Dunedin 9016 Attention: Emma Spalding
EMAIL:	emmas@4sight.co.nz
PHONE:	027 696 1009

1.0 INTRODUCTION

DEXIN Investment Ltd's (**DEXIN's**) submission is made on the Proposed Waimakariri District Plan (**proposed WDP**) regarding the land zoned Special Purpose Zone (Pegasus Resort) (**SPZ(PR)**). The purpose of this submission is to both support the provisions and seek amendments to the extent of zoning of the SPZ(PR), as well as to seek further amendments to the SPZ(PR), including amending the proposed ODP, Design Guidelines and plan provisions.

The key purpose of the submission is to incorporate an additional site (1250 Main North Road and small adjoining areas of land - **the subject site**) into the SPZ(PR). **Appendix A** illustrates the land owned by DEXIN proposed to be included within SPZ(PR).

A central theme of DEXIN's submission is that it supports, in part, the rezoning of land contained within the SPZ(PR) zone boundary. However, DEXIN considers that the SPZ(PR) should be extended to encompass the site at 1250 Main North Road, which has recently been purchased by DEXIN, and several small adjoining areas of land. The inclusion of the subject site should be underpinned by extending the SPZ(PR) ODP to cover the subject site, with the adoption of two new activity areas to provide for a range of agricultural tourism activities and a limited amount of complementary and well-designed medium density residential activities.

Both the proposed tourism activities and residential activities are consistent with the range of activities anticipated in the notified version of the SPZ(PR) and the inclusion of this additional site at the gateway of the wider Pegasus development would serve to further consolidate the Pegasus Resort as a regionally significant tourism destination. It is not seen as a competing tourism location, rather a natural extension of the tourism resort enabled by the SPZ(PR), with wider benefits to be had from agglomerating a broader range of tourism based activities in the same location. **Appendix B** contains a draft Outline Development Plan, to give an initial indication of the extent of the proposed activity areas.

The subject site is currently zoned Rural and the proposed WDP proposes a change in zoning of this site to Rural Lifestyle Zone. This proposed zone is not considered to be an effective or efficient use of land in the context of the future development of the surrounding area. The site is an ideal location for a visitor destination, due to the prominent corner location and immediate proximity to the SPZ(PR). The site is well placed as a flagship entry point into the larger SPZ(PR) zone, as well as providing a gateway to the Pegasus township, drawing traffic off State Highway 1 towards Pegasus Boulevard. DEXIN considers that this site is a natural extension of the SPZ(PR) as it is a corner site directly adjacent to the SPZ(PR), bordered on three sides by the Pegasus Golf Course.

The development context for the site and the design objective has been set out in the 'Pegasus Mākete' document prepared by James Lunday, contained in **Appendix C** to this submission. It is envisaged that the site would become an agricultural tourist destination based around a local farmers market, in the style of Matakana Market (north of Auckland).

It is intended that the market would contain and be supplemented with visitor attractions and associated artisan product sellers showcasing local artisan wines, food and art/craft products and other activities as set out further in this submission. The site's history is intended to be enhanced and intial concepts include the re-creation of a wind and water powered flour mill, to process local grains. Connectivity through the site will be enhanced, with development of pedestrian and cycle links through the site to the rest of the SPZ(PR), with connectivity through to the golf course and Ravenswood Walkway. The existing Taranaki Stream which traverses the site would be enhanced and naturalised, with lake areas extended and stormwater management areas developed.

The main market area on the subject site would be bordered to the north, east and south by residential activity, with a mixture of terraced housing and semi-detached townhouses envisaged, with lot sizes anticiapted to be in the realm of approximalty 200m^2 - 300m^2.

Due to the subject site's location directly adjacent to the State Highway and on the corner of a major intersection (adjacent to the State Highway 1/Pegasus Boulevard roundabout) DEXIN has initiated a high-level review of traffic implications and has engaged a traffic engineer (**Ably**) to provide initial transportation advice on potential access arrangements, trip generation and connectivity. **Appendix D** contains the memorandum prepared by Ably, which concludes that expanding the SPZ(PR) to encompass the site at 1250 Main North Road is not anticipated to create significant transportation effects and can be designed to function safely and efficiently in the context of the wider SPZ(PR) and transport network.

Through the preparation of this submission, DEXIN has had regard to the Resource Management Act 1991 (**the Act**), the National Policy Statement for Urban Development 2020 (**the NPS-UD**), the Operative Canterbury Regional Policy Statement 2013 (**the CRPS**), the Mahaanui Iwi Management Plan 2013 (**IMP**), the Waimakariri 2048 District Development Strategy (**WDDS**) and Our Space 2018-2048: Greater Christchurch Settlement Pattern Update (**Our Space Strategy**).

2.0 SUBMISSIONS

2.1 SUBMISSION POINT 1 – OVERALL SUBMISSION ON SPZ(PR)

2.1.1 DEXIN **supports in part** the proposed SPZ(PR) as it relates to the wider SPZ(PR) sites, however seeks further amendments to the zone as set out in the submission points below.

2.1.2 DEXIN supports the rezoning of the main SPZ(PR) and the general intent of the SPZ(PR) provisions to develop a high-quality tourist destination, centred around the existing golf course.

2.1.3 As set out in submission point 2 below, DEXIN seeks to include 1250 Main North Road (owned by DEXIN) into the proposed SPZ(PR). This inclusion will provide for both an agricultural tourism activity area as well as a medium density residential activity area. A map showing this additional land area located to the west of the Pegasus Golf Course boundary is attached to this submission in **Appendix A**.

2.1.4 As set out in submission point 3, to achieve the integration of the site at 1250 Main North Road into the SPZ(PR) it is proposed to expand the proposed Outline Development Plan (ODP) to cover the 1250 Main North Road site and small areas of adjacent land. The ODP will include two new activity areas: a residential activity area (Activity Area 7B) to enable the development of semi-detached or terraced townhouses along the northern, southern and eastern boundaries of the site, as well as an agricultural tourism activity area (Activity Area 8) located centrally within the site. A draft ODP has been included as **Appendix B**.

2.1.5 To ensure the effective delivery of the intended activities in the expanded ODP area, DEXIN also requests several amendments to the SPZ(PR) provisions, including the introduction, objectives, policies, activity rule framework, built form standards, matters of control/discretion and definitions (submission point 4) to ensure an appropriate range of activities are provided for on the subject site. This will be detailed further in subsequent evidence, and at this preliminary stage is envisaged to include a range of activities, such as farmers market and artisan product sellers showcasing local artisan wines, food and art/craft products, family orientated local tourism attractions (e.g. petting zoo), education, the potential for cultural workshops (e.g. carving), wellness/relaxation, visitor accommodation, events and residential activities.

2.1.6 A bespoke set of design guidelines will also be developed for the subject site and incorporated into the notified design guidelines for the SPZ(PR). It is not appropriate to apply the notified design guidelines as-is to the subject site without alteration as 1250 Main North Road is intended to have a complementary yet different design objective. The aesthetic of the development proposed on the subject site is based around the concept of a group of rural buildings in a rural landscape, as opposed to the aesthetic of the notified SPZ(PR) which is based around the character of the existing golf club buildings. Consequently, DEXIN also seeks amendments to the proposed design guidelines for this SPZ(PR) (submission point 5).

2.1.7 Associated consequential changes to general District Plan provisions may also be required, as set out in submission point 6. DEXIN seeks any subsequential or like amendments to district wide provisions to ensure that the plan provisions are suitably enabling.

RELIEF SOUGHT

2.1.8 DEXIN seeks that the SPZ(PR) and its associated Pegasus Resort ODP and Pegasus Design Guidelines be adopted, and the relief sought in submission points 2 to 6 of this submission be adopted in full.

2.1.9 Any consequential amendments are provided for to give effect to the relief sought by DEXIN in submission points 2 to 6.

2.2 SUBMISSION POINT 2 – INCLUSION OF ADDITIONAL LAND INTO THE SPECIAL PURPOSE ZONE (PEGASUS RESORT)

2.2.1 DEXIN **opposes** the proposed Rural Lifestyle zoning of the site at 1250 Main North Road.

2.2.2 DEXIN **supports in part** the extent of the proposed SPZ(PR), as notified.

2.2.3 DEXIN seeks to expand the proposed SPZ(PR) zone boundary to include land in its ownership at 1250 Main North Road, that is legally described as PT R S 864 Block VIII Rangiora SD (contained in record of title CB21A/964) (as identified in **Appendix A** to this submission). Limited additional strips of land adjacent to the 1250 Main North Road site will also be included, as shown in the ODP in **Appendix B**.

2.2.4 DEXIN considers that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site was recently purchased by DEXIN and is in an extremely prominent location, ideally suited to the development of a tourist destination. The site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township.

RELIEF SOUGHT

2.2.5 DEXIN seeks that the following land parcels be rezoned from Rural Lifestyle Zone under the proposed WDP to SPZ(PR):

- Part Rural Section 864 (contained in record of title CB21A/964).

2.2.6 DEXIN seeks that the following land parcels contained within the proposed SPZ(PR) Activity Area 6 (Golf Course) remain within the SPZ(PR), but may necessitate a change to their Activity Area overlay within the SPZ(PR) ODP:

- Part of Lots 97, 208 and 700 DP 417391 (contained in record of title 884357) and
- Strip of land to the north of the site which is currently a conservation purposes Drain Reserve Red Map 58 (No certificate of title).

2.2.7 Any similar amendments with like effect.

2.2.8 Any consequential amendments that stem from the amendments in paragraph 2.2.5 and 2.2.7.

2.3 SUBMISSION POINT 3 – PROPOSED AMENDMENT TO THE PROPOSED SPZ(PR) ODP

2.3.1 DEXIN considers that extending the SPZ(PR) to cover the subject site also necessitates an amendment to the proposed ODP covering the SPZ(PR) zone so that it can clearly direct development of the subject site in an integrated way with the wider SPZ(PR).

2.3.2 As a consequence, DEXIN seeks to develop a proposed ODP for the subject site. While an indicative ODP for the subject site is provided in **Appendix B**, a finalised ODP will be provided through evidence to support this submission at the plan review hearing. The site-specific ODP can then be incorporated into the overarching ODP for the SPZ(PR).

2.3.3 DEXIN proposes to develop the proposed ODP with input from key technical specialists including a landscape architect, ecologist, transport engineer, urban designer, economist, archaeologist and infrastructure engineer.

2.3.4 Importantly, DEXIN is proposing to underpin the proposed ODP with a detailed and comprehensive suite of technical reports to ensure that the proposed ODP effectively responds to the site and its rural and golf club context in the SPZ(PR), and to develop a set of provisions that appropriately responds to any resource management issues raised by the rezoning response and provides for an efficient use of land. DEXIN seeks relief through this submission to provide this additional technical evidence to underpin the SPZ(PR) ODP extension, with the intention that this technical evidence is circulated and consulted on before convening the hearing on the Waimakariri District Plan review.

2.3.5 DEXIN also intends to undertake consultation and engagement with local iwi during the preparation of the ODP, prior to the plan review hearing, in order to discuss incorporating potential walkway connections to the Pā site nearby. DEXIN seeks relief through this submission to provide the outcome of any consultation to underpin the ODP extension, with the intention that the outcome of any consultation is circulated before convening the hearing on the Waimakariri District Plan review.

2.3.6 An indicative ODP has been included as **Appendix B**, to provide an initial understanding of how the proposed ODP could progress. This indicative ODP is a preliminary draft, and is subject to change, based on the inputs of the technical experts and process outlined above.

2.3.7 The following provides a brief overview of the key matters to be addressed within the proposed ODP:

<u>New Activity Areas</u>

2.3.8 In developing the proposed ODP, DEXIN will identify activity areas on the subject site that are suitable for agricultural tourism and residential development that integrate with the SPZ(PR) as notified, the adjoining State Highway and surrounding road network.

<u>Activity Area 7B: Medium Density Residential</u>

2.3.9 It is envisaged that the core of the subject site will be bordered on three sides by residential activity. It is likely the subject site would accommodate approximately 40 houses in the form of terraced housing or semi-detached townhouses. Lot sizes are anticipated to have an average size of 200m^2-300m^2, and the appropriate density will be informed by further technical reporting and analysis. Design controls would be developed to ensure appropriate bulk and location controls for the area, such as a maximum height of 16m. Again, these

design details are indicative only and the final design will be based on advice received from appropriate technical experts.

Activity Area 8: Agricultural Tourism

2.3.10 It is anticipated that the agricultural tourism activity area will cover the majority of the subject site (approximately 16,500m^2). At this preliminary stage the area is envisaged to include a range of activities, such as farmers market and artisan product sellers showcasing local artisan wines, food and art/craft products, family orientated local tourism attractions (e.g. petting zoo), education, wellness/relaxation, visitor accommodation, special events, and the potential for cultural workshops (e.g. carving).

2.3.11 The design intention for this area is based on New Zealand agricultural architecture. Buildings are intended to be larger scale/volume, similar to farm buildings, with a maximum height of 12m. It is envisaged this activity area will retain a high proportion of open space (approximately 50 percent) to ensure the site retains a rural landscape character.

2.3.12 It is also envisaged that this activity area will provide for a tall marker structure to signal the mākete. This could incorporate the re-creation of a working mill, or water tower, as the site contains the remains of the original flour mill which serviced the district.

Other areas

2.3.13 The ODP for the subject site will also incorporate appropriate landscape buffer zones and ecological corridors, lake extensions and stormwater management areas, to ensure any potential adverse effects resulting from subsequent site development are appropriately mitigated.

2.3.14 It is also intended that the subject site will contain pedestrian and cycle connections through the site, with potential linkages to the Ravenswood Walkway or to the nearby Pā site, subject to the outcome of iwi consultation.

State Highway Connections and Internal Roads

2.3.15 It is envisaged that the proposed ODP will identify key access/secondary access points, and will be developed in conjunction with a transport engineer and in consultation with NZTA.

2.3.16 An initial review of the proposed ODP and indicative activity types and areas has been undertaken by Abley, to determine a conservative estimate of trip generation and likely implications for the surrounding roading network (refer **Appendix D**). The conclusion of this high-level assessment was that expanding the SPZ(PR) to cover the site at 1250 Main North Road is not anticipated to create significant transportation effects.

2.3.17 The access arrangements of the site have been determined by Abley to be satisfactory, with a range of potential access options identified. The final determination on access points will be made following more detailed design, modelling and technical assessment by Abley. Further information will be provided regarding proposed access arrangements prior to the hearing.

RELIEF SOUGHT

2.3.18 DEXIN seeks that the existing ODP covering the SPZ(PR) is amended to incorporate the site at 1250 Main North Road, including the provision of two new activity areas: Activity Area 7B – Medium Density Residential and Activity Area 8 – Agricultural Tourism.

2.3.19 An indicative ODP has been included as **Appendix B** to this submission. DEXIN seeks relief through this submission to provide an updated and amended version of this ODP, as well as

additional technical reports and assessment to underpin how the proposed ODP has been derived and to support its inclusion within SPZ(PR). The intention that this ODP and technical evidence is circulated before convening the hearing on the SPZ(PR) chapter of the plan review.

2.3.20 The above technical reports will seek to ensure that the proposed ODP is effective in responding to the likely resource management issues raised by this rezoning response.

2.3.21 DEXIN also seeks any consequential amendments to the District Plan that may arise from the inclusion of the ODP as sought in paragraphs 2.3.18-2.3.20.

2.4 SUBMISSION POINT 4 – AMENDMENTS TO THE SPZ(PR) CHAPTER PROVISIONS

2.4.1 To ensure the effective delivery of the range of proposed activities (market/agricultural tourism/wellness/events/visitor accommodation/residential) in the new ODP area, DEXIN also requests several amendments to the SPZ(PR) chapter provisions, including the following:

1. Amendments to the SPZ(PR) introduction to incorporate reference to the proposed additional activity areas on the site at 1250 Main North Road, and inclusion of area descriptions:
    a. Activity Area 7B: Residential (Medium Density); and
    b. Activity Area 8: Agricultural Tourism;
2. Amendments to objective SPZ(PR)-O1 (tourist destination) to include reference to the establishment of medium density residential activity and agricultural tourism activities, and/or inclusion of a new objective if necessary;
3. Amendments to policy SPZ(PR)-P1 to include reference to medium density residential and agricultural tourism;
4. Amendments to policy SPZ(PR)-P4 (provision of commercial activities) to ensure agricultural tourism commercial activities are provided for;
5. Amendments to policy SPZ(PR)-P5 (urban design elements) to add scope for the consideration of agricultural architecture design within Activity Area 8 (Agricultural Tourism);
6. Amendments to policy SPZ(PR)-P9 (residential development) and/or inclusion of a new policy to provide for medium density residential activity within proposed Activity Area 7B (Medium Density Residential);
7. Inclusion of a new policy or policies which specifically relate to proposed Activity Areas 7B (Medium Density Residential) and 8 (Agricultural Tourism) and which enables the establishment of the proposed activities;
8. Amendments to the existing activity rule framework, built form standards, and matters of control and discretion that relate specifically to the new medium density residential area and agricultural tourism area.

2.4.2 It is also proposed to include a new definition of 'agricultural tourism activities', as the intended activities are not sufficiently covered by the 'commercial golf resort activity' definition.

RELIEF SOUGHT

2.4.3 DEXIN seeks that the existing SPZ(PR) chapter provisions are amended to incorporate the new activity areas (Activity Area 7B – Medium Density Residential and Activity Area 8 – Agricultural Tourism) on the site at 1250 Main North Road, as outlined in paragraph 2.4.1 above, as well as a new definition of 'agricultural tourism activities'.

2.4.4 DEXIN seeks relief through this submission to provide an updated and amended version of the chapter provisions, as well as additional technical reports and assessment (including but not limited to including a landscape, ecology, transport, urban design, economic, archaeology and infrastructure) to underpin how the provisions have been derived and to

support their inclusion within SPZ(PR) chapter. It is intended that the amended provisions and technical evidence are circulated before convening the hearing on the SPZ(PR) chapter of the plan review.

2.4.5 The above technical reports will seek to ensure that the proposed provisions (in conjunction with the amended ODP requested under submission point 3 and the amended Design Guidelines requested under submission point 5) are effective in responding to the likely resource management issues raised by this rezoning response, and appropriately responds to the character and intent of the SPZ(PR).

2.4.6 DEXIN also seeks any consequential amendments to the District Plan that may arise from the inclusion of the amended provisions as sought in paragraphs 2.4.3-2.4.5.

2.5 SUBMISSION POINT 5 – CHANGES TO DESIGN GUIDELINES

2.5.1 There are two new elements proposed on the subject site that are not anticipated by the Design Guidelines as notified for the SPZ(PR) – the development of an agricultural tourism activity area and the development of medium density residential housing. The design of future development within the agricultural tourism activity area is intended to be based around traditional New Zealand agricultural architecture, to ensure a high level of authenticity (including cottages, barns, wool stores, mills and grain silos). The design objective for this activity area is to represent a group of rural buildings in a rural landscape. As this is a different design objective to the main SPZ(PR), changes will be required to the proposed design guidelines. Further, the development of medium density residential activity on the borders of the site is a new aspect not covered by the design guidelines. Consequently, changes will be required to the design guidelines to provide for Activity Area 7B (Medium Density Residential) to effectively integrate the residential development with the SPZ(PR).

2.5.2 DEXIN therefore seeks relief to develop bespoke design guidelines for the subject site and provide these as evidence to support this submission at the plan review hearing. It is intended that the existing Design Guidelines for the SPZ(PR) will be amended to include two new sections for the two new activity areas (7B and 8). This submission also seeks relief to undertake any required amendments to the general sections of the existing design guidelines as required (Section 1 Introduction, Section 2 Built Form, Section 2.7 Access, Section 2.8 Safety, Section 3 Landscape, Appendix 1). Any such changes will be identified and proposed as part of evidence provided.

2.5.3 DEXIN proposes to engage key technical specialists (including an urban designer and landscape architect) to develop the proposed design guidelines with input from other key technical specialists where required (such as an ecologist, transport engineer, economist, archaeologist and infrastructure engineer).

2.5.4 DEXIN is proposing to underpin the proposed design guidelines with a detailed and comprehensive suite of technical reports to ensure that the proposed design guidelines are effective in responding to the likely resource management issued raised by this rezoning response. DEXIN seeks relief through this submission to provide this additional technical evidence to underpin the amendments to the design guidelines, with the intention that this technical evidence is circulated before convening the hearing on the Waimakariri District Plan review.

2.5.5 DEXIN also intends to undertake consultation with local iwi during the preparation of the design guidelines, prior to the plan review hearing, in order to discuss incorporation of design input from local iwi. DEXIN seeks relief through this submission to provide the outcome of any consultation to underpin the SPZ(PR) extension, with the intention that the

outcome of any consultation is circulated before convening the hearing on the Waimakariri District Plan review.

RELIEF SOUGHT

2.5.6 DEXIN seeks that proposed Design Guidelines covering proposed Activity Areas 7B and 8, on the subject site be incorporated into the SPZ(PR)-APP2 – Pegasus Design Guidelines.

2.5.7 DEXIN also seeks relief to undertake any required amendments to the general sections of the existing design guidelines as required (Section 1 Introduction, Section 2 Built Form, Section 2.7 Access, Section 2.8 Safety, Section 3 Landscape, Appendix 1).

2.5.8 DEXIN seeks relief through this submission to provide these proposed design guidelines prior to the hearing, as well as additional technical reports and assessment to underpin how the amendments to the design guidelines have been derived and to support their inclusion within SPZ(PR)-APP2 – Pegasus Design Guidelines. The design guidelines and technical evidence are to be circulated before convening the hearing on the SPZ(PR) chapter of the plan review.

2.5.9 DEXIN also seeks any consequential amendments to the District Plan that may arise from the inclusion of the design guidelines as sought in paragraphs 2.5.6-2.5.8.

2.6 SUBMISSION POINT 6 – CHANGES TO OTHER DISTRICT PLAN PROVISIONS

2.6.1 Associated changes to the general district plan provisions may also be required to ensure development within the 1250 Main North Road site, and the associated small adjacent areas of land is suitably enabled. As part of this submission DEXIN seeks to ensure any consequential amendments to district-wide provisions within the proposed plan (where they are relevant to development of the subject site) are provided for.

RELIEF SOUGHT

2.6.2 DEXIN seeks relief to enable any consequential amendments to proposed district-wide plan provisions which apply to the subject site, where they do not align with the development intention of this submission. Any proposed changes to the district wide provisions would be identified and circulated to submitters prior to the hearing.

3.0 CONCLUSION

3.1 DEXIN wish to be heard in support of this submission.

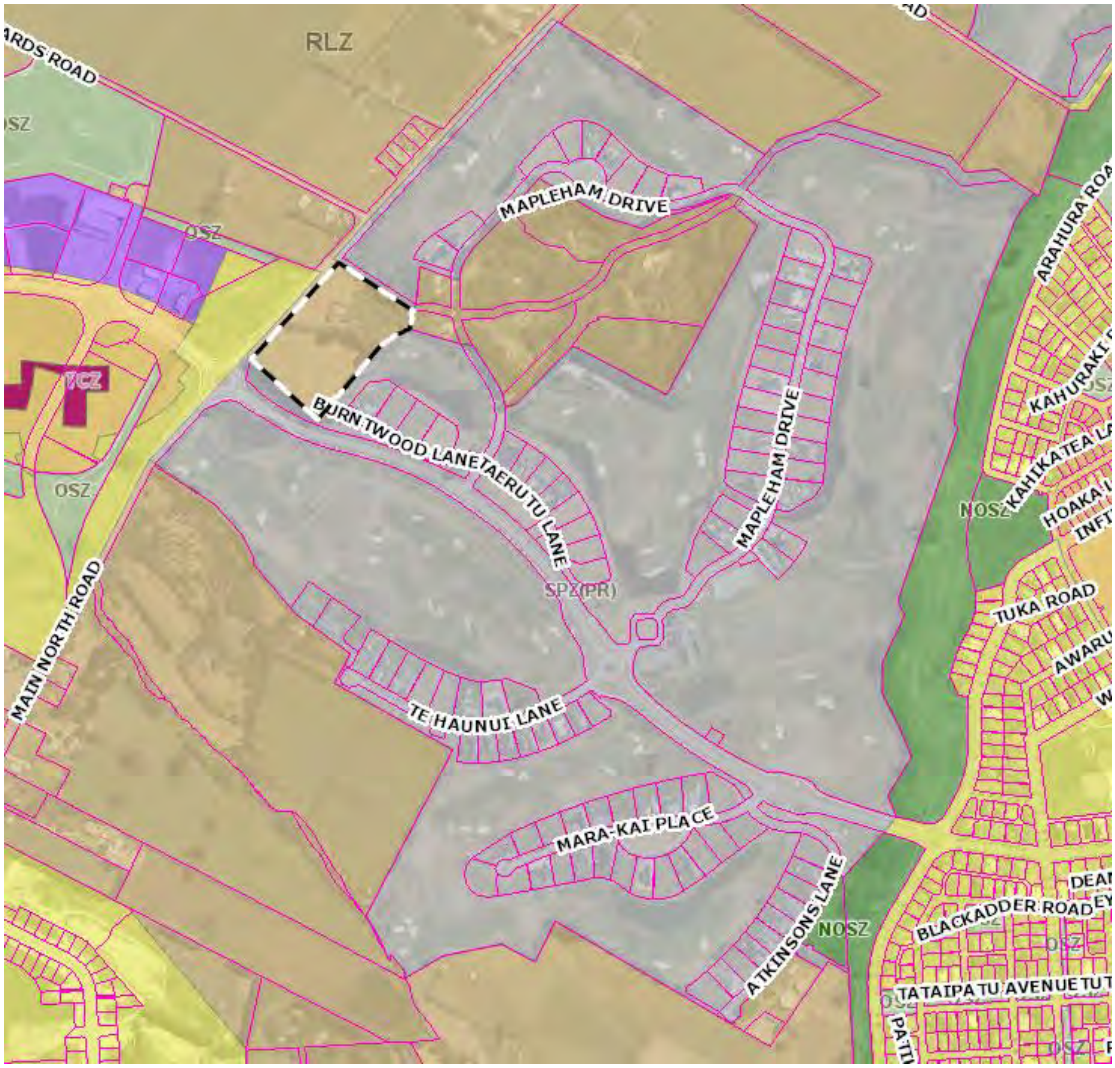
3.2 If others make a similar submission DEXIN would consider presenting a joint case with them at any hearing.

3.3 DEXIN cannot gain an advantage in trade competition through this submission.

Signature:	
	pp on behalf of: Sam Huo DEXIN Investment Ltd
Date:	26th of November 2021
Address for Service:	DEXIN Investment Limited C/- 4Sight Consulting Limited 77 Stuart Street Dunedin 9016 Attention: Emma Spalding
Phone:	027 696 1009
E-mail:	emmas@4sight.co.nz

Appendix A - 1250 Main North Road

(Site illustrated by black and white dotted line)



Appendix B: Indicative Outline Development Plan

Appendix C

Pegasus Mākete

Pegasus Mākete

JOSEPH & ASSOCIATES LTD

JamesLunday UrbanDesign Ltd.

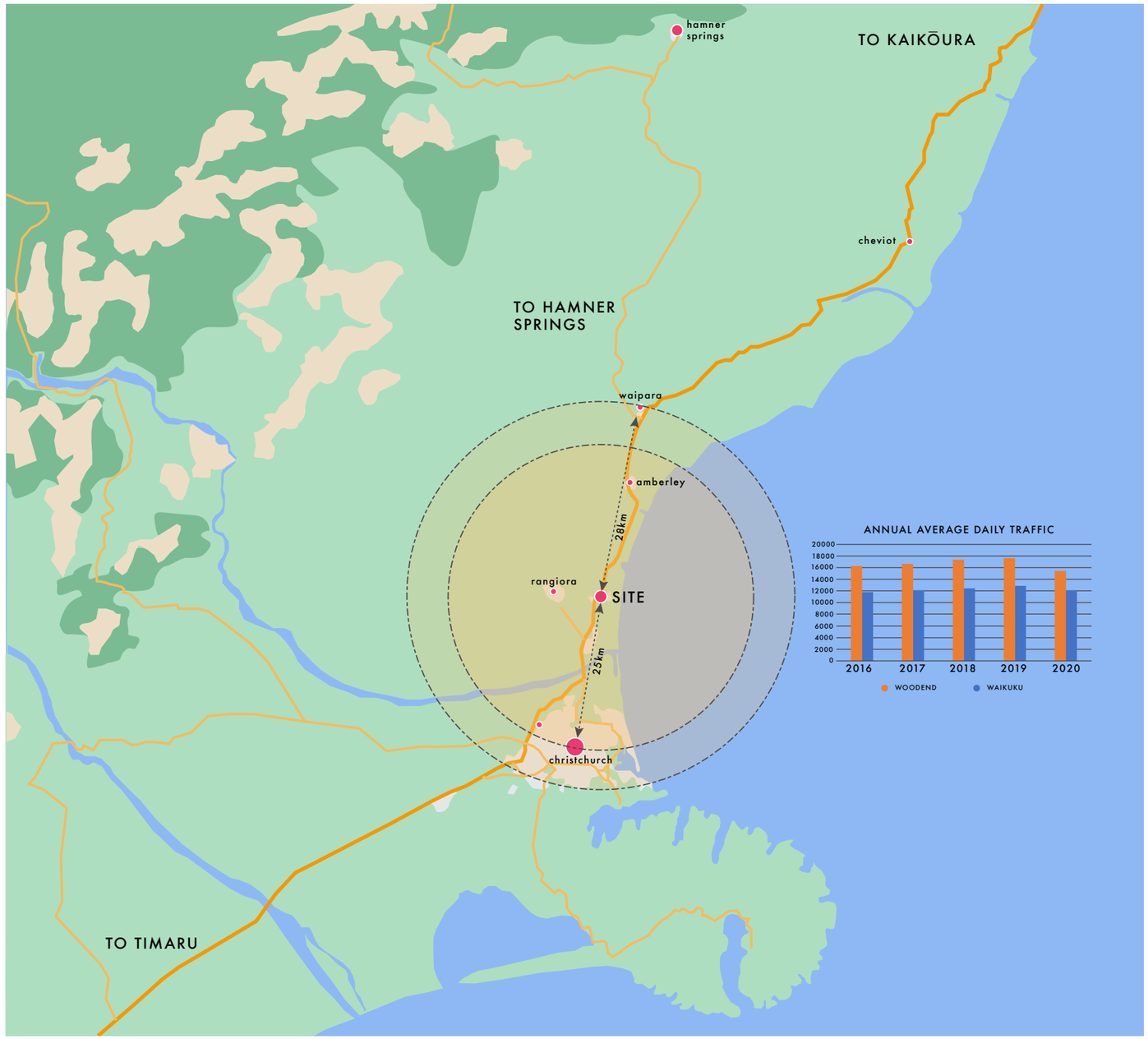
Context

Pegasus Mākete sits mid way between Christchurch and the Waipara wine district.

It is on the State Highway collecting passing business on its way to or from Hamner Springs and Kaikōura .

It is also an easy 25 Km drive from Christchurch.

This location has the perfect conditions to be a visitor destination and also a Gateway opportunity for Pegasus Town. It has around 18000 vehicles passing the site daily.

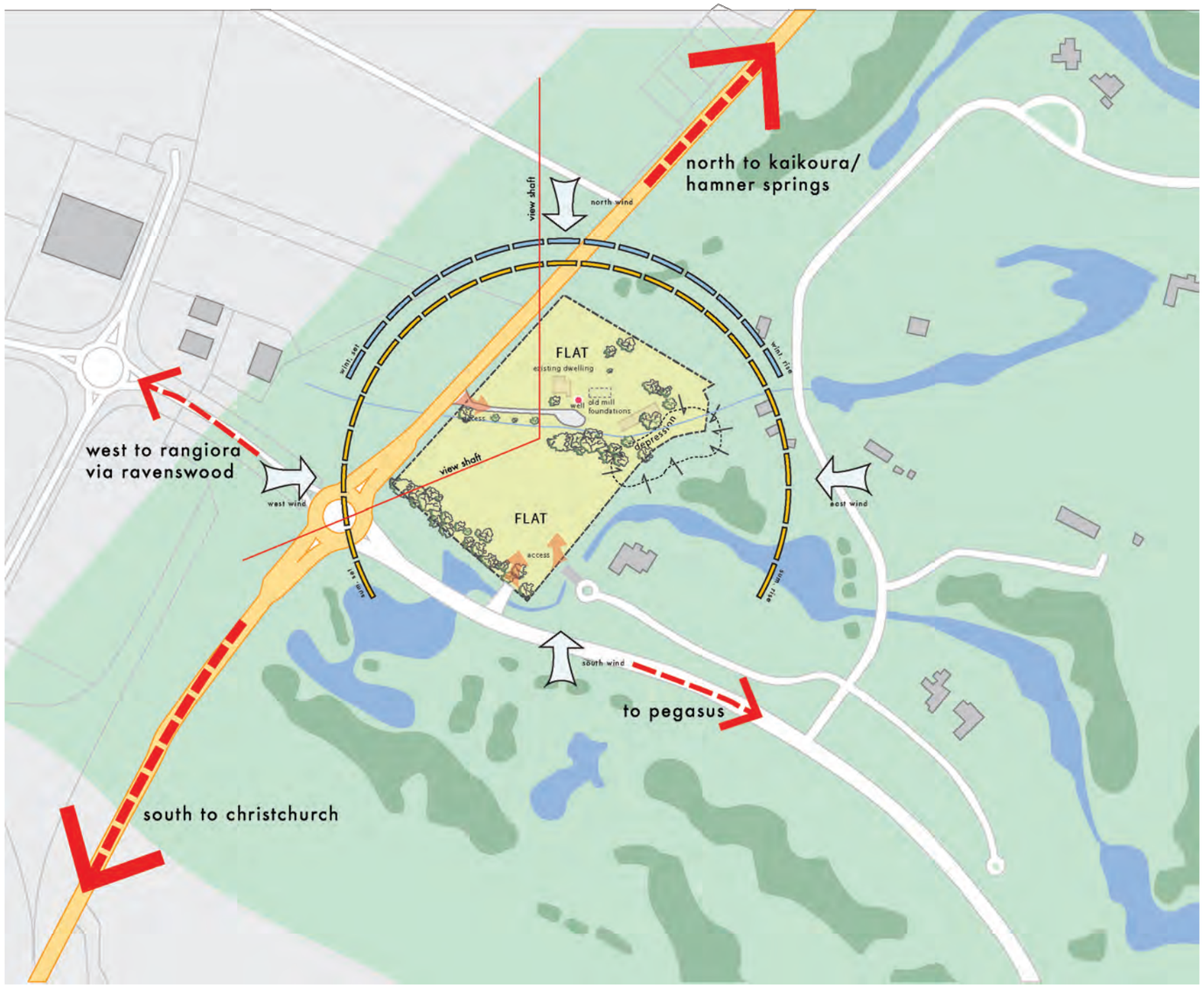


JOSEPH & ASSOCIATES LTD

JamesLunday UrbanDesign Ltd.

Context

The site is blessed with many assets besides its State Highway location. It is completely surrounded by Pegasus International Golf Course. It is directed by the Taranaki Stream. It is a flat and easily developed site but with the opportunity to rewind the stream and create waterbodies increasing biodiversity and *mahinga kai*. On the stream is the remains of the original flour mill for the Distr ict. There are two existing access routes into the site. Adjacent properties and significant planting protects the site from prevailing easterly winds.



JOSEPH & ASSOCIATES LTD

JamesLunday
UrbanDesign Ltd.

Canterbury Maps

Information has been derived from various organisations, including Environment Canterbury and the Canterbury Maps partners. Boundary information is derived under licence from LINZ Digital Cadastral Database (Crown Copyright Reserved). Environment Canterbury and the Canterbury Maps partners do not give and expressly disclaim any warranty as to the accuracy or completeness of the information or its fitness for any purpose.

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.

N

0 0.01 0.02 0.03 0.04 Kilometres

Scale: 1:1,000 @A3

Map Created by Canterbury Maps on 28/10/2021 at 12:36 PM

LEGEND

- Activity Area 7B: MEDIUM DENSITY RESIDENTIAL 10,220m2
- Activity Area 8: AGRICULTURAL TOURISM 16,460m2
- BUFFER ZONE 1,420m2
- ECOLOGICAL CORRIDOR ZONE 2,340m^2

Main North Road

Main North Road

Mapleham Drive

1250

70

10

8

Pegasus Boulevard

Burntwood La

Outline Development Plan

Scale 1:1000 @ A 3

JOSEPH & ASSOCIATES LTD

JamesLunday UrbanDesign Ltd.

Local Market

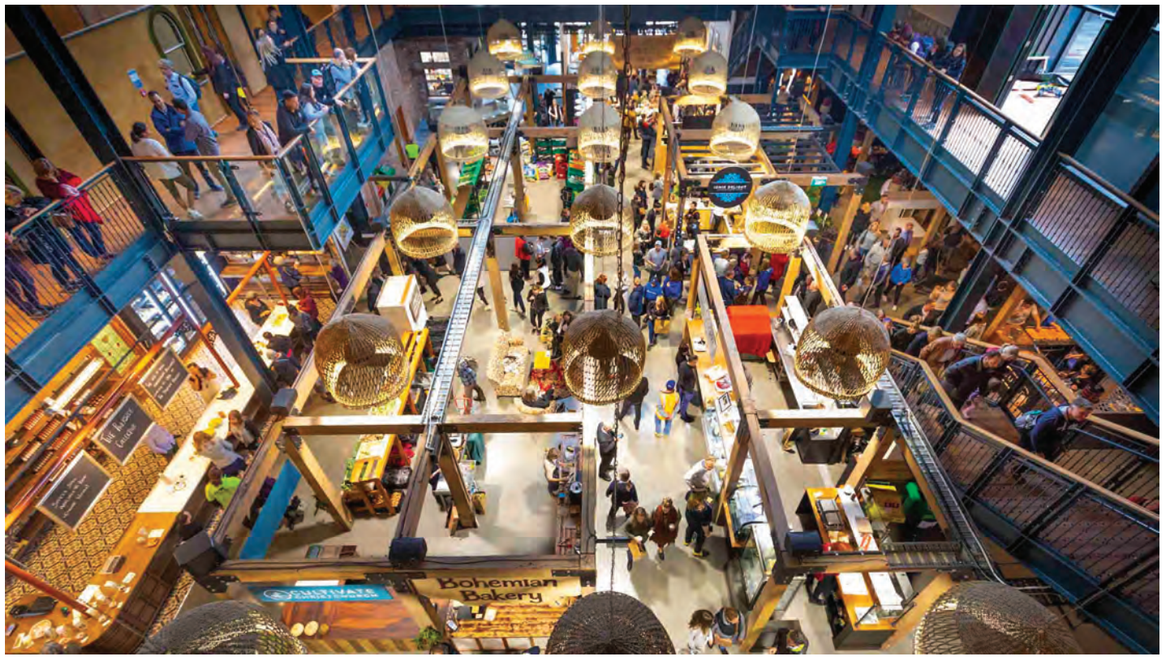
We see the foundation of this site as being a local farmers market. We have identified Matakana Market as a precedent . The market can take advantage of the local and proposed landscape features. The market would be supplemented by visitor attractions aimed at the families and would showcase local artisan wines, food and art/craft products.

We would recreate a mill powered by water and wind so that local grains can be processed. *Mahinga Kai* would be a strong educational feature. There would be wellbeing opportunities, events and weddings, as well as overnight accomodation.

It would be the aim to make this the major attraction between Christchurch and Kaikōura. This will reinforce visitors to Pegasus, Pegasus Golf Course and Pegasus Hot Pool and Village. To the North and east the site is ringed by Golf course housing further integrating this development with the Golf Course.

JOSEPH & ASSOCIATES LTD

JamesLunday UrbanDesign Ltd.



JOSEPH & ASSOCIATES LTD

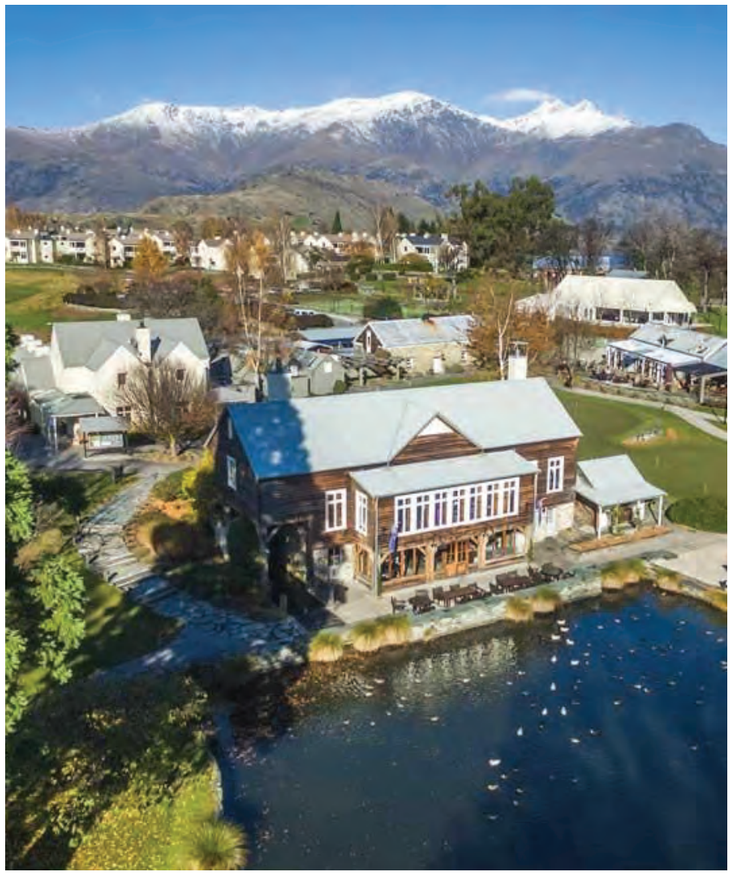
JamesLunday UrbanDesign Ltd.

Local Agricultural Architecture Design Language For Proposed Facility Buildings

We intend to draw the architecture from traditional New Zealand agricultural; buildings and structures to ensure a high level of authenticity . This includes cottages, barns, wool stores, mills and grain silos.

JOSEPH & ASSOCIATES LTD

JamesLunday UrbanDesign Ltd.



JOSEPH & ASSOCIATES LTD

JamesLunday UrbanDesign Ltd.

Landscape Focal Point

Given access to the site it is important that we create tall markers that signal the Mākete. We could use windmill water tower as significant but functional structures that act as landmarks.

Agricultural Experience

We see education as a large part of this experience. We have become distant from where our food comes from and how we can produce it in a more sustainable way. There isn't any other farm and food experience opportunity in the wider area.

Family Entertainment

There is a lack of outdoor family entertainment within Canterbury. We intend that entertainment that is fun and educational is delivered as part of the development offering: this includes every aspect of rural and pre agricultural opportunities expressed in active play.

JOSEPH & ASSOCIATES LTD

JamesLunday
UrbanDesign Ltd.

Relaxation Zone

For the adult family there will be opportunities for relaxation, enjoying local produce, massage, yoga and craft classes. This is all set within a beautiful car free environment.

JOSEPH & ASSOCIATES LTD

JamesLunday UrbanDesign Ltd.

Educational Opportunity

This is an opportunity for learning about nature and sustainable practices both outdoors and under cover. Ideal for schools, clubs and Universities to use for learning purposes.

JOSEPH & ASSOCIATES LTD

JamesLunday
UrbanDesign Ltd.

Workshops & Events

This area has a deeper history can be represented not only through mahinga kai but in weaving, carving and greenstone and traditional food. Engagement with iwi will be important in respect to the deeper history and how this story could be told.

This can be reinforced by tradition crafts of food production, furniture making, jewellery right through to artists studios and galleries.

Appendix D

Ableу Transportation Review

Transport + Location Intelligence

Pegasus Resort Special Purpose Zone Expansion

Prepared for: DEXIN Investments Limited

Issue Date: 25 November 2021

Prepared by: Ravindu Fernando, Senior Transportation Engineer

Reviewed by: Jay Baththana, Principal Transportation Engineer

1. Introduction

DEXIN Investments Limited wishes to expand the currently proposed Pegasus Resort Special Purpose Zone (SPZ(PR)) to cover the site at 1250 Main North Road at the eastern corner of the SH1/ Pegasus Boulevard/ Bob Robertson Drive roundabout. The land parcel is currently zoned rural. **Figure 1.1** shows the location of the proposed site in context of the Outline Development Plan for Pegasus Resort.

Figure 1.1 Proposed ODP expansion area

T +64 9 486 0898 (Akld)
T +64 3 377 4703 (Chch)
E admin@abley.com

Auckland
Level 1, 70 Shortland Street
PO Box 613
Auckland 1140
New Zealand

Christchurch
Level 1, 137 Victoria Street
PO Box 36446
Christchurch 8146
New Zealand

www.abley.com

2. Proposed Development

The proposal is to establish two additional activity areas within the SPZ(PR) to provide for an agricultural tourism activity area (containing activities such as a farmers market style commercial area, containing local small scale tourism activities (e.g. artisan wine sales, petting zoo), cultural workshops (e.g. carving), education facilities, special events, visitor accommodation and wellness/relaxation activities), and a medium density residential area. A conceptual outline development plan for the proposed expansion site is shown in Figure 2.1. The site is proposed to be serviced by three main vehicle accesses, two on SH1 and one on Pegasus Boulevard. Additionally, two other accesses will connect the site to Mapleham Drive and Burntwood Lane, these accesses will mainly be for walking and cycling access to/from the site.

Figure 2.1 Outline Development Plan of the proposed site

3. Assessment of Transport Effects

3.1 Trip Generation and Distribution

The unique nature of the proposed activities, in particular the tourist focused retail and recreational component, and the significant proportions of trip chaining between the activities and Pegasus Resort, means a combination of first principles and available trip rates is required to quantify the trip generation. The scale of the activities used in projecting the trip generation has been provided by the client and the design team. This scale are indicative only as the detail of the development has not yet been finalised. However, we understand that they generally correspond to the upper end of the capacity that the development could potentially be. Hence the trip generation is expected to be conservative. **Table 3.1** outlines the trip generation.

Table 3.1 Projected trip generation

Activity	*Physical Capacity*	*Trip Rate*	*First Principal Assumptions*	*Discount for Trip Chaining*	*Daily Trip Generation*
Commercial (Agri Tourism Zone)					
Retail/ Market	25 stalls	18 trips/day (RTA)	The retail component operates as a tourist focused, high end market. Each vendor regardless of whether they are permanently based in the facility or pop-up for weekend is considered as a single stall. RTA guidelines note "Traffic generation was found to be a function of the number of stalls involved, and not the site area which is a site-specific variable depending on the available spaces."	30% assumed to be linked to outdoor experience component.	315
Outdoor Experience (e.g. petting zoo/ animal interaction area)	400 people/ day	3 people/ vehicle	Maximum facility occupancy is assumed to be 100 people. Assumes visitors spend 2-hour blocks at maximum capacity.	30% non vehicular traffic associated with the Pegasus Resort. Visitors to both facilities.	187
Tourism accommodation	50 rooms	4 trips/ day	More conservative than RTA rate specified for motels which is 3 trips/day.	40% assumed to be linked with other components of the site.	120
Residential					
Terraced housing	40 terraced houses	5 trips/ day	RTA trip rate for medium density residential	N/A	200
Total Daily Trip Generation					***822***

The peak day is expected to be a weekend day given majority of the trips are associated with the Agricultural Tourism Activity Area . Majority of the visitors to the development are anticipated to be from Christchurch where families will be combining a visit to the spa pools, golf course and the markets as a day trip.

The peak hour trip generation is expected to be 20% of the daily trips for the commercial component and 10% of the daily trips for the residential component. Accordingly, the peak hour trip generation is expected to be 144 trips/ hour. Given the modest peak hour trip generation and that the peak is likely to be during the weekend, hence not coinciding with commuter traffic, the effects on the wider network from the proposed expansion is expected to be minimal.

The origin/ destination of the trips has been estimated to work out the trip distribution and the access usage. This is outlined in Table 3.2 and is primarily based on judgement and approximately population distribution in the region.

Table 3.2 Trip Origin and Destination

Trip Origin	% of trips	% of pass by trips
SH1 North (Amberly/ north of South Island)	25%	75% (75% of all trips originating from north will depart to south) These are mainly tourists on the north to south tourist trail.
SH1 South (Christchurch, Kaiapoi etc.) Mainly Christchurch residents visiting the Resort area as a day trip.	60%	10% (10% of all trips originating from south will depart to north)
West arriving through Bob Robertson Drive (Rangiora, Ravenswood)	10%	None
East (Pegasus town)	5%	None

3.2 Access Arrangement

The site is expected to be serviced by three vehicle accesses. Given the high traffic volumes on SH1, 70km/h rural speed limit and the proximity of the accesses to a major intersection, at this stage it is assumed that the two access on SH1 will operate Left In and Left Out only. There are a range of other access options which will be investigated in a road safety and operational perspective through the detailed design and technical reporting phase with further assessment yet to be undertaken. However, for the purposes of this high-level review, we have based the assessment on Left In, Left Out only, as this is identified as a preliminary feasible design option for the site. The distribution of the peak hour trips by the vehicle access is shown in **Figure 3.1** and **Figure 3.2.**

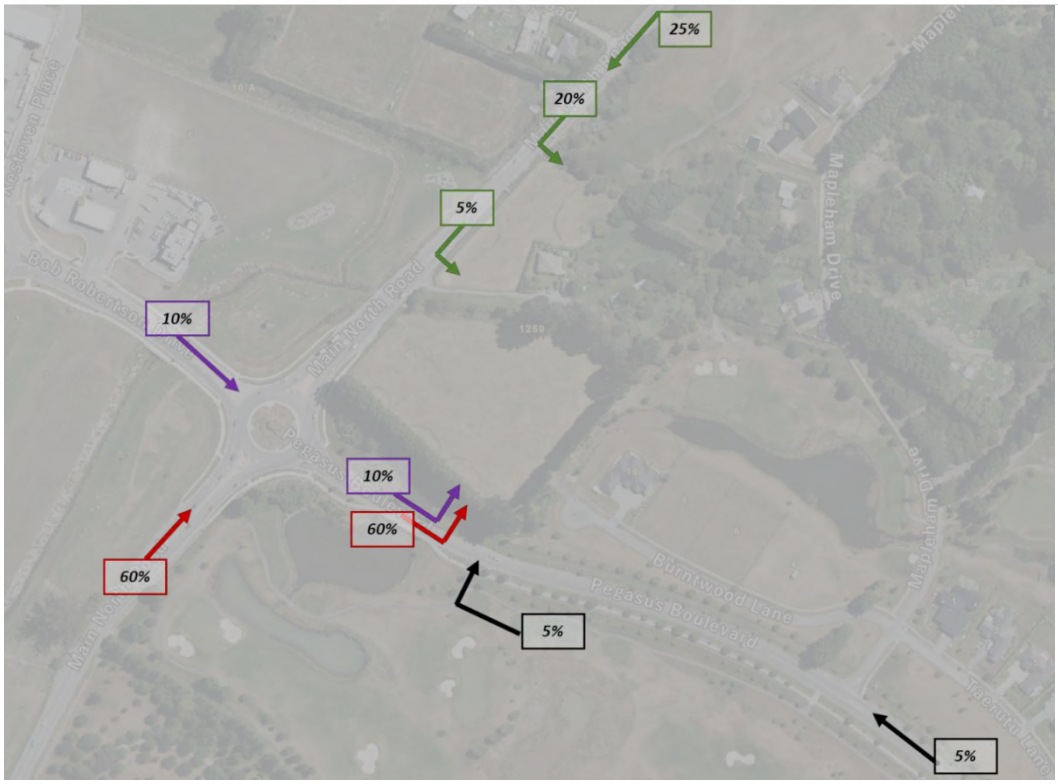


Figure 3.1 Peak hour trip distribution - Entry

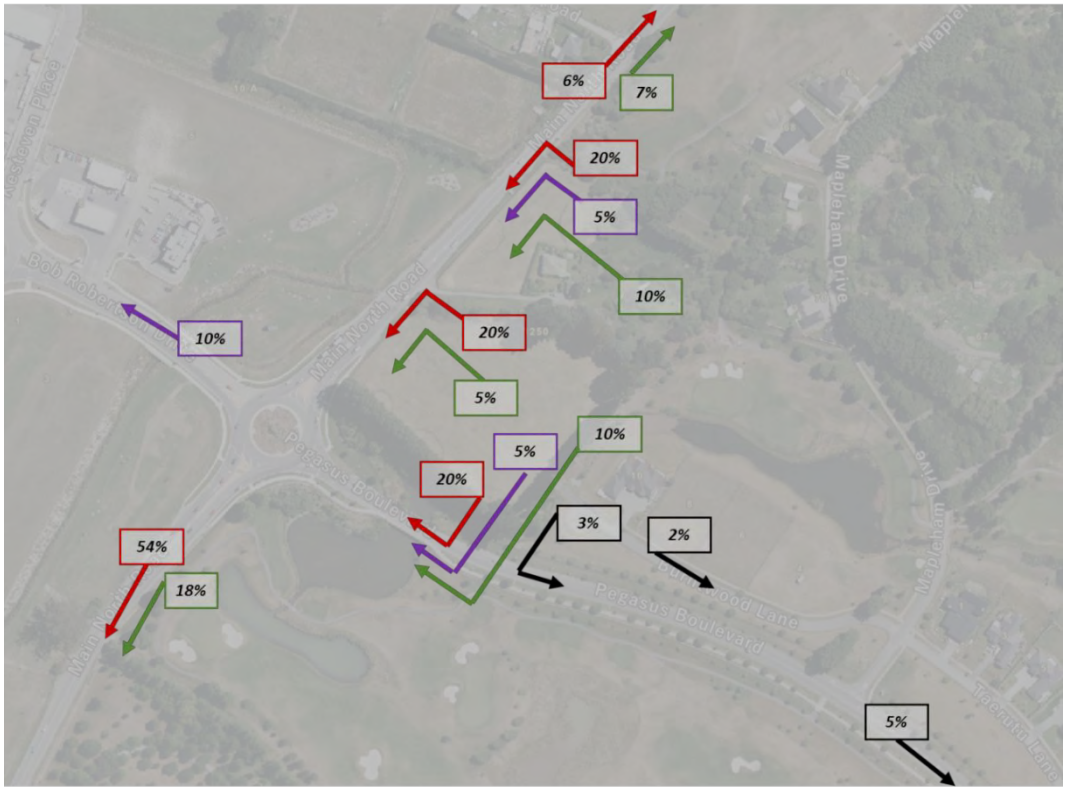


Figure 3.2 Peak hour trip distribution - Departures

Given the nature of the site operation, particularly the outdoor recreational activity that is expected to operate in two-hour blocks, it is assumed that the peak hour trips are split equal between entries and departures. Based on this assumption the turning movements at each access are shown in figure 3.3.

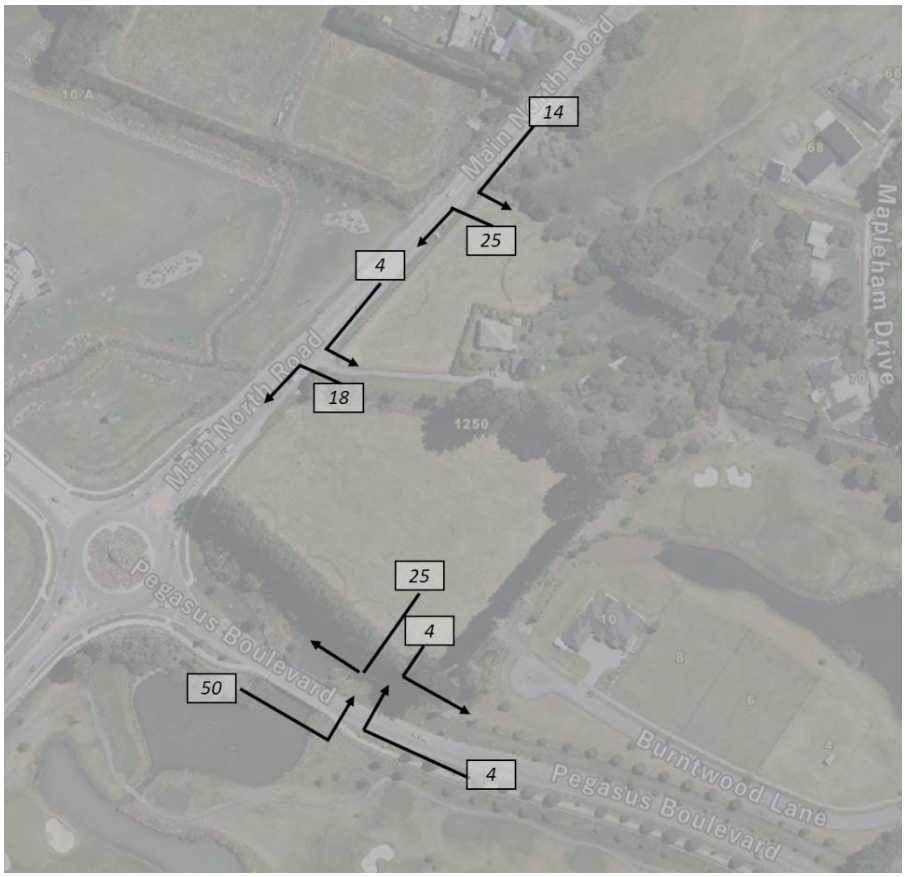


Figure 3.3 Peak hour trip distribution at site accesses

The busiest site access will be the one on Pegasus Boulevard. Whether this access point will be considered as an accessway or an intersection will primarily depend on whether the internal roads will serve only the development traffic, i.e. whether roads will operate as private roads or public roads. The proposed Waimakariri District plan defines accessways as “any area of land the primary purpose of which is to provide access, including vehicle access, between the body of any allotment(s) or site(s) and any vehicle crossing. Accessway includes any rights of way, private way, access lot, access leg or private road”.

If the access is to operate as an intersection it does not meet the Waimakariri District plan’s rule regarding separation between intersections which states for a speed limit of 70 or 80km/h the separation between intersections should be a minimum of 550m. The distance between the proposed access and the SH1/ Pegasus Boulevard roundabout is approximately 120m. Notwithstanding the potential non-compliance, the site access is expected to operate safely given that the predominant movement will be left tuning in which are not conflicted with any other movements at the access.

Furthermore, roundabouts are highly effective in reducing vehicle speeds and therefore eastbound vehicles on Pegasus Boulevard near the site access is expected to have lower operating speeds than the posted speed limit of 70km/h. We are also aware that Waka Kotahi is currently assessing the speed limits on the state highway network nationwide and 70km/h speed limits are being phased out in favour of 60km/h or lower speed limits. The land use along Pegasus Boulevard is also expected to change significantly as a result of the Pegasus Resort and the resulting increase in active transport users on the road. Accordingly, 70km/h will not be a safe and appropriate speed for Pegasus Boulevard in future and the speed limits are expected to reduce in future. It is envisaged that a 50km/h east of the State Highway will be a more appropriate posted speed limit.

3.3 Walking and Cycling

Facilities within the site will be developed to a high standard for walking and cycling. Dedicated walking and cycling accesses have also been proposed to Burntwood Lane and Mapleham Drive which are low speed roads attractive for walking and cycling. A strong walking and cycling desire line are expected between Pegasus Resort and the proposed facility given a high proportion of trip chaining. Therefore, the expansion of the SPZ(PR) will provide strong pedestrian and cycle connectivity to the existing and proposed infrastructure in the vicinity of the site. It is worth noting that the form of the Pegasus Boulevard and Main North Road intersection is likely to change when Ravenswood and Pegasus residential areas are fully developed. Providing the opportunity to upgrade pedestrian and cycle connectivity across the State Highway.

4. Conclusion

In our opinion, expanding the SPZ(PR) area to 1250 Main North Road is not anticipated to create significant transportation effects given the high volume of trip chaining expected between developments and the peak traffic demand not coinciding with the weekday commuter peaks. The anticipated peak hour trip generation of 144 two-way trips split across three accesses is not anticipated to have adverse effects on the operation of the road network. A detailed transport modelling assessment is recommended prior to the hearing to validate these findings and inform the intersection design and speed limit for Pegasus Boulevard

This document has been produced for the sole use of our client. Any use of this document by a third party is without liability and you should seek independent traffic and transportation advice. © Abley Limited 2021 No part of this document may be copied without the written consent of either our client or Abley Ltd. Please refer to https://abley.com/output-terms-and-conditions/ for our output terms and conditions.

FURTHER SUBMISSION TO THE PROPOSED WAIMAKARIRI DISTRICT PLAN 2021

TO:	Proposed District Plan Further Submission Waimakariri District Council Private Bag 1005 RANGIORA 7440
E-MAIL:	developmentplanning@wmk.govt.nz
FURTHER SUBMISSION ON:	Proposed Waimakariri District Plan 2021
NAME OF SUBMITTER:	DEXIN Investment Limited
ADDRESS FOR SERVICE:	DEXIN Investment Limited C/- 4Sight Consulting Limited Level 1, The Chamberson 77 Stuart Street Ōtepoti/Dunedin 9016 Attention: James Nicol
EMAIL:	jamesn@4sight.co.nz
PHONE:	027 957 1353

1.0 INTRODUCTION

DEXIN Investment Limited (**DEXIN**) made a primary submission (Council Submitter Number 377) on the Proposed Waimakariri District Plan (PDP) regarding the inclusion of a site at 1250 Main North Road (and small areas of adjacent land) into the Special Purpose Zone (Pegasus Resort) (SPZ-PR). The purpose of this submission was to both support the proposed provisions and seek an extension to the extent of zoning of the SPZ-PR, as well as to seek further amendments to several SPZ-PR provisions, to enable the development of the 1250 Main North Road site within two new activity areas.

As part of DEXIN's original submission, DEXIN sought scope to introduce an amended set of SPZ-PR provisions, including an amended ODP and additions to the Pegasus design guidelines. It was also noted that a range of technical reports would be introduced through the further submission process prior to the plan review hearing in support of the submission. The following reports are now available, and have been included as appendices to this further submission:

Appendix 1:	Amended SPZ-PR chapter provisions
Appendix 2:	Consequential Amendments to District Wide Provisions
Appendix 3:	Amended Outline Development Plan
Appendix 4:	Amended Pegasus Design Guidelines
Appendix 5:	Indicative Mākete Masterplan prepared by Dalman Architects
Appendix 6:	Section 32AA Report, prepared by 4Sight Consulting
	Economic Assessment, prepared by Property Economics
	Integrated Transport Assessment, prepared by Abley
	Ecology Assessment, prepared by 4Sight Consulting Ltd
	Landscape Effects Assessment, prepared by Mike Moore Landscape Architect
	Infrastructure Servicing Report, prepared by Eliot Sinclair
	Urban Design Assessment, prepared by Common Ground Southern

DEXIN has an interest in the provisions and submission points that is greater than that of the general public.

DEXIN wishes to be heard in support of its submissions and further submissions. If others make a similar submission DEXIN would consider presenting a joint case with them at any hearing.

DEXIN cannot gain an advantage in trade competition through this submission.

DEXINs further submissions and the reasons for the same are set out within the following table, entitled 'Further Submissions to Proposed Waimakariri District Plan 2021'.

Signature:

James Nicol, for and on behalf of DEXIN Investment Limited

Date: 21 November 2022

2.0 FURTHER SUBMISSIONS TO PROPOSED WAIMAKARIRI DISTRICT PLAN

This further submission is in relation to the original submission of:	The particular parts of the original submission I/we support /oppose are:	My/our position on the original submission is:	The reasons for my/our support/ opposition to the original submission are:	Allow or disallow the original submission (in full or in part)	Give precise details of why you wish to allow/disallow (in full or in part) to indicate the decision you want Council to make
Woodend-Sefton Community Board C/- Kaye Rabe com.board@wmk.govt.nz Submitter Number 155	Submission Point 155.13 The submitter supports the Special Purpose Zone-Pegasus Resort conditional upon protection of existing residential lots and housing.	**Support**	DEXIN supports the submitter's position as proposed Activity Area 7 in the SPZ-PR achieves protection of existing residential lots and housing as requested by the submitter. Activity Area 7 specifically provides for the existing residential enclaves located within the SPZ. The intention is for these lots to maintain their semi-rural appearance and outlook over the golf course with no further intensification anticipated. DEXIN seeks to rename Activity Area 7 to 'Activity Area 7A – Low Density Residential' and introduce a new 'Activity Area 7B – Mākete Medium Density Residential'. The proposed new activity area will provide for a limited area of medium density residential on the periphery of the Mākete Village. This area will provide for multi-unit residential developments and a mix of duplex and terrace style residential dwellings with a high level of design quality. The proposed new activity area will also provide for the protection of existing residential lots and activities, noting that appropriate mitigation will be implemented to maintain the existing level of amenity for adjoining lots.	**Allow**	DEXIN seeks that the SPZ-PR provisions which relate to Activity Area 7 are retained as notified, with the exception of the minor change to the name of the Activity Area to 'Activity Area 7A – Low Density Residential'. The proposed SPZ-PR and expansion of the zone to cover the 1250 Main North Road site will not impact upon the existing residential lots and housing in the SPZ-PR.
Howard Stone C/- Wood and Partners Consultants Limited	Submission Point 191.1 and 191.2 The submitter seeks to rezone a 3.81ha	**Neutral**	DEXIN would not oppose the re-zoning of an additional area of vacant land as SPZ-PR - Activity Area 7, noting that DEXIN is proposing to rename this activity area to	**Neutral**	While DEXIN are not opposed to the submitter's property being included within the SPZ-PR as part of Activity Area 7, DEXIN seeks scope to be

Attention: Neil Cox Survey Manager neil.cox@woods.co.nz Submitter Number 191	portion of 1188 Main North Road / 20 Te Haunui Lane, Woodend from Rural Lifestyle Zone to Special Purpose Zone (Pegasus Resort) – Activity Area 7 (Residential), and amend the Outline Development Plan.		'Activity Area 7A' but with no changes to the anticipated activities or intensity of development as notified. DEXIN notes that including any additional sites into the SPZ-PR would require consequential amendments to the notified provisions and the Outline Development Plan.		included in any future discussions regarding changes to the provisions or the Outline Development Plan, to ensure there are no unintended consequences for the main SPZ-PR zone.
Canterbury Regional Council C/- Jo Mitten, Principal Planner Regional.Planning@ecan.govt.nz Submitter Number 316	Submission Point 316.186 The submitter seeks to amend policy SPZ-PR-P2, to introduce a hierarchy of preference as to whether effects are first remedied, or mitigated, or avoided in order to prevent water quality of Pegasus Lake from degrading further.	**Neutral**	DEXIN have a neutral position on the introduction of a hierarchy of preference into SPZ-PR-P2. However, DEXIN seeks to ensure that any amendments made to this policy are consistent with other provisions within the PDP. Any changes to this policy should not impose a more onerous or stringent test for the SPZ-PR zone with respect to managing water quality than provisions relating to water quality in other zones within the PDP.	**Neutral**	While DEXIN are not opposed in principle to changes to this policy, DEXIN seeks scope to be involved in any future discussions on potential wording changes to this policy. DEXIN considers changes to the policy should be consistent with other plan provisions that aim to manage the water quality of receiving waterbodies in other zones, and not introduce a hierarchy of preference which creates more onerous or strict requirements for the SPZ-PR zone compared to what is imposed in other parts of the PDP relating to water quality.
Templeton Group C/- Paul Gunn paul.gunn@templetongroup.co.nz Submitter Number 412	Submission Point 412.1 and 412.2 Submitter seeks amendments to provide clarification on definitions of 'hotel' and 'visitor accommodation'.	**Neutral**	DEXIN have a neutral position on the introduction of changes to the definitions of 'hotel' and 'visitor accommodation'. It is noted that Rule SPZ-PR-R10 provides for visitor accommodation (excluding hotels) within Activity Area 2, and DEXIN's submission seeks to widen SPZ-PR-R10 to enable visitor accommodation within proposed new Activity Area 8. Any minor amendments to the definitions are unlikely to impact upon the hotel and	**Neutral**	While DEXIN are neutral regarding minor amendments to the definitions of 'hotel' and 'visitor accommodation', DEXIN seeks scope to be included in any future discussions regarding changes to these definitions, to ensure there are no unintended consequences as they relate to the activities provided for within the SPZ-PR zone.

			visitor accommodation activities provided for in the SPZ-PR chapter, however, DEXIN seek to be included in any further discussions on amendments to these definitions to ensure there are no unintended consequences that change the way the SPZ-PR provisions are intended to work.		
Sports and Education Corporation C/- 4Sight Consulting Limited Melissa Pearson melissap@4sight.co.nz Submitter Number 416	Submission Points 416.1-416.15 The submitter supports the SPZ-PR, the Outline Development Plan (ODP) and the Pegasus Design Guidelines (PGD), as they provide certainty around how the land is to be developed in the future and how the existing golf course and residential properties are to be maintained throughout this process. The submitter seeks several amendments to the SPZ-PR provisions to provide for a new Country Club, widening the scope of landscape character assessment to include consideration of the evolving Pegasus resort landscape, and allowing for more flexibility in location of visitor accommodation	**Support**	DEXIN supports all aspects of the Sports and Education Corporation (S&E Corp) submission, relating to support of the SPZ-PR, ODP, and PDG. DEXIN supports the amendments to the SPZ-PR provisions sought by the submitter, and consequential amendments to related Transport and Definitions provisions. DEXIN agrees with S&E Corp's submission that the SPZ-PR is well positioned develop into a tourist destination as the existing golf course and facilities are a solid foundation around which new tourism related activities can establish. Pegasus Resort warrants a bespoke approach to enable the development of specific tourist activities that would not easily be covered by provisions in a standard business zone, and the interface with existing residential activity around the golf course requires bespoke rules to maintain amenity values. Further to this, DEXIN considers the extent of the SPZ-PR should be expanded to cover the site at 1250 Main North Road, with the incorporation of two new activity areas to provide for a Mākete Tourism Area and a Medium Density Residential Area. These adjacent tourism Mākete and residential areas will provide activities that are complementary to the resort	**Allow**	DEXIN seeks that Council approve the submission of Sports and Education Corporation in full, together with the additional changes to the SPZ-PR, ODP and PGD to enable the expansion of the SPZ-PR over DEXIN's site at 1250 Main North Road.

	and hotel development. The submission also seeks several amendments to related provisions within the Transport and Definitions sections.				
Dexin Investments Limited C/- 4Sight Consulting Limited Submitter Number 377	Submission Point 377.15 Amend SPZ(PR)-APP2 – Pegasus Design Guidelines to incorporate design guidelines for Activity Areas 7B and 8.	**Support**	As part of DEXIN's original submission, DEXIN sought scope to amend the Pegasus Design Guidelines. DEXIN seeks that the amendments to the text of these guidelines that have been provided as Appendix 4 to this submission are accepted, noting that DEXIN intends to provide renders for both Activity Areas 7B and 8 at the time that a collated final version of those guidelines is prepared for inclusion within the PDP.	**Allow**	
Dexin Investments Limited C/- 4Sight Consulting Limited Submitter Number 377	Submission Point 377.18 Seeks to ensure any amendments to district-wide provisions where they are relevant to development of the subject site are provided for.	**Support**	As part of DEXINs original submission, DEXIN sought scope to make consequential amendments to district wide provisions of the PDP, including Table SUB-1. DEXIN seeks that these amendments are accepted, noting that the current formatting of this table for the SPZ-PR row could be improved to assist with clearly identifying the minimum allotment areas that apply to each Activity Area.	**Allow**	

Appendix 1:

Amended SPZ-PR Provisions

Special Purpose Zone - Pegasus Resort

(Insertions underlined, deletions ~~struck out~~)

Introduction

The purpose of the Special Purpose Zone (Pegasus Resort) is to provide for a high-quality visitor resort centred around the existing 18-hole international championship golf course, and an adjacent tourism Mākete and residential area to provide activities that are complementary to the resort. The zone provides for hotel and visitor accommodation, existing large residential lots, medium density residential area, a spa and hot pool complex, golf education and country club facilities and a limited mix of commercial and associated ancillary activities, that support tourism activities associated with the Pegasus Resort and Mākete Village.

The zone is divided into seven distinct activity areas (references correspond to SPZ(PR)-APP1 and are referred to in the Activity Area Rules Tables as follows):

- Activity Area 1: Spa.
- Activity Area 2: Spa Village.
- Activity Area 3: Golf Square.
- Activity Area 4: Golf Village.
- Activity Area 5: Village Fringe.
- Activity Area 6: Golf Course.
- Activity Area 7A: Low Density Residential.
- Activity Area 7B: Mākete Medium Density Residential.
- Activity Area 8: Mākete Village.

The key differences between these activity areas are the types of development enabled (as guided by SPZ(PR)-APP1) and the extent to which activities such as commercial golf resort activity and visitor accommodation can occur. This recognises that some activity areas predominantly perform functions relating to the existing golf course, or existing residential areas, while others will enable other major tourism related activities, and to allow each of these areas to develop a distinct character guided by the Pegasus Resort Urban Design Guidelines (design guidelines) (Appendix 2).

Activity Area 1 – Spa provides for tourism activities, centred around the development of a Spa/Wellness and Hot Pool Complex, aimed at being a regionally significant tourism destination. This complex necessitates and provides for other activities that support the visitor experience, for example, a landmark hotel defining the main entrance to the golf course on the corner of Pegasus Boulevard and Mapleham Drive and an at-grade car park that services the Spa/Wellness and Hot Pool Complex and Hotel.

Activity Area 2 – Spa Village provides for a range of supporting commercial and visitor accommodation activities that will allow for visitors to cater for their stay. It will provide for visitor accommodation opportunities as an alternative to a hotel experience as well as commercial golf resort activities set out in accordance with the ODP to create a ‘village’ look and feel. Activity Area 2 will not provide for residential activities or other commercial activities typically associated with a neighbourhood or local centre – any commercial golf resort activity will need to demonstrate a link to supporting the key tourism activities provided for in the remainder of the zone.

Activity Area 3 – Golf Square contains the existing golf club facilities. The architectural design of these buildings is intended to set the tone for the built form of the rest of the zone, as set out in the Pegasus Design Guidelines. Development in this activity area is expected to be limited to a future country club and associated activities directly related to the operation of the golf course, as opposed to visitor accommodation or commercial golf resort activities found elsewhere in the zone.

Activity Area 4 – Golf Village is a development area for activities that support the primary golf course activity. Activities enabled by the ODP include an already consented Hotel and a Golf Education Facility, both of which are likely to be used by tourists visiting the zone for either golf instruction or playing the course for leisure or competition.

Activity Area 5 – Village Fringe is an active part of the existing golf course, however it has been identified as a separate activity area as it needs to provide for the relocation of two golf holes in order to enable the development of Activity Areas 1 and 2. It also serves as a buffer area between visitor accommodation and commercial golf resort activities found in the Spa Village and the residential sites located to the north.

Activity Area 6 – Golf Course contains the balance of the existing golf course not covered by the Village Fringe Activity Area and enables the ongoing operation and development of this course as a major sports facility.

Activity Area 7A – Low Density Residential contains eight enclaves of residential sites with an average lot size of approximately 2000m². These residential sites were created at the same time as the golf course development and have been designed to have aspects overlooking the golf course open space areas. The intention is for these lots to maintain their semi-rural appearance and outlook over the golf course with no further intensification anticipated. Activity Area 7A also include two additional residential sites that were created as balance lots and are now being developed for residential activity.

Activity Area 7B – Mākete Medium Density Residential provides for medium density residential activity on the periphery of the Mākete Village. This area provides for multi-unit residential developments and a mix of duplex and terrace style residential dwellings with a high level of design quality.

Activity Area 8 – Mākete Village provides for a range of tourism and supporting commercial activities that will provide a visitor destination to complement Pegasus Resort. The foundation of the village will be a market area to provide for local producers to directly retail produce. The area will be supplemented by visitor attractions that will showcase local artisan produce and provide educational and entertainment experiences to visitors to highlight sustainable production of food and materials.

The provisions in this chapter are consistent with the matters in Part 2 - District Wide Matters - Strategic Directions and give effect to matters in Part 2 - District Wide Matters - Urban Form and Development.

As well as the provisions in this chapter, district wide chapter provisions will also apply where relevant.

Objectives	
SPZ(PR)-O1	**Tourist destination**

	The establishment of regionally significant tourist destination based around an 18-hole international championship golf course. This provides for ~~with existing large residential sites, incorporating~~ hotel and visitor accommodation, spa/wellness and hot pool complex, golf education facility, low and medium density residential activities and mākete tourism activities with ~~and~~ limited small-scale commercial activity and ancillary activity.
SPZ(PR)-O2	**Design components** The development of spa/wellness and hot pool complex centred on a spa village, and tourism and residential activities centred on a Mākete Village within a framework of open space and recreation facilities, that reflect the local open space, recreational, landscape and visual amenity values and achieve urban design excellence consistent with the Pegasus design guidelines.
Policies	
SPZ(PR)-P1	**Outline development plan** Use and development of land shall: 1. be in accordance with the development requirements and fixed and flexible elements in SPZ(PR)-APP1, or otherwise achieve similar or better outcomes, except in relation to any interim use and development addressed by (3) below; 2. ensure that development: a. results in a vibrant, mixed-use area that achieves a complementary mix of hotel and visitor accommodation, spa/wellness and hot pool complex, golf education facility, mākete tourism, residential activities and small-scale commercial activities and ancillary activities; b. contributes to a strong sense of place, and a coherent, functional and safe neighbourhood; c. retains and supports the relationship to, and where possible enhances recreational features; d. is in accordance with the Pegasus design guidelines; e. achieves a high level of landscape, visual and amenity values; and f. encourages mixed use developments that are in accordance with SPZ(PR)-APP1 as a means of achieving coordinated, sustainable and efficient development outcomes; and 3. where the land is in interim use, the interim use shall not compromise the timely implementation of, or outcomes sought by, SPZ(PR)-APP1.
SPZ(PR)-P2	**Infrastructure services** Ensure the efficient and effective provision of infrastructure that avoid, remedy or mitigate any adverse effects on water quality and landscape, visual and amenity values and are consistent with the design approach taken for Pegasus township.
SPZ(PR)-P3	**Landscape and character** Provide for the landscape character values of the golf course, country club facilities and the background mountain range, particularly as viewed from public places, through master-planning, landscape design and massing of buildings.
SPZ(PR)-P4	**Provision of commercial activities** Ensure that the amenity values for visitors to the resort and the residents living in Activity Areas 7A and 7B is maintained or enhanced through:

	1. only providing for commercial activities that meet the definition of commercial golf resort activity or mākete tourism; 2. having individual and maximum caps on the floor area of commercial golf resort activity; and 3. managing the compatibility of activities within and between developments, especially for activities adjacent residential areas, through: a. controlling site layout, landscaping and design measures, including outside areas and storage; and b. controls on emissions including noise, light and glare.
SPZ(PR)-P5	**Urban design elements** Encourage high quality urban design by: 1. requiring all development to be in accordance with SPZ(PR)-APP1, which establishes an integrated and coordinated layout of open space; buffers and building setbacks; building height modulation and limits; roading purpose; built form; and streetscape design; 2. requiring all subdivision and development to be in accordance with the Pegasus design guidelines; 3. encouraging design responses that respond to the cultural values and visual character of the area; 4. encouraging development in Activity Areas 1-6 to be consistent with the existing distinctive architectural style of the golf resort buildings to ensure the character is retained; 5. encouraging development in Activity Area 8 to be consistent with the distinctive architectural style of New Zealand rural buildings; 6. efficient design of vehicle access ways and car parking, which is adequately screened from Main North Road/State Highway 1 (where applicable) and Pegasus Boulevard with appropriately designed landscaping; and 7. provision of secure, visible and convenient cycle parking.
SPZ(PR)-P6	**Open areas** Recognise the important contribution that the open areas provided by the Village Fringe Activity Area and the Golf Course Activity Area that adjoin the visitor accommodation and village areas make to the identity, character, amenity values, and outlook of the zone for residents and visitors.
SPZ(PR)-P7	**Golf activity** Enable golf course activities and ancillary facilities that: 1. support the golf course within the Golf course activity area; and 2. provide for development of the resort while ensuring that Pegasus Golf Course remains an 18 hole championship golf course.
SPZ(PR)-P8	**Village fringe** Provide for the relocation of two golf holes within the village fringe.
SPZ(PR)-P9	**Residential development**

	Provide for residential development located within Residential activity areas, while ensuring amenity values resulting from views over the golf course are maintained with no intensification of residential activity beyond what is provided for in the Activity Rules and Built Form Standards.

Activity Rules

SPZ(PR)-R1 Construction or alteration of or addition to any building or other structure	
Activity status: PER Where: 1. the activity complies with all built form standards (as applicable).	**Activity status when compliance not achieved: as set out in the relevant built form standards**
SPZ(PR)-R2 Residential activity	
Activity status: PER Where: 1. the activity occurs within Activity Area 7A excluding Lot 212 DP 403716 and Lot 230 DP 417391); or 2. the activity occurs within Activity Area 7B.	**Activity status when compliance is not achieved: DIS**
Activity Status: CON Where: 2. the activity occurs within Lot 212 DP 403716 and Lot 230 DP 417391; and 3. only one residential unit per site. **Matters of control are restricted to:** • SPZ-PR-MCD2 - Residential design controls • SPZ-PR-MCD8 - Flooding hazard	**Activity status when compliance is not achieved: DIS**
Activity status: NC Where: 4. the activity occurs within Activity Areas 1 to 6, and 8.	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R3 Residential unit	
Activity status: PER	**Activity status when compliance is not achieved: NC**

Where: 1. the activity occurs within Activity Area 7A including Lot 212 DP 403716 and Lot 230 DP 417391); or 2. the activity occurs within Activity Area 7B.	
SPZ(PR)-R4 Minor residential unit	
Activity status: PER Where: 1. the activity occurs within Activity Area 7A including Lot 212 DP 403716 and Lot 230 DP 417391); 2. the maximum GFA of the minor residential unit shall be 80m^2 (excluding any area required for a single car vehicle garage or carport); 3. there shall be only one minor residential unit per site; and 4. parking and access shall be from the same vehicle crossing as the principal residential unit on the site.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R5 Accessory building or structure	
Activity status: PER	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R6 Major sports facility	
Activity status: PER Where: 1. the activity occurs within Activity Areas 3, 5 and 6; 2. the outdoor lighting of the major sports facility must not operate within the hours of 10:00pm to 7:00am; 3. any tennis court surfaces are either dark green or grey in colour; 4. any tennis court fencing is chain mesh or similar, and grey or black in colour; 5. the GFA of any single building is less than 2,000m^2; and 6. landscape components are designed in accordance with Pegasus design guidelines SPZ(PR)-APP2.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R7 Recreation activities	
Activity status: PER Where: 1. the activity occurs within Activity Areas 3, 5 and 6.	**Activity status when compliance is not achieved: NC**

SPZ(PR)-R8 Helipad	
Activity status: PER Where: 1. the helipad is relocated within 10m of the location shown on SPZ(PR)-APP1; and 2. the helipad is not constructed over existing underground infrastructure.	**Activity status when compliance is not achieved: NC**
Advisory Note The location and design of any helipad must comply with Civil Aviation Rules, the Civil Aviation Act 1990 and other relevant legislation.	
SPZ(PR)-RX Public Amenities	
Activity status: PER Where: 1. the activity occurs within Activity Area 8.	**Activity status when compliance is not achieved: DIS**
SPZ(PR)-R9 New stormwater or recreation water bodies	
Activity status: CON Where: 1. the activity occurs within Activity Areas 5 and 6; 2. resizing, resitting and the provision of additional proposed stormwater ponds are consistent with SPZ(PR)-APP1 and engineering requirements; and 3. the stormwater pond is lined with a liner of sufficient impermeability so that seepage from the pond does not increase the likelihood of liquefaction. **Matters of control and discretion are restricted to:** • SPZ-PR-MCD1 - Stormwater or recreational water bodies **Notification** An application for a controlled activity under this rule is precluded from being publicly or limited notified.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R10 Visitor accommodation *This rule does not apply to any hotel provided for under SPZ(PR)-R11.*	
Activity status: RDIS Where:	**Activity status when compliance is not achieved: NC**

1. the activity occurs within Activity Area 2; 2. the maximum number of visitor accommodation units within Activity Areas 2 shall be 320; and 3. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2; **Matters of control and discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD3 - Transportation • SPZ-PR-MCD4 - Amenity values • SPZ-PR-MCD7 - Visitor accommodation • SPZ-PR-MCD8 - Flooding hazard **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	
SPZ(PR)-R11 Hotel	
Activity status: RDIS Where: 1. the activity occurs within Activity Areas 1 and 4; 2. the maximum number of hotel accommodation units within Activity Areas 1 and 4 shall be 180; and 3. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD3 - Transportation • SPZ-PR-MCD4 - Amenity values • SPZ-PR-MCD8 - Flooding hazard **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R12 Spa/wellness and hot pool complex	
Activity status: RDIS	**Activity status when compliance is not achieved: NC**

Where: 1. the activity occurs within Activity Area 1; and 2. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD3 - Transportation • SPZ-PR-MCD4 - Amenity values • SPZ-PR-MCD8 - Flooding hazard **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	
SPZ(PR)-R13 Commercial golf resort activity	
Activity status: RDIS Where: 1. the activity occurs within Activity Areas 1 to 4; 2. there is a maximum of 2,500m² GFA within Activity Areas 1, 2, 3 and 4 combined, as shown on SPZ(PR)-APP1; 3. commercial golf resort activity in Activity Areas 1 to 4 shall be a maximum of 200m² GFA per tenancy: and 4. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD3 - Transportation • SPZ-PR-MCD4 - Amenity values • SPZ-PR-MCD8 - Flooding hazard	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R14 Golf country club	
Activity status: RDIS Where: 1. the activity occurs within Activity Area 3; and	**Activity status when compliance is not achieved: NC**

2. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** • SPZ-PR-MCD5 - Golf facility considerations **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	
SPZ(PR)-R15 Golf education facility	
Activity status: RDIS Where: 1. the activity occurs within Activity Area 4; and 2. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** • SPZ-PR-MCD5 - Golf facility considerations **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-RX Mākete tourism activity	
Activity Status: RDIS Where: 1. The activity occurs within Activity Area 8; and 2. The design of development is in accordance with the Pegasus design guidelines SPZ(PR)-APPX. **Matters of control and discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD3 - Transportation • SPZ-PR-MCD4 - Amenity values • SPZ-PR-MCD8 - Flooding hazard	**Activity status when compliance is not achieved: NC**
SPZ(PR)-RX – Multi Unit Residential Development	
Activity Status: RDIS *Where:*	**Activity status when compliance is not achieved: DIS**

1. The activity occurs within Activity Area 7B; and
2. The activity results in the construction of four or more residential units per site or where the activity cannot be undertaken as a permitted activity under Rule **SPZ(PR)-RX**; and
3. The activity complies with the following built form standards:
a. SPZ(PR)-BFS3 Building Height;
b. SPZ(PR)-BFS4 Building Coverage;
c. SPZ(PR)-BFS6 Building and Structure Setbacks;
d. SPZ(PR)-BFSX Outdoor Living Space;
e. SPZ(PR)-BFSX Landscape Permeable Surfaces;
f. SPZ(PR)-BFSX Street Interface; and
g. SPZ(PR)-BFSX Height in Relation to Boundary.
; and
4. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2.
Matters of control and discretion are restricted to:
5. SPZ-PR-MCD1 –Design Controls
6. SPZ-PR-MCD3 – Transportation
7. SPZ-PR-MCD4 – Amenity values
8. SPZ-PR-MCD8 – Flooding hazard	

SPZ(PR)-R16 Primary production	
This rule does not apply to plantation forestry and woodlots provided for under SPZ(PR)-R20; or mining and quarrying activities provided for under SPZ(PR)-R23.	
Activity status: DIS	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R17 Any other activity not provided for in this zone as a permitted, controlled, restricted discretionary, discretionary, non-complying, or prohibited activity, except where expressly specified by a district wide provision	
Activity status: DIS	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R18 Large format retail	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R19 Supermarket	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R20 Plantation forestry and woodlots	

Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R21 Intensive indoor primary production	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R22 Commercial services	
This rule does not apply to any hairdressing, beauty salons, barbers, and massage therapists except where provided for under SPZ(PR)-R11 to SPZ(PR)-R14.	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R23 Mining and quarrying activities	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R24 Office	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R25 Funeral related services and facility	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R26 Waste management facility	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R27 Trade supplier	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R28 Service station	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R29 Motorised sports facility	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R30 Industrial activity	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R31 Boarding kennels	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R32 Cattery	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R33 Composting facility	
Activity status: NC	**Activity status when compliance is not achieved: N/A**

Built Form Standards

SPZ(PR)-BFS1 Visitor accommodation unit standards	
1. The minimum NFA (excluding garages, balconies, and any communal lobbies stairwells and plant rooms) per visitor accommodation unit shall be: a. Studio 25m^2; b. One bedroom 35m^2; c. Two bedroom 50m^2; and d. Three or more bedrooms 80m^2; 2. Each visitor accommodation unit shall be provided with a private outdoor living space with a minimum area of 6m^2 and a minimum dimension of 1.5m; 3. Where a garage is not provided with the unit, each visitor accommodation unit shall have an internal storage space that is a minimum of 4m^3 and a minimum dimension of 1m; and 4. External lighting shall be limited to down lighting only, at a maximum of 1.5m above the finished floor level of the building, with the light source shielded from horizontal view.	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:** • SPZ-PR-MCD7 - Visitor accommodation units **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR)-BFS2 Visitor accommodation waste management	
1. All visitor accommodation shall provide: a. a waste management area for the storage of rubbish and recycling of 5m^2 with a minimum dimension of 1.5m; and b. waste management areas shall be screened or located behind buildings when viewed from any road or public open space.	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:** • SPZ-PR-MCD7 - Visitor accommodation units **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR)-BFS3 Building height	
1. The maximum height of buildings above ground level shall be: a. Activity Area 1 - 16m at 3 storeys; b. Activity Area 2 - 12m at 3 storeys; c. Activity Area 3 - 9m at 2 storeys; d. Activity Area 4 - 14m at 3 storeys; e. Activity Area 5 - 8m at 2 storeys; f. Activity Area 6 - 6m at 1 story; ~~and~~ g. Activity Area 7A - 10m at 2 storeys (with the exception of Lot 212 DP 403716 and Lot 230 DP417391, which shall comprise a single storey residential unit no higher than 7m);~~.~~	**Activity status when compliance is not achieved: NC**

h. Activity Area 7B – 12m at 3 storeys; and i. Activity Area 8 – 9m at 2 storeys. 2. The minimum height of buildings shall be: a. Activity Area 2 - 6m at 1 storey.	
Calculation method for SPZ(PR)-BFS5 1. For the purpose of calculating the height, the following shall be excluded: a. items listed in the definition of height calculation; and b. in Activity Areas 1 and 4 only, a pavilion building to a maximum of 30% of the building footprint to enable the activation of a living roof, provided that the maximum height as measured from the finished floor level of the living roof is not exceeded by more than 4m.	
SPZ(PR)-BFS4 Building coverage	
1. The building coverage shall not exceed the maximum percentage of net site area: a. Activity Area 1 - 35%; b. Activity Area 2 - 35%; c. Activity Area 3 - 20%; d. Activity Area 4 - 35%; e. Activity Area 5 - 3%; f. Activity Area 6 - 3%; g. Activity Area 7A - 20%; h. Activity Area 7B – 50%; and i. Activity Area 8 – 20%	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD4 - Amenity values
SPZ(PR)-BFS5 Living roof	
1. In Activity Areas 1 and 4, buildings with a footprint over 2,000m^2 shall include a living roof.	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD4 - Amenity values
SPZ(PR)-BFS6 Building and structure setbacks	
1. Setbacks to be provided as per SPZ(PR)-APP1 as follows: a. Pegasus Boulevard (Activity Areas 1 and 4) - 20m; b. Pegasus Boulevard (Activity Area 3) - 5m;	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:**

2. Setbacks to be provided in Activity Area 7A (excluding Lot 212 DP 403716 and Lot 230 DP 417391) as follows: a. Any building or structure shall be no less than 10m from any internal boundary or road boundary; and 3. Setbacks to be provided in Activity Area 7A on Lot 230 DP 417391 as follows: a. Any building or structure shall be no less than 3m from the road boundary with Taerutu Lane; and b. Any building or structure shall be no less than 10m from any internal boundary or other road boundary; 4. Setbacks to be provided on Lot 212 DP 403716 as follows: a. Any building or structure shall be no less than 3m from the road boundary with Atkinsons Lane; and b. Any building or structure shall be no less than 10m from any internal boundary or other road boundary. 5. Setbacks to be provided in Activity Area 7B as follows: a. Any building or structures adjoining a State Highway – 25m; b. Any building or structure shall be set back a minimum of 1.5m from any road boundary except for: i. any fence; ii. poles and masts up to 6.5m in height above ground level; iii. structures other than a fence, less than $10m^2$ and less than 3m in height above ground level; iv. any caravan; v. the replacement, maintenance and minor upgrading of any infrastructure; and vi. any structure or residential unit adjoining an accessway that does not have doors or windows that open into that accessway. c. Any building or structure shall be set back a minimum of 1m from any internal boundary, except that buildings on adjoining sites which share a common wall, the internal setback shall not apply along that part of the internal boundary covered by such a wall. 6. Setbacks to be provided in Activity Area 8 as follows: a. Any building or structures adjoining a State Highway - 30m.	• SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD4 - Amenity values • SPZ-PR-MCD6 - Boundary setback **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
Exemption • The setback provisions do not apply to the temporary storage of non-motorised caravans.	
SPZ(PR)-BFS7 Landscaping	
1. The minimum amount of landscaped area in each activity area shall be: a. Activity Area 1 - 40%;	**Activity status when compliance is not achieved: NC**

b. Activity Area 2 - 30%; c. Activity Area 3 - 30%; d. Activity Area 4 - 40%; e. Activity Area 5 - 90%; ~~and~~ f. Activity Area 6 - 90%; and~~.~~ g. Activity Area 8 – 50%.	
SPZ(PR)-BFS8 Outdoor storage	
1. All goods, materials or equipment shall be stored inside a building, except for vehicles associated with the activity parked on the site overnight.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-BFS9 Commercial waste management	
1. All commercial activities shall provide: a. a waste management area for the storage of rubbish and recycling of no less than $5m^2$ with a minimum dimension of 1.5m; or b. a common waste management area for the storage of rubbish and recycling within Activity Area 8 of no less than $5m^2$ per $100m^2$ of commercial activity GFA within the activity area; and c. waste management areas shall be screened or located behind buildings when viewed from any road or public space.	**Activity status when compliance is not achieved: DIS**
SPZ(PR)-BFS10 Building and structures colours and reflectivity	
1. Any buildings and structures within the Activity Areas 1 to 6, and 7B and 8 shall meet the following requirements: a. exterior wall cladding including gable ends, dormers and trim of all structures shall be finished in their natural colours or coloured earthly mid tones and achieve reflectivity between 5% and 22%; and b. roofs of all structures including trim shall be finished in their natural colours or coloured dark tones and achieve reflectivity between 5% and 12%.	**Activity status when compliance is not achieved: DIS**
SPZ(PR)-BFS11 Residential buildings on Lot 212 DP 403716 and Lot 230 DP 417391	
1. All buildings must be constructed on-site from new or high quality recycled materials; 2. Exterior cladding for all buildings (except for the cladding of soffits or gable ends) shall be of the following materials: a. brick; or b. natural stone; or c. river rock; or	**Activity status when compliance is not achieved: DIS**

d. texture plaster over brick, or polystyrene or other suitable sub base for plaster; or e. stained or painted timber weather-board, wooden shingles, timber board batten; or f. surface coated concrete block; or g. solid plaster or glazing. 3. All roofing material on any building shall be either: a. tiles (including clay, ceramic, concrete, decramastic, pre-coated or pressed steel); or b. steel (comprising pre-painted, long run pressed or rolled steel); or c. shingles; or d. slate; or e. membrane roofing. 4. No reflective or visually obtrusive roof, wall or joinery materials, colours or mirror glass may be used for any building; 5. No exterior cladding, no roofing material, no guttering or down pipe material comprising unpainted and/or exposed zinc coated products may be used on any building; 6. No buildings shall be erected using concrete or treated wooden piles without providing a solid and durable skirting board or other enclosure around the exterior of the building(s) from ground height to the underside of the wall cladding; 7. No accessory building shall be erected except in conjunction with or following construction of the residential unit and all such buildings shall be constructed with permanent materials comprising timber, stone or other permanent materials in character with the residential unit; 8. Air conditioning units must not be set into or protrude from the building(s). Any external air conditioning units must be properly screened; 9. No building shall be erected, altered, placed or permitted to remain other than buildings designed for residential activity and any accessory building; 10. Clotheslines and letterboxes must be unobtrusive and of good quality in terms of design and location. The positioning of any letterbox shall be adjacent to but not on the road reserve; and 11. Only post and rail fences may be erected on side boundaries. No fencing is permitted on road frontage or any internal boundary.	
SPZ(PR)-BFS12 Site layout Pegasus Resort ODP	
1. Development shall be in accordance with SPZ(PR)-APP1. 2. For the purpose of this built form standard the following amendments do not constitute a breach of SPZ(PR)-APP1: a. development shall facilitate a road connection at fixed road access point shown on SPZ(PR)-APP1 to enable vehicular access to roads which connect with Pegasus	**Activity status when compliance not achieved: DIS**

Boulevard and Mapleham Drive, provided that a variance of up to 20m from the location of the connection shown on SPZ(PR)-APP1 shall be acceptable; b. the provisions for breaks in the landscape buffer identified along the Pegasus Boulevard to accommodate entry and egress into and out of the site or where landscaping is required to be reduced in order to achieve the safe and efficient operation of existing road networks; and c. resizing, resitting and the provision of additional proposed stormwater ponds.	
SPZ(PR) – BFSX Number of residential units per site	
1. In Activity Area 7B there shall be no more than 3 residential units per site	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR) – BFSX Outdoor living space	
1. In Activity Area 7B a residential unit at ground floor level must have an outdoor living space that is at least 20 square metres and that comprises a ground floor, balcony, patio, or roof terrace space that, - a. where located at ground level, has no dimension less than 3 metres; and b. where provided in the form of a balcony, patio, or roof terrace, is at least 8 square metres and has a minimum dimension of 1.8 metres; and c. is accessible from the residential unit; and d. may be- 1. grouped cumulatively by area in 1 communally accessible location; or 2. located directly adjacent to the unit; and e. is free of buildings, parking spaces, and servicing and manoeuvring areas. 2. In Acti8vity Area 7B a residential unit located above ground floor level must have an outdoor living space in the form of a balcony, patio, or roof terrace that- f. is at least 8 square metres and has a minimum dimension of 1.8 metres; and g. is accessible from the residential unit; and h. may be- 1. grouped cumulatively by area in 1 communally accessible location, in which case it may be located at ground level; or	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.

2. located directly adjacent to the unit.	
SPZ(PR) – BFSX Landscape permeable surfaces	
1. Landscape permeable surfaces are to be provided in Activity Area 7B as follows: a. The minimum landscaped permeable surface of any site shall be 20% of the net site area. b. For the purpose of calculating the area of landscaped permeable surface the following areas can be included: i. any paths 1.1m wide or less; or ii. open slat decks under 1m in height above ground level with a permeable surface underneath.	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR) – BFSX Street interface	
1. In Activity Area 7B, where the site has direct road frontage, any residential unit or minor residential unit facing the road shall address the street as follows: a. Shall have a door that is directly visible and accessible from the street. b. Garage doors that face the street shall have a combined maximum width of 6.5m.	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR) – BFSX Height in relation to boundary	
1. Buildings must not project beyond a 60° recession plane measured from a point 4 metres vertically above ground level along all boundaries, as shown Figure SPZ(PR)-X. Where the boundary forms part of a legal right of way, entrance strip, access site, or pedestrian access way, the height in relation to boundary applies from the farthest boundary of that legal right of way, entrance strip, access site, or pedestrian access way. This standard does not apply to: a. a boundary with a road; b. existing or proposed internal boundaries within a site; and c. site boundaries where there is an existing common wall between 2 buildings on adjacent sites or where a common wall is proposed. 2. Where the site is within the Urban Flood Assessment Overlay, the height of the Finished Floor Level specified in a Flood Assessment Certificate can be used as the origin of the recession plane instead of ground level, but only up to an additional 1m above original ground level.	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR)-BFSX Outlook space (per unit)	
1. In Activity Area 7B an outlook space must be provided for each residential unit as specified in this clause. 2. An outlook space must be provided from habitable room windows as shown in Figure MRZ-5. 3. The minimum dimensions for a required outlook space are as follows: a. a principal living room must have an outlook space with a minimum dimension of 4 metres in depth and 4 metres in width; and	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD4 - Amenity values

b. all other habitable rooms must have an outlook space with a minimum dimension of 1 metre in depth and 1 metre in width. 4. The width of the outlook space is measured from the centre point of the largest window on the building face to which it applies. 5. Outlook spaces may be over driveways and footpaths within the site or over a public street or other public open space. 6. Outlook spaces may overlap where they are on the same wall plane in the case of a multi-storey building. 7. Outlook spaces may be under or over a balcony. 8. Outlook spaces required from different rooms within the same building may overlap. 9. Outlook spaces must - a. be clear and unobstructed by buildings; and b. not extend over an outlook space or outdoor living space required by another dwelling.	**Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR)-BFSX Windows to Street	
1. In Activity Area 7B any residential unit facing the street must have a minimum of 20% of the street-facing facade in glazing. This can be in the form of windows or doors.	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR)-BFSX Landscaped Area	
2. In Activity Area 7B a residential unit at ground floor level must have a landscaped area of a minimum of 20% of a developed site with grass or plants and can include the canopy of trees regardless of the ground treatment below them. 3. The landscaped area may be located on any part of the development site and does not need to be associated with each residential unit.	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** • SPZ-PR-MCD2 - Design considerations • SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.

Matters of Control or Discretion

SPZ-PR-MCD1	**Stormwater or recreational water bodies** 1. Landscaping, planting and screening; 2. Accessibility for maintenance purposes;

	3. Design capacity; and 4. Integration into the stormwater network.
SPZ-PR-MCD2	**Pegasus Resort Design considerations** 1. The layout of non-fixed elements of the development in accordance with SPZ(PR)-APP1. 2. Design of development in accordance with the Pegasus design guidelines ¸ including: a. the bulk, scale, location and external appearance of buildings; b. the creation of active frontages adjacent to roads and public spaces; c. setbacks from roads; d. landscaping; e. streetscaping design; f. application of CPTED principles; g. focus on sustainable design to reduce carbon footprint; h. provision for internal walkways, paths, and cycleways; and i. appropriate legal mechanism to ensure implementation of design responses as relevant; 3. Lighting design that meets the character and amenity values for the activity area. 4. Adequate provision of storage and loading/servicing areas and access to all service areas that require ongoing maintenance. 5. Enhancement of ecological and natural values.
SPZ-PR-MCD3	**Transportation** 1. Safe, resilient, efficient functioning and sustainable for all transport modes. 2. Adverse effects on the character and amenity values of the surrounding area in terms of noise, vibration, dust, nuisance, glare or fumes. 3. Provision of safe vehicle access and adequate on-site car parking and circulation and on-site manoeuvring. 4. Road and intersection design in accordance with SPZ(PR)-APP1. 5. Compliance with the relevant standards contained within the Transport Chapter.
SPZ-PR-MCD4	**Amenity values** 1. Effects of the development on: a. character and quality of the environment, including natural character, water bodies, ecological habitat and indigenous biodiversity, and sites of significance to Māori; b. existing landscape character values and amenity values of the zone in which it occurs, and the zone of the receiving environment; and c. the surrounding environment such as visual effects, loss of daylight, noise, dust, odour, signs, light spill and glare, including cumulative effects. 2. Effects of hours of operation on the amenity values of any surrounding residential properties, including noise, glare, nuisance, disturbance, loss of security and privacy. 3. Incorporation of effective mitigation such as landscaping or screening.

SPZ-PR-MCD5	**Golf facility considerations** 1. Maintaining the spatial extent of the 18 hole champion golf course. 2. Interface with public roads and open spaces. 3. Traffic generation, access and parking. 4. Noise duration, timing, noise level and characteristics, and potential adverse effects in the receiving environment.
SPZ-PR-MCD6	**Boundary setback** 1. The extent to which any reduced road boundary setback will detract from the pleasantness, coherence, openness and attractiveness of the site as viewed from the street and adjoining sites, including consideration of: a. compatibility with the appearance, layout and scale of other buildings and sites in the surrounding area; and b. the classification and formation of the road, and the volume of traffic using it within the vicinity of the site. 2. The extent to which the scale and height of the building is compatible with the layout, scale and appearance of other buildings on the site or on adjoining sites. 3. The extent to which the reduced setback will result in a more efficient, practical and better use of the balance of the site. 4. The extent to which any reduced setback from a transport corridor will enable buildings, balconies or decks to be constructed or maintained without requiring access above, on, or over the transport corridor.
SPZ-PR-MCD7	**Visitor accommodation units** 1. In relation to minimum unit size, where: a. the floor space available and the internal layout represents a viable visitor accommodation unit that would support the amenity values of current and future guests and the surrounding activity area; b. other onsite factors compensate for a reduction in unit sizes e.g. communal facilities; and c. the balance of unit mix and unit sizes within the overall development is such that a minor reduction in the area of a small percentage of the overall units may be warranted. 2. In relation to storage space, where: a. the extent to which the reduction in storage space will adversely affect the functional use of the visitor accommodation unit and the amenity values of neighbouring sites, including public spaces; and b. the extent to which adequate space is provided on the site for the storage of bicycles, waste and recycling facilities and clothes drying facilities. 3. In relation to outdoor living space, where: a. the extent to which the reduction in outdoor living space will adversely affect the ability of the site to provide for amenity values and meet outdoor living needs of likely future guests.
SPZ-PR-MCD8	**Flooding hazard** 1. The extent to which natural hazards have been addressed, including any actual or potential impacts on the use of the site for its intended purpose, including: a. the location and type of infrastructure; and b. any restriction on floor levels as a result of flood hazard risk.

	2. The extent to which overland flow paths are maintained. 3. Any effects from fill on stormwater management on the site and adjoining properties and the appropriateness of the fill material. 4. Increased ponding or loss of overland flow paths.

Appendices

SPZ(PR)-APP1 - ODP

Cadastral Data from LINZs DCDB. Crown Copyright Reserved.

SPZ(PR)-APP2 - Pegasus Design Guidelines

Pegasus Design Guidelines

Appendix 2:

Consequential Amendments to District Wide Provisions

(Insertions <u>underlined</u>, deletions ~~struck out~~)

Part 1 – Te Whakamāramatanga – Interpretation

Definitions

Definitions	
<u>MĀKETE TOURISM</u>	<u>Means activities that support the tourism activities in the zone, including:</u> a. <u>wellness activities;</u> b. <u>food and beverage retail;</u> c. <u>markets;</u> d. <u>artisan workshops;</u> e. <u>gift/souvenir shops;</u> f. <u>manufacturing of food or beverage goods;</u> g. <u>cultural facilities;</u> h. <u>entertainment;</u> i. <u>horticulture.</u>

Part 2 District-wide matters

SUB – Wāwāhia whenua – Subdivision

SUB-S1 Allotment size and dimensions	
1. All allotments created shall comply with Table SUB-1.	**Activity status when compliance not achieved:** **In the Medium Density Residential Zone, any Industrial Zone and Special Purpose Zone (Kaiapoi Regeneration): DIS** **In any other zone: NC**

Table SUB-1: Minimum allotment sizes and dimensions

Special Purpose Zone (Pegasus Resort)			
• Areas 1, 2, ~~and~~ 4, <u>and 8</u> • <u>Area 7B</u> • All other areas	No minimum <u>n/a - for the purpose of the construction and use of residential units</u> 4ha	n/a <u>n/a</u> n/a	n/a <u>n/a</u> n/a

Appendix 3:

Amended Outline Development Plan

Indicative Pedestrian Link

Indicative Roads

Activity Area 7B: Mākete Medium Density Residential

Activity Area 8: Mākete Village

Existing Stream

Landscaped Setback

10 25 50 [m]

MAIN NORTH ROAD

Main North Road

Bob Robertson Drive

PEGASUS BOULEVARD

Pegasus Boulevard

68

10

8

6

4

Indicative Pedestrian Link

Indicative Roads

Indicative Shared Space

Private Roads

Activity Area 2: Spa Village

Activity Area 1: Spa

Activity Area 3: Golf Square

Activity Area 5: Village Fringe

Activity Area 6: Golf Course

Activity Area 7: Residential Lots

Existing Ponds

Landscaped Setback

Proposed Ponds

Relocated Helipad

Existing Stream

Activity Area 7B: Mākete Medium Density Residential

Activity Area 8: Mākete Village

N

Meters

0 75 150 225 300 375 450

Scale 1:11,000 (A4)

Pegasus Resort ODP

Appendix 4:

Amended Pegasus Design Guidelines

SPZ(PR) – APP2 – Pegasus Design Guidelines

(Insertions underlined, deletions ~~struck out~~)

1.1 Context

...

1. Spa Activity Area – Hotel, Wellbeing Spa and Hot Pools
2. Spa Village Activity Area – Visitor Accommodation and mixed-use
3. Golf Square Activity Area – Country Club and mixed-use retail and hospitality
4. Golf Village Activity Area – Tourism, Education, and Hotel
5. Village Fringe – Golf Course, Holes 1 and 2
6. Golf Course – Holes 3-18
7. B. Mākete Medium Density Residential
8. Mākete Village

...

1.2 Vision and Objectives

Pegasus Resort is expected to be a high quality tourist destination which provides a parklands-style par 72 – 18 hole championship Golf Course; Spa/Wellness and Hot Pool facility alongside visitor accommodation, and a complementary Mākete Village visitor destination. These Urban Design Guidelines are intended to assist Pegasus Resort to develop a strong sense of identity through the use of design criteria, building styles, forms, materiality and requirement to deliver high quality private public

...

1.3 Activity Area Objectives

Pegasus Resort is made up of ~~six~~ eight activity areas which are described below with specific objectives detailed below. The key differences between these activity areas are the types of development enabled in each area (as guided by the Outline Development Plan (ODP)) and the extent to which key activities such as Commercial Golf Resort Activities and Visitor Accommodation can occur. This recognises that some activity areas predominantly perform functions relating to the existing golf course, while others will enable other major tourism related activities, and to allow each of these areas to develop a distinct character guided by these guidelines

…

Activity Area 7B - Mākete Medium Density Residential provides for medium density residential activity on the periphery of the Mākete Village. This area provides for multi-unit residential developments and a mix of duplex and terrace style residential dwellings with a high level of design quality in a landscape setting.

The Specific Objectives for the Mākete Medium Density Residential Activity Area are:

- To provide a variety of high-quality duplex and terraced house typologies, with a connection to the surrounding facilities including the Mākete, Village, hot pools Hotel, and Golf Course.
- To require all built forms to be appropriately modulated to ensure visual variation in the façades of buildings.
- To ensure that other parts of the Village Resort are well and safely connected to the Medium Density Residential Area with pedestrian and cycleways.

Activity Area 8 – Mākete Village provides for a range of tourism and supporting commercial activities that will provide a visitor destination to complement Pegasus Resort. The foundation of the village will be a market area to provide for local producers to directly retail produce. The area will be supplemented by small scale commercial food and beverage operations and visitor attractions that will showcase local fine arts, artisan crafts, cultural activities, and historical interpretation. Educational and entertainment experiences for visitors will focus on sustainability, food production, crafts, local history, and cultural heritage.

There is a need for car parking to support the activities of this zone. The ODP shows the carparking placed parallel to the State Highway with a landscape buffer between the carparking and the road. This is intended to have low mounds with mostly low-level native planting and some larger trees. The interior of the site including the Makete is intended to have pedestrian access only.

The Specific Objectives for the Makete Village Activity Area are:

- To ensure the development creates an intimate, human scaled and cohesive environment with buildings providing activation to the public realm.
- To ensure the buildings are arranged around a landscaped 'Village Green' which provides open space for recreation and can cater for a variety of outdoor events.
- To encourage verandas and awnings where appropriate to enhance the streetscape and pedestrian environment, and to provide a variety of outdoor seating and recreation spaces to provide shelter in different weather conditions.
- To require all built forms to be appropriately modulated to ensure visual variation in the façades of buildings.
- To encourage varied design within a palette of materials and finishes.
- To provide a range of entertainment and educational activities relating to themes of agriculture, horticulture, food production, winemaking, museum/historical interpretation, sustainability, arts, crafts and culture.
- To provide a space for local producers and makers to sell and promote their products.
- To encourage landscaping that reflects the surrounding natural landscape and is appropriate for the area, enhancing the amenity and biodiversity of the area, and to protect the ecology and amenity of the existing creek.
- To minimise the impact of carparking by requiring extensive landscaping within and around the carpark and to create a safe pedestrian environment in the interior of the site by limiting vehicular traffic to the perimeter.
- To ensure that other parts of the Village Resort are well and safely connected to the Makete development with pedestrian and cycleways.

- To retain historical and cultural artifacts and provide interpretative displays relating to the history of the site.
- To develop the design that has regard to Ngai Tuahuriri development values and cultural narrative.

2.1 Design Considerations

The built form design considerations are intended to encourage a diversity of built form that will complement the overarching objectives of Pegasus Resort. Each of the Activity Areas have a different set of guidelines which aim to weave together to ensure Pegasus Resort:

- Maintains an appreciated amenity surrounding an international golf course;
- Complements the existing landscape and locale;
- Has diversity of built form and outdoor spaces;
- Has different buildings which do not overlook or overshadow one another, that respect the overall pattern of fronts, backs and sides;
- Connects with and enhances the architecture of the existing golf course club rooms and buildings;
- Provides variation of façades and appropriate visual scale through use of recesses and materiality adjoining the golf course and public realm (such as Pegasus Boulevard); ~~and~~
- Defines each of the activity areas and their associated uses~~.~~; and
- References the local historical and cultural context.

…

2.2 Form + Massing Controls

2.2.X Mākete Medium Density Residential Activity Area

The Medium Density Residential Activity Area provides for 2 and 3 storey duplexes and terraced house typologies, set in a landscaped environment and with links to the Makete and Golf Course.

2.2.X.1 Coverage Controls: Medium Density Residential Activity Area

Maximum Site Coverage – 50%

Minimum Landscape Coverage – 20%

Minimum Landscaped Permeable Surface Coverage – 20%

2.2.X.2 Maximum Height: Mākete Medium Density Residential Activity Area

Maximum Building Height – 12m, 3 storeys

2.2.X.3 Building Setback/Landscaped Buffer: Mākete Medium Density Residential Activity Area

A minimum building or structures setback of 25m shall be maintained to State Highway 1. Other zone or activity area boundaries where buildings are proposed within 20m of the boundary must, except for where vehicle entrances are cut through, be provided a minimum strip 3.5m wide to be completely

planted in species identified in Section 3 with a minimum height of 0.5m. Planting in this area should include at least 1 tree capable of reaching 10m at maturity to be planted every 20m^2.
Alongside Taranaki Stream, except for where roads or pathways cross, setback areas are to be appropriately planted using locally appropriate indigenous species from within Section 3 to enhance the natural waterway values and should be free of any new structures (other than pathways and decks less than 1m in height).

2.2.X.4 Modulation of Buildings: Medium Density Residential Activity Area

Consideration shall be given to breaking up the mass of building forms in excess of 15m in length. This can be done through the use of recesses, offsets, gable end projections, chimneys, balconies, and the use of façade variation and materials. Blank facades are to be avoided.

2.2.X.5 Roofs: Mākete Medium Density Residential Activity Area

The aim of the following controls is to ensure a unified roofscape that does not detract from the surrounding landscape and the established built form.

- All buildings should follow a simple roof form that follow the architectural design of cottages, villas, or pavilions. For a pavilion gabled roof, a minimum pitch of 25° and maximum of 45°.
- It is recommended that simple roof forms are used.
- Mono-pitched roofs, exceeding 20% of the building footprint can be incorporated with a minimum pitch of 5° and maximum of 10° where the combination of roof forms is minimal.
- Lean-to structures are permitted and shall have a minimum roof pitch of 15° and a maximum pitch of 35°.
- Flat roofs that connect and link pitched roofed pavilions are acceptable but will generally not exceed 30% of the total roof area of the activity area. These roofs are encouraged to be accessible and/or have a living roof.
- No hip roofs are permitted.
- Eaves or overhangs are encouraged.
- Roofs shall have a Light Reflectivity Value (LRV) of between 5-22% in a neutral colour.
- Steel tray cladding/roof, Profiled Steel, Colorsteel or tiles are permitted limited to one form, with colours similar to Resene matte finish: Element; Grey Friars; Windswept; Squall; Ironsand; Lignite; High Tide; Charcoal or Karaka.
- A second roof finish to a secondary form such as a garage or lean-to may be permitted where it can be satisfied that the overall design will benefit from this feature.
- Down pipes and gutters will be in a colour matching the roof.
- Dormers are permitted and must be treated with same material as main roof.

2.2.X.6 Wall Cladding: Mākete Medium Density Residential Activity Area

The wall cladding controls aim to ensure that new buildings are complementary and blend into the immediate Pegasus Golf Club part of the Resort and wider landscape. Cladding materials shall be authentic, of quality with natural or recessive colours with a limited number of variations in finish.

The following cladding materials and colours are permitted;

- Concrete with a low light reflection coefficient (i.e., textured such as board formed or oxide additives) for not more than 30% of the total exterior façade wall cladding;
- Brick either natural or painted in contemporary dark paint colours to match an LRV of 5-22%;
- Painted timber in contemporary dark paint colours to match an LRV of 5-22%;
- Natural timber cladding, vertical or horizontal, left to weather, oiled or stained to match an LRV of 5-22%;
- Board and batten stained to match an LRV of 5-22%;
- Stone to match the existing golf club façade;
- Joinery, guttering, and downpipes should match roof colours;

Corrugated Iron or Hardie™ Flatboard are not permitted. Materials not listed in the list above may be considered appropriate at the sole discretion of WDC.

2.2.X.7 Windows and Doors: Mākete Medium Density Residential Activity Area

The aim of these controls is to ensure a sense of human scale is achieved throughout Pegasus Resort.

- Natural or stained timber, steel, powder coated aluminium or anodised aluminium joinery in a recessive colour is permitted.
- Windows are to be double-glazed, vertical in proportion and adjoining the golf course, to be toughened glass.
- All glazing is to be non-reflective and no mirrored glass is permitted.
- Shed or Garage doors are to be timber stained or painted and in a recessive colour.

2.2.X.8 Building Projections: Mākete Medium Density Residential Activity Area

The use of verandas, porches and pergolas is encouraged to enhance the outdoor spaces provided for all year round use. Built form projections should be designed as connected elements to the main building form.

- Roof projections, such as chimneys and flues are to be compatible in materials and height with the main building form.
- Chimneys that are considered to be a strong built form element may exceed 1.1m in height and width to a maximum of 2m.
- Verandas, pergolas and balconies are to be of a proportion and scale to suit the development and provide space for people to sit and connect at street level, act as an activation extension to ground floor uses.

2.2.X.9 Car Parking: Mākete Medium Density Residential Activity Area

Car parking controls aim to reduce the adverse effects of at-grade carparking, garaging or car parking structures on Pegasus Resort and to ensure these spaces do not dominate or significantly detract from the pedestrian orientated and landscaped quality of the area.

- 'At-grade' car parking or parking buildings are not considered appropriate for the Village Fringe.
- If at any point this is deemed to be a requirement, the car parking should be appropriately landscaped to retain the character and landscape amenity of Pegasus Resort. Organic patterning of vegetation shall be used to appropriately screen reducing the dominance of parked cars and pavement alongside providing shade for parking in summer. Landscape planting to a high standard should be used to reduce the dominance of hard surfaces and avoid large areas of impermeable surfacing.

2.2.X Mākete Village Activity Area

The Mākete Village Activity Area provides for a market space, supported by a number of small scale, boutique commercial, retail and food and beverage operations. The focus is on agriculture, food production, arts, crafts and culture and historical interpretation.

2.2.X.1 Coverage Controls: Mākete Village Activity Area

Maximum Site Coverage – 20%

Minimum Landscape Coverage – 50%

Maximum Paved/Impermeable Coverage – 30%

2.2.X.2 Maximum Height: Mākete Village Activity Area

Maximum Building Height 9m, 2 storeys

2.2.X.3 Building Setback: Mākete Village Activity Area

A minimum building or structures setback of 30 m shall be maintained to State Highway 1. Adjoining State Highway 1 a landscaped buffers, except for where vehicle entrances are cut through, provide a minimum 7m wide strip that is to be developed with low, naturalistic mounding up to 1.0m high and completely planted in species identified in Section 3 with a minimum height of 0.5m. At least 1 tree capable of reaching 10m at maturity is to be planted per $20m^2$.

Alongside Taranaki Stream, except for where roads or pathways cross, setback areas are to be appropriately planted using locally appropriate indigenous species from within Section 3 to enhance the natural waterway values and should be free of any new structures (other than pathways and decks less than 1m in height).

2.2.X.4 Commercial and Retail Activities: Mākete Village Activity Area

The Market Building is to be located between the car parking and the Village Green, to provide enclosure and shelter to the Village Green. Buildings around the Village Green are intended to house small-scale commercial and retail activities and should be generally only one storey. Buildings around the Green should front onto the green and provide activation to the public area. Food and beverage operations should open out to the creek to the north and the Village Green to the south, with good pedestrian access between and around buildings.

2.2.X.5 Modulation of Buildings: Mākete Village Activity Area

Consideration shall be given to breaking up the mass of building forms in excess of 15m in length. This can be done through the use of recesses, offsets, gable end projections, chimneys, balconies, and the use of façade variation and materials. Blank facades are to be avoided.

2.2.X.6 Roofs: Mākete Village Activity Area

The aim of the following controls is to ensure a unified roofscape that does not detract from the surrounding landscape and the established built form.

- Gable roof or monopitch roofs that reference local agricultural vernacular are preferred, although a contemporary interpretation of these forms is encouraged.
- Flat roofs that connect and link pitched roofed pavilions are acceptable but will generally not exceed 30% of the total roof area of the activity area.
- It is recommended that simple roof forms are used.
- Eaves or overhangs are encouraged.
- Roofs shall have a Light Reflectivity Value (LRV) of between 5-22% in a neutral colour or Resene Heritage Colour.
- Steel tray cladding/roof, profiled metal roofing is permitted, with colours similar to Resene matte finish: Element; Grey Friars; Windswept; Squall; Ironsand; Lignite; High Tide; Charcoal or Karaka.
- Down pipes and gutters will be in a colour matching the roof.
- No hip roofs are permitted.

2.2.X.7 Wall Cladding: Mākete Village Activity Area

The wall cladding controls aim to ensure that new buildings form a cohesive development within a limited palate of materials. Cladding materials shall be authentic and reference the local agricultural heritage. A contemporary interpretation of traditional agricultural materials and forms is encouraged.

The following cladding materials and colours are permitted;

- Concrete with a low light reflection coefficient (i.e., textured such as board formed or oxide additives)
- Brick; red clay brick or similar natural and traditional colours.
- Painted timber, painted in colours typical of traditional agricultural activities

- Natural timber cladding, vertical or horizontal, left to weather, oiled or stained to match an LRV of 5-22%;
- Board and batten stained to match an LRV of 5-22%;
- Corrugated, trapezoidal profiled or tray type colour coated steel, colours typical of traditional agricultural activities.
- Stone; local stone or river stone.
- Joinery, guttering, and downpipes should match roof colours;

Hardie™ Flatboard is not permitted. Materials not listed in the list above may be considered appropriate at the sole discretion of WDC.

2.2.X.8 Windows and Doors: Mākete Village Activity Area

The aim of these controls is to ensure a cohesive design is achieved throughout Pegasus Resort.

- Natural or stained timber, steel, powder coated aluminium or anodised aluminium joinery in recessive colours are permitted.
- Windows are to be double-glazed and reference shape and proportion of traditional agricultural buildings. Large areas of glazed curtain walls should be avoided.
- All glazing is to be non-reflective, no mirrored glass is permitted.

2.2.X.9 Building Projections: Mākete Village Activity Area

The use of verandas, porches and pergolas is encouraged to enhance the outdoor spaces, encourage active frontages Built form projections should be designed as connected elements to the main building form.

- Verandas, pergolas and balconies are to be of a proportion and scale to suit the development and provide space for people to sit and connect at street level, act as an activation extension to ground floor uses.
- A variety of covered outdoor spaces shall be provided to offer shelter and comfort in different weather conditions and throughout the year.

2.2.X.10 Car Parking: Mākete Village Activity Area

Car parking controls aim to reduce the adverse effects of at-grade carparking, garaging or car parking structures on Pegasus Resort and to ensure these spaces do not dominate or significantly detract from the pedestrian orientated and landscaped quality of the area.

- The ‘at-grade’ car parking along the boundary to the State Highway should be treated in semi-permeable surface and landscaped to provide a buffer between the State Highway and the Makete Development.
- Car parking buildings are not considered appropriate for the Mākete Village Development. If at any point this is deemed to be a requirement, any building shall be appropriately modulated

through façade treatment to ensure that it does not inappropriately undermine the character of Pegasus Resort and adjacent areas.

- Organic patterning of vegetation shall be used to appropriately screen reducing the dominance of parked cars and pavement alongside providing shade for parking in summer.
- Landscape planting to a high standard should be used to reduce the dominance of hard surfaces and avoid large areas of impermeable surfacing.
- Best practice urban design solutions should be used to avoid the dominance of car parking areas.
- Coach/bus parking areas shall be appropriately landscaped.

2.2.X.11 Landmark: Mākete Village Activity Area

A landmark structure or sculpture should be provided in this area to assist with way finding for the activity area. The landmark structure or sculpture should be designed by an artist or designer to articulate the cultural heritage and values of the site. Opportunity should be provided for a co-design process with Ngai Tuahuriri to assist with the articulation of cultural values.

3.0 Landscape

3.2 Minimum Landscape Requirements

The minimum amount of open park-like landscaped area in each Activity Area shall be:

1. Spa Activity Area – 40%
2. Spa Village Activity Area – 30%
3. Golf Square Activity Area – 30%
4. Golf Village Activity Area – 40%
5. Village Fringe Activity Area – 90%
6. Golf Course Activity Area – 90%

8. Mākete Village Activity Area – 50%.

Appendix 5:

Indicative Mākete Masterplan

20 June 2022

PEGASUS MĀKETE

Pegasus Mākete

DALMAN ARCHITECTS OF SPACE

Existing Site Plan

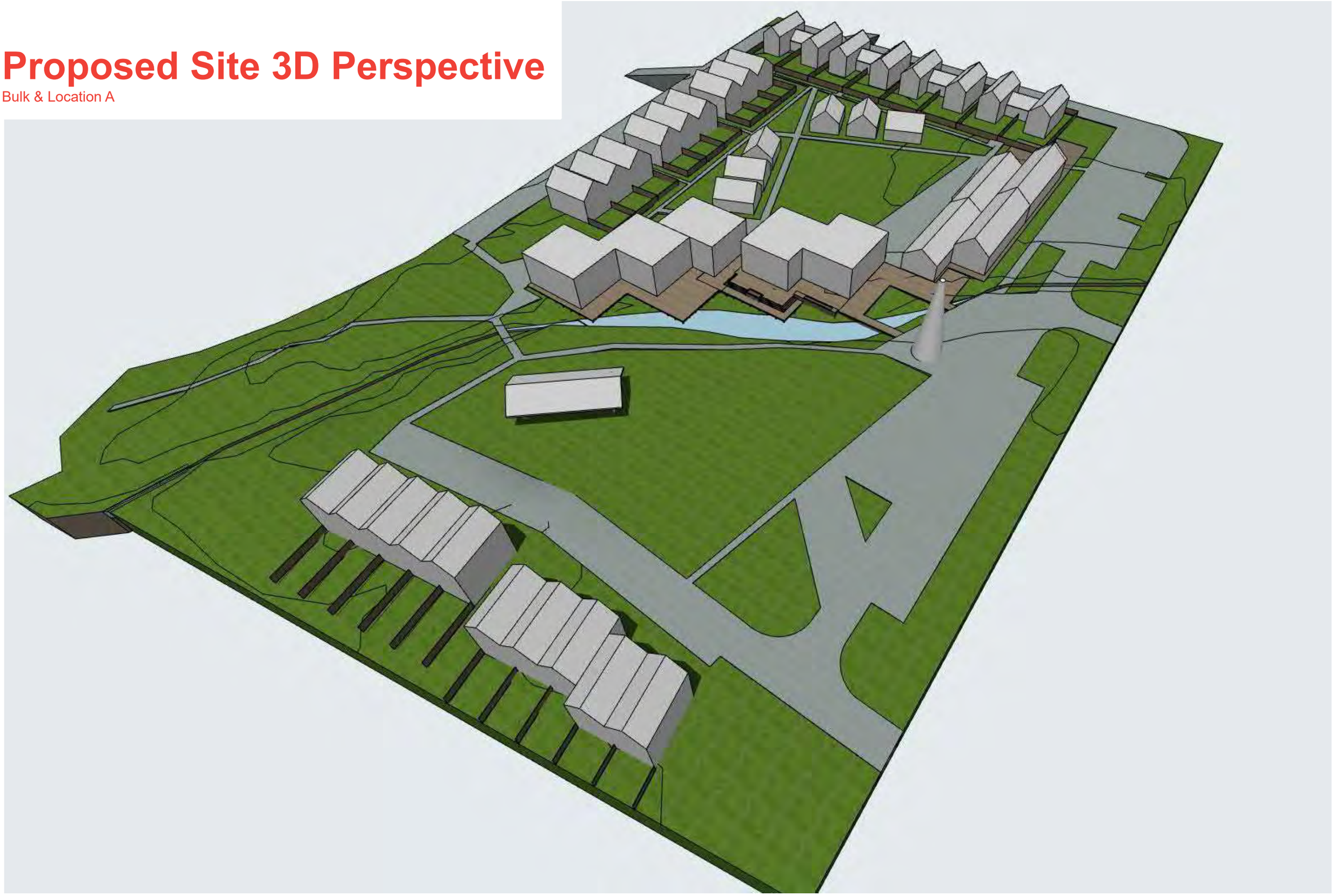
Proposed Site Plan

Proposed Site Plan

- With Flood Risk

Proposed Site 3D Perspective

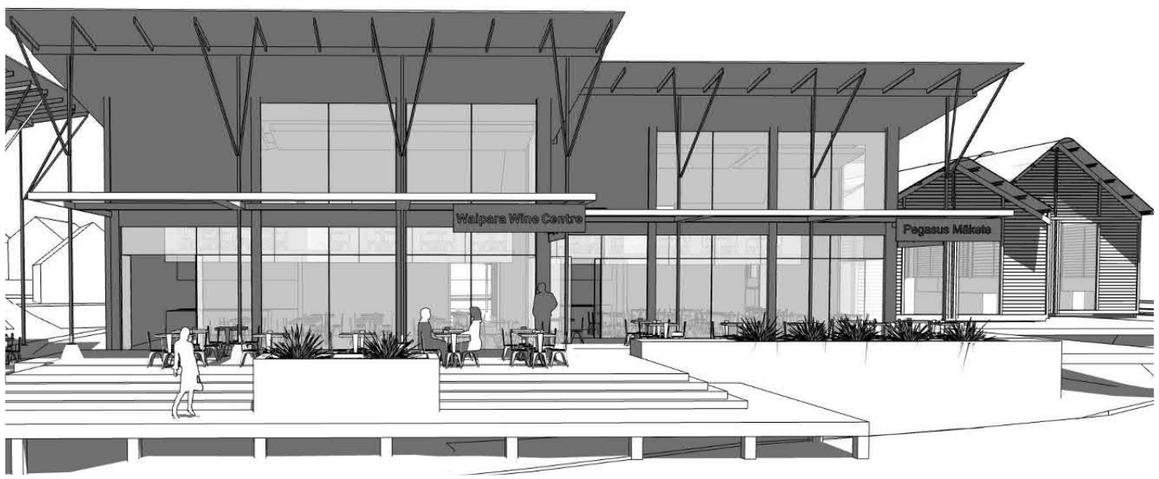
Bulk & Location A

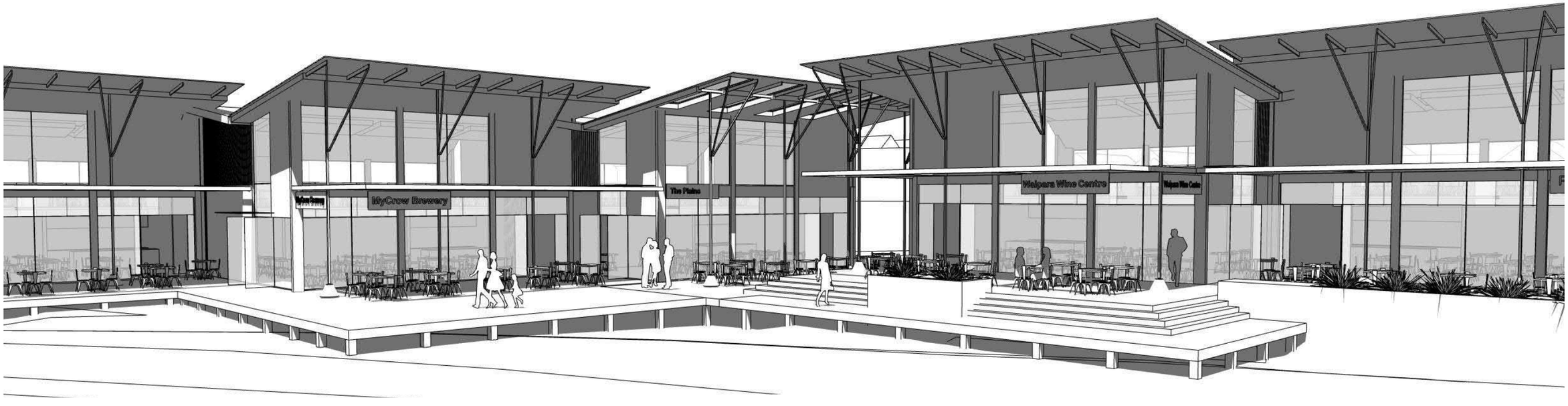


Proposed Site 3D Perspective

Bulk & Location B

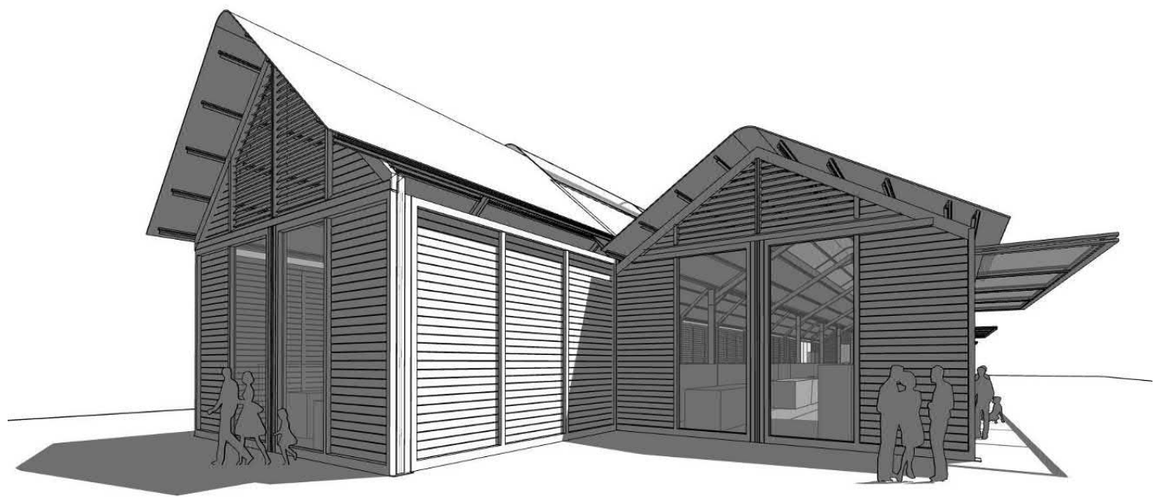
F&B Building Concept

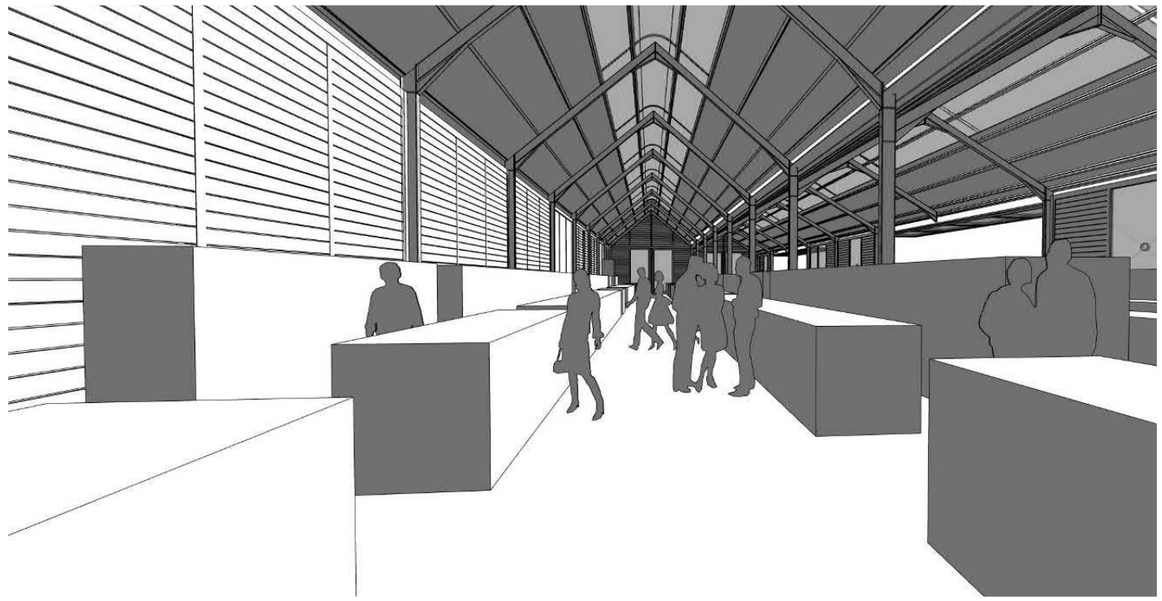


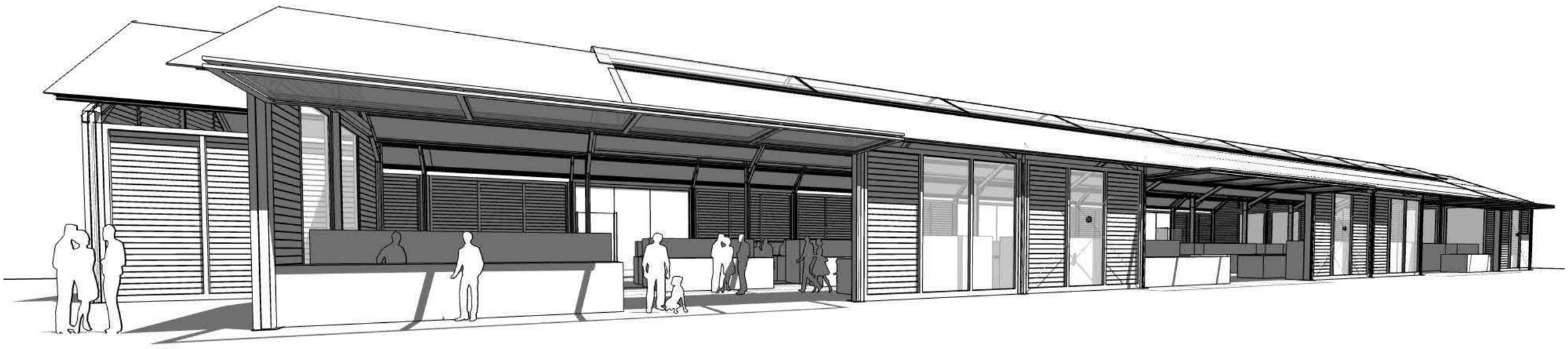


F&B Buildings 3D Perspective

Market Building Concept







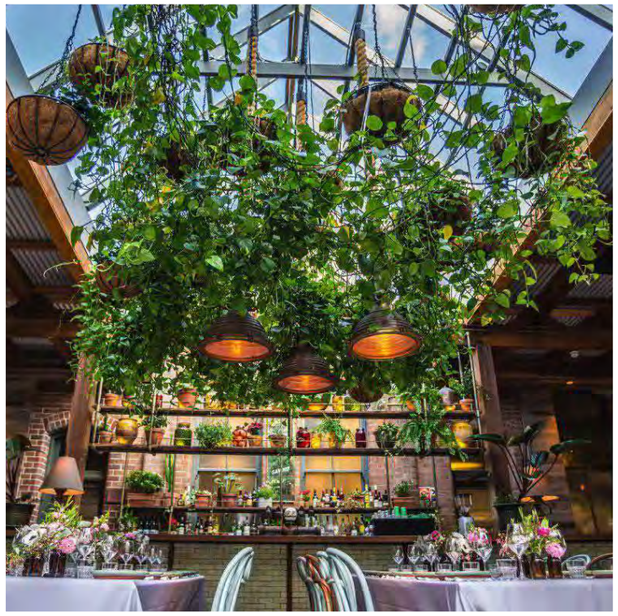
Village Green 3D Perspective

Design Inspiration

Proposed Activities

Design Inspiration

Mākete - Markets

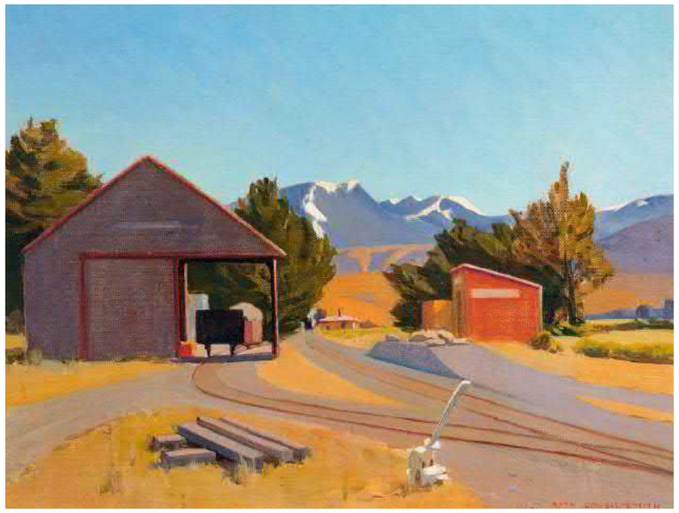


Design Inspiration

Mākete - Markets

Design Inspiration

New Zealand Agricultural Structures



Design Inspiration

Contemporary Structures

Design Inspiration

Materials

Design Inspiration

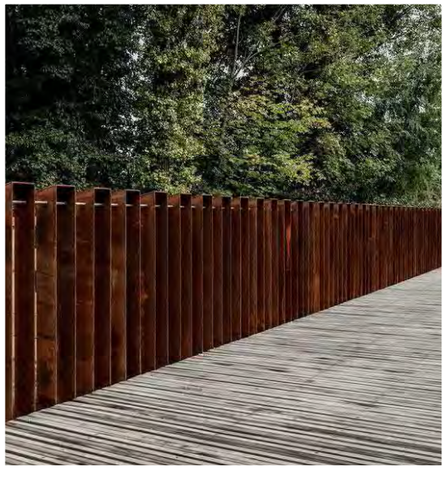
Sculpture / Landmark

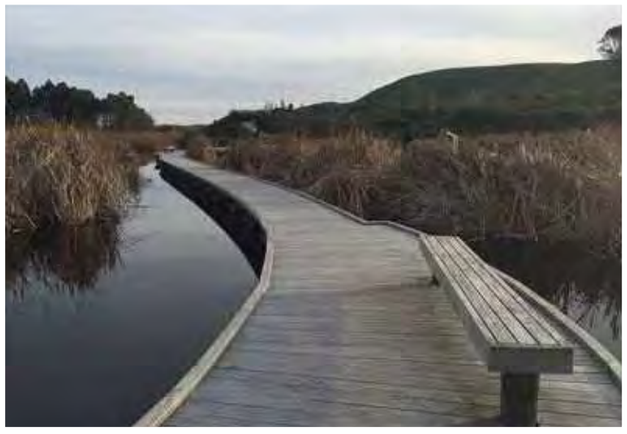
Design Inspiration

Town Houses

Design Inspiration

Site





THANK YOU

Richard Dalman
Managing Director
Christchurch

+64 21 775 445
+64 3 366 5445
rd@dalman.co.nz

Auckland

PO Box 117, Shortland St
Auckland 1140,
New Zealand
+64 9 905 4828
design@dalman.co.nz

Christchurch

825 Colombo St, PO Box
717, Christchurch 8140,
New Zealand
+64 3 366 5445
design@dalman.co.nz

dalman.co.nz

Appendix 6:

Section 32AA Report

Pegasus Mākete – Extension of Special Purpose (Pegaus Resort) Zone

Dexin Investments Limited

November 2022

REPORT INFORMATION AND QUALITY CONTROL

Prepared for:	Sam Huo Dexin Investments Limited	
Author:	James Nicol Planning and Policy Consultant	
Reviewer:	Melissa Pearson Principal Planning and Policy Consultant	
Approved for Release:	Melissa Pearson Principal Planning and Policy Consultant	

Document Name	11062_s32AA_15112022

Version History:	V1.0	18 November 2022

TOITŪ CARBON REDUCE ISO 14064-1 ORGANISATION

+IMPAC PREQUAL HEALTH & SAFETY ASSESSED

CONTENTS

Page

1 EXECUTIVE SUMMARY 2
2 OVERVIEW AND PURPOSE 2
2.1 Description of Proposal 2
2.1.1 Site 5
2.2 Significance of Proposal 5
2.3 Current Objectives, Policies and Methods 5
2.4 Information and Analysis 6
2.5 Consultation Undertaken 9
2.6 Iwi Authority Advice 10
2.7 Reference to Other Relevant Evaluations 12
3 STATUTORY AND POLICY CONTEXT 12
3.1 Resource Management Act 1991 12
3.1.1 Section 6 12
3.1.2 Section 7 12
3.1.3 Section 8 13
3.2 National Instruments 13
3.2.1 National Planning Standards 13
3.2.2 National Policy Statements 13
3.2.3 Medium Density Residential Standards – Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 17
3.2.4 National Environmental Standards 17
3.3 Regional Policy Statements and Plans 17
3.3.1 Canterbury Regional Policy Statement 2013 17
3.4 Consideration of the CRPS and the NPS-UD 2020 19
3.5 Iwi Management Plan 20
3.5.1 Mahaanui Iwi Management Plan 2013 (IMP 2013) 20
3.6 Any relevant management plans and strategies 22
3.6.1 The Waimakariri 2048 District Development Strategy 22
3.6.2 Our Space 2018-2048, Greater Christchurch Settlement Pattern Update (July 2019) 23
3.7 Any plans of adjacent or other territorial authorities 23
4 PROPOSED AMENDMENTS 24
4.1 Updated Objectives and Policies 24
4.2 Updated Methods 24
4.2.1 Other Methods 24
5 SCALE AND SIGNIFICANCE EVALUATION 24
6 EVALUATION OF EXISTING AND PROPOSED OBJECTIVES 27
7 EVALUATION OF PROPOSED POLICIES AND METHODS 29
8 SUMMARY 39

List of Appendices

Appendix A: Economic Assessment
Appendix B: Landscape Effects Assessment
Appendix C: Urban Design Assessment
Appendix D: Integrated Transport Assessment
Appendix E: Infrastructure Servicing Report
Appendix F: Ecological Assessment

1 EXECUTIVE SUMMARY

This report provides an evaluation of the requested rezoning of the Pegasus Mākete site located at 1250 Main North Road, Pegasus from Rural Lifestyle Zone to Special Purpose (Pegasus Resort) Zone under the Proposed Waimakariri District Plan. he requested rezoning of the site will provide for a visitor destination to complement the existing resort activities.

The rezoning will utilise the existing framework of the notified special purpose zone with amendments to provide for tourism focused activities with fringe medium density activities. The rezoning of the site is required as the current Rural Lifestyle zoning does not enable the proposed development and the proposed activity aligns with the overarching intent of the special purpose zone.

The rezoning of the site will contribute to the social, economic and cultural wellbeing of the of the wider community. The proposed provisions reflect current best practice elsewhere, particularly in the adoption of an outline development plan that provides for an effective response to the management of resort zone outcomes that are within a confined development area. The proposed provisions are consistent with national and regional policy direction and will better achieve Part 2 of the RMA.

2 OVERVIEW AND PURPOSE

This report is provided to Waimakariri District Council in support of DEXIN Investments Limited (**DIL**) submission on the Proposed Waimakariri District Plan (**PDP**). DIL's submission seeks the rezoning of the site at 1250 Main North Road, Pegasus from Rural Lifestyle to Special Purpose Zone Pegasus Resort (**SPZ-PR**) within the PDP. This report provides an overview of the proposal, summary of technical information, proposed amendments to the SPZ-PR, and an evaluation of the rezoning request in accordance with section 32AA of the Resource Management Act 1991 (**the Act**). The section 32AA analysis provides a further evaluation of only the proposed changes to the provisions of the SPZ-PR that will provide for the proposed rezoning.

Section 32AA of the Resource Management Act 1991 (RMA) requires that a further evaluation be undertaken where changes are recommended to a proposed policy statement or plan since the section 32 (**s32**) evaluation report was originally completed and notified. The section 32AA evaluation must be undertaken in accordance with the criteria outlined in section 32(1)-(4) and at a level of detail that corresponds to the scale and significance of the changes.

The following section S32AA evaluation is to be read in conjunction with the s32 evaluation undertaken for the SPZ-PR.

2.1 Description of Proposal

DIL made a submission on the PDP seeking the rezoning of Pegasus Mākete at 1250 Main North Road, Pegasus from Rural Lifestyle Zone to SPZ-PR. The objective of this rezoning request is to provide for Pegasus Mākete as a high-quality tourism destination providing a broad range of tourism-based activities with a limited amount of medium density residential activities on the fringe of the SPZ-PR. Pegasus Mākete will provide for a natural and complementary extension of the SPZ-PR through the creation of a visitor destination within the Waimakariri District. The requested rezoning will provide for the following two new activity areas in addition to the seven existing activity areas (noting the renaming of Activity Area 7 to 7A):

- **Activity Area 7B: Mākete Medium Density Residential**
  - Provides for medium density residential sites that can be developed in accordance with the medium density residential standards[1]. It is envisioned that this activity area will provide a mix of duplex and terrace style residential dwellings with a high level of design quality.

[1] The medium density residential standards were introduced by Resource Management (Enabling Housing Supply and Other Matters) Amendment Ac t 2021 and adopted within the Proposed District Plan as Variation 1: Housing Intensification.

- **Activity Area 8: Mākete Tourism**
  - Provides for a range of tourism and commercial activities that will provide a visitor destination to complement Pegasus Resort. The foundation of this area will be a market area to provide for local producers to directly retail produce. The area will be supplemented by visitor attractions that will provide educational and entertainment experiences to visitors to highlight sustainable production of food and materials.

The new activity areas will determine what activities are enabled in Pegasus Mākete and ensure the effective delivery of the site as a tourist destination. To support the rezoning of the site to SPZ-PR, an updated Outline Development Plan (**ODP**) has been prepared to provide for the proposed Mākete tourism and medium density residential activities. The ODP is supported by amended SPZ-PR provisions that will provide for the proposal, updates to the existing SPZ-PR design guidelines to address the new activity areas, and an indicative masterplan to provide further guidance on the urban design outcomes expected of Pegasus Mākete.

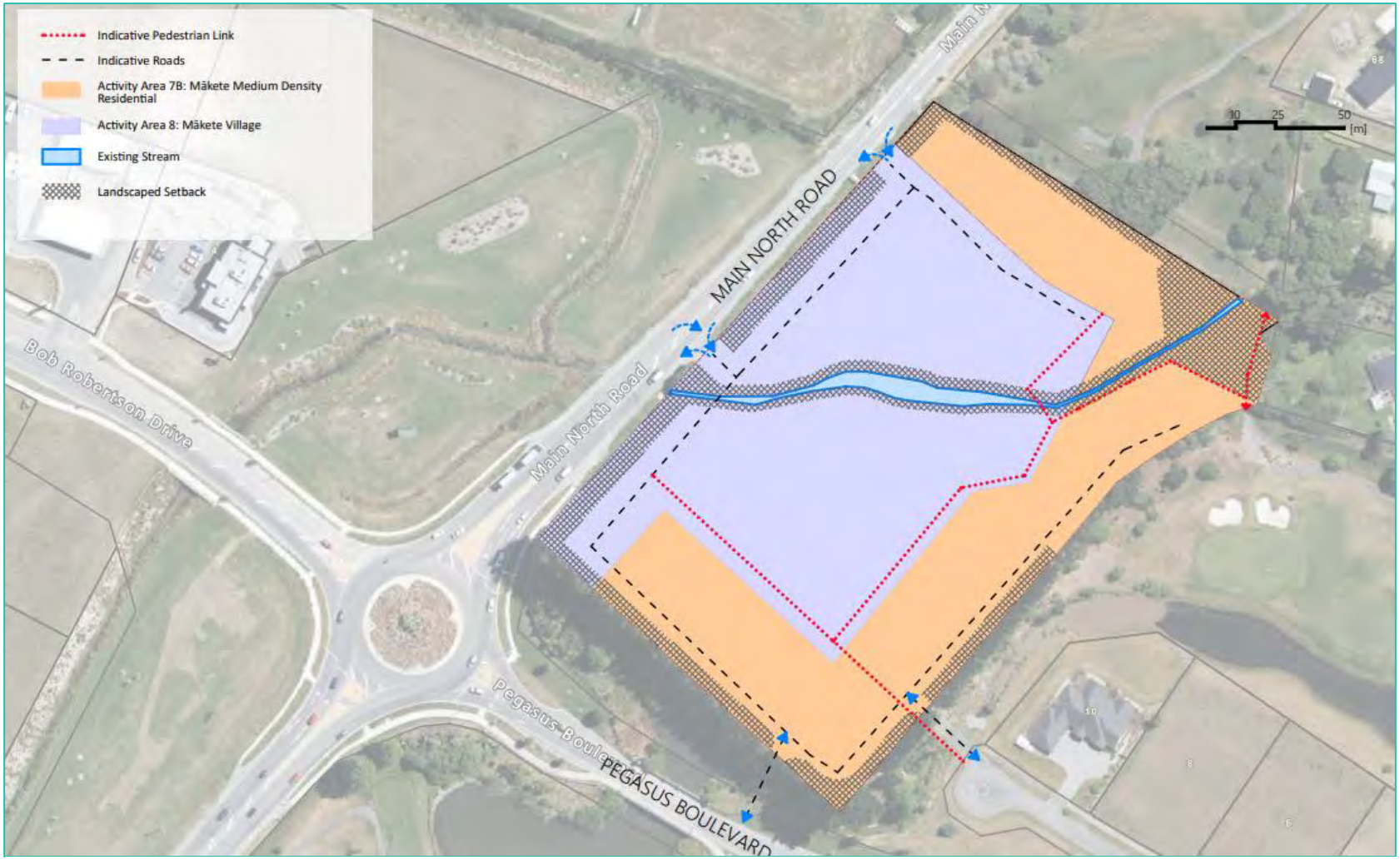


Figure 1: Proposed Outline Development Plan for rezoning of 1250 Main North Road to Special Purpose (Pegasus Resort) Zone.

2.1.1 Site

DIL own the Pegasus Mākete site (**the site**), located at 1250 Main North Road, Pegasus which is legally described as Part Rural Section 864 held in Record of Title 1078395 and is approximately 3.05 hectares in area. Record of Title 1078395 also contains Lots 97 and 700 Deposited Plan 417391 which are currently located within the SPZ-PR and are not subject to the requested rezoning. The site is located on the corner of Main North Road/State Highway 1, and Pegasus Boulevard. The site contains an existing dwelling and several ancillary buildings, with mature trees located along the site boundaries and at the centre of the site. The Taranaki Stream, a tributary of the Rakahuri/Ashley River, bisects the site and enters the property on the western site boundary and exits at the northeast corner.

The site is currently zoned Rural Lifestyle Zone in the PDP and adjoins land zoned SPZ-PR to the north, south, and east of the site. The site is located within the following Sites and Areas of Significance to Māori (SASM) overlays:

- SASM006 – Wāhi Tapu – Silent File 022;
- SASM013 – Ngā Tūranga Tūpuna – Cultural Landscape encompassing an area of high coastal settlement (in both contemporary and ancestral senses). It comprises significant clusters of recorded archaeology of Māori origin and silent files; and
- SASM025 – Ngā Wai – Rakahuri (incl. tributaries) – River and tributaries (ngā awa me ngā manga) with Mahinga Kai environs, habitats and taonga species.

Parts of the site adjoining Taranaki Stream and the northeast corner are subject to the Urban Flood Hazard Assessment Overlay. A mix of General Residential and General Industrial zoned land is located to the west around Ravenswood.

2.2 Significance of Proposal

The proposed rezoning of the Pegasus Mākete site is a natural extension of the SPZ-PR as it will provide for complementary tourism focused activities on the fringe of what is a major 'tourism focused' zone within the Waimakariri District. Economic analysis of the proposal has demonstrated that Pegasus Mākete would have economic benefits for the district, support the diversification of the district's tourist destination strategy and grow Waimakariri's tourism economy[2]. Critically, the economic analysis also demonstrated that Pegasus Mākete will not directly compete with or undermine the functioning of existing commercial areas within the district as they offer distinct activities and services.

2.3 Current Objectives, Policies and Methods

The proposed Pegasus Mākete site is proposed to be Rural Lifestyle Zone (**RLZ**) under the PDP.

Objectives and policies for the RLZ are contained within an overarching framework that applies to all rural zones. The zone provisions emphasise the rural focus of the zone by providing for primary production activities and other rural activities, while recognising that the predominant character of the zone is derived from smaller sites used for residential activities, with a pattern of built form of residential units that is more intensive than other rural environments.

The development of commercial tourism and farmers market type activities and residential activities at the density proposed for the Pegasus Mākete site is not anticipated within the RLZ and would be considered as a non-complying activity. The objective and policy framework for the RLZ is unlikely to provide any support for the proposal given the intensity of development that is envisioned for the site compared to the lower density, rural focus of the RLZ.

The extension of the SPZ-PR to the site, updates to the ODP and Pegasus design guidelines and the introduction of bespoke rules for the site will allow Pegasus Mākete to integrate with the wider resort zone. The rezoning of the site will assist with ensuring that an island of Rural Lifestyle zoned land can be incorporated into the developing urban fringe of Ravenswood and Pegasus Resort. The comprehensive development of the site will improve the land use

[2] From Executive Summary of the Pegasus Mākete Visitor Destination Economic Assessment, Property Economics, Pg 7.

efficiency while providing opportunities to ensure the maintenance and enhancement of the landscape and amenity values of the area.

2.4 Information and Analysis

The following assessment reports have been provided on the topic of rezoning Pegasus Mākete from RLZ to SPZ-PR in the PDP:

Report	Author	Summary
Economic Assessment	Tim Heath, Property Economics	The economic report determines that the proposed Mākete land uses are appropriate from an economic perspective and would provide benefits to the Waimakariri district economy. The report notes that the proposed range of activities within Mākete will not undermine the existing and emerging key activity centres (including Rangiora and Kaiapoi) as they will not compete with or duplicate existing business activities within those centres. The report also note that the proposal will support the diversification of the district's tourism strategy. The report identifies the likely economic benefits as: ▪ Improved land use efficiency; ▪ Increased housing capacity; ▪ Increased choice of dwelling location and typology; ▪ Enhanced district and local profile; ▪ Provision of additional employment opportunities; ▪ Improving existing accommodation utilisation; ▪ Diversify economic composition; ▪ Support local farmers/growers; and ▪ Supporting healthy communities. Identified economic costs are restricted to loss of land conservation and productive land. The identified costs are qualified through the absence of rural activities currently occurring and the site size being below what is commonly considered to be necessary for most primary production activities. Overall, the report concludes that the economic benefits of the proposal outweigh the economic costs.

Landscape Effects Assessment	Mike Moore, Mike Moore Landscape Architect	The landscape report determines that the landscape effects of the proposal will be positive. The report notes that the site currently has a rural character that is being modified by encroaching urban land use activities through the development occurring in Ravenswood and Pegasus Resort. Consequently, the assessment was undertaken on the basis that these urban landscape activities will the character of the site and surround area. It is noted within the assessment that the wider area has some associative values related to its Māori cultural significance, including Taranaki Stream. The assessment determined that opportunities exist for these values to be enhanced for Taranaki Stream through the reintroduction of indigenous biodiversity while the development will provide opportunities for landscape values to be appropriately interpreted and highlighted. The assessment undertaken determined that the proposal will integrate well with the landscape surrounds of the existing elements of the Pegasus Resort and will have minimal adverse impacts on the outlook of existing residential properties that adjoin the site. The assessment notes that one residential property (10 Burntwood Lane) may experience adverse landscape effects, however it was determined that a sufficient baseline exists within the PDP for rural buildings to be constructed of a similar size but closer to the site boundary that what is proposed. The assessment identified mitigation measures to be included within the proposed provisions for Mākete to ensure that landscape effects will be positive.
Urban Design Assessment	James Lunday, Common Ground Southern	To urban design report evaluates the indicative masterplan against recognised urban design principles and provides an outline development plan for the proposed rezoning. The assessment against recognised urban design principles is summarised below: ▪ Diversity/Variety Provides a mix of uses that are currently unavailable in the district with a urban fabric around a green space/public realms. ▪ Concentration Built form will be concentrated to ensure a large amount of the site remain as open space/amenity landscape. ▪ Accessibility/Connectivity Accessible by a range of transportation modes and provides opportunities to connect with wider zone. ▪ Identity Will provide strong architectural language that provides a character and identity of place. ▪ Robustness Will provide space and places that are suitable for a range of uses that will be adaptable over time. ▪ Sustainability Will provide opportunities to enhance landscape and biodiversity values at the site.

		▪ Community Design provides employment opportunities and housing and a public space for events. ▪ Cultural Heritage Will provide opportunities to preserve and interpretate built heritage while also providing opportunities to enhance cultural landscapes. The urban design assessment concludes that the proposal is appropriate and satisfies recognised urban design principles.
Integrated Transport Assessment	Jay Banththana, Abley	The transport assessment identifies, evaluates and assess the transport network effects of the requested rezoning. The assessment has been informed by a projection of the likely trip generation, composition, and distribution from the proposed land use activities within Pegasus Mākete. The projection of trip generation has been undertaken using identified trip rate sources and first principles approach where an appropriate trip rate could not be identified within those sources. The assessment also identifies the assumptions that have been made regarding trip composition (new trips, diverted trips, pass-by trips) and trip distribution for inbound and outbound trips. The assessment of transport network effects arising from the vehicle accesses, and the operation of the State Highway 1/Pegasus Boulevard roundabout models three scenarios for weekday and weekend peak hours trips: ▪ 2022 existing baseline; ▪ 2029 future baseline with Pegasus Resort; and ▪ 2029 future baseline with Pegasus Resort and Pegasus Mākete. The transport assessment concludes that the proposed vehicle accesses will function well in the future scenarios with no significant congestion. The transport assessment identifies that the SH1/Pegasus Boulevard roundabout will be operating near or at capacity following full development of the site, however also identifies uncertainty regarding the likely timing of the Woodend Bypass which would change the layout of this intersection. The assessment identifies that the scenarios have been modelled on conservative assumptions for traffic generation and distribution and recommends that further assessment is undertaken at resource consent stage for commercial tourism activities to provide certainty regarding likely network effects. The report recommends that consultation should be undertaken with Waka Kotahi on potential timing of the Woodend Bypass Project, however provides the following recommendations if should the delivery of the Woodend Bypass not align with development on the site: ▪ Require further transport assessment at resource consent stage to confirm acceptability of transport network effects; ▪ Stage/cap development prior to the Woodend Bypass becoming operational’

		▪ At resource consent stage, implement feasible roundabout upgrades in conjunction with Waka Kotahi such as signalised control of approaches at peak times. While the assessment acknowledges that at peak times, the transport network will be operating at or near capacity, options have been recommended to minimise the transport effects until the timing of the Woodend Bypass is understood.
Infrastructure Servicing Report	Jenny Bull, Eliot Sinclair & Partners	The infrastructure servicing report addresses the stormwater, wastewater, water supply, power, gas and telecommunications capacities and requirements to service the development. In terms of stormwater, the report identifies three stormwater treatment options that mimic natural process prior to discharge into Taranaki Stream and confirms that sufficient space is available on site for appropriate stormwater treatment. Sufficient capacity within the surrounding reticulated water and wastewater systems has been confirmed with WDC, while connections are available to utility services. The report concludes that overall, the proposal can be supported in respect of infrastructure and servicing capacity.
Ecological Assessment	Keren Bennett, 4Sight Consulting	The ecological assessment identifies that the site comprises a highly modified environment, with Taranaki Stream being the most notable ecological feature. Despite the presence of the stream, the overall ecological values of the site are considered to be low. The stream provides a habitat for a small range of macroinvertebrates and native fish species, with non-ecologically significant vegetation providing important functions for Taranaki Stream. The ecological assessment determined that the areas of ecological interest and value will be maintained by the proposal, but that the rezoning and subsequent development of the site will also provide the opportunity to enhance the biodiversity and riparian values of the site.

2.5 Consultation Undertaken

Consultation has been undertaken as part of the requested rezoning with key stakeholders. Relevant consultation has been summarised below:

Date	Group	Subject Matter	Feedback
15 February 2022	Waimakariri District Council	Pathway for rezoning of the site and scope of further submission	WDC confirmed that if the Mākete rezoning request was not advanced through further submissions on the PDP, there is a two year period after a decision has been made on a proposed plan where local authorities cannot accept requests for private plan variations, so there would be a significant delay before DIL would be able to rezone the site through a private plan variation/change. WDC confirmed that there is sufficient scope with the primary submission for DIL to advance the rezoning request by providing substantive additional content and information to support the proposal through a further submission.

			WDC confirmed that it had not identified any procedural issues with progressing the rezoning in this manner.

2.6 Iwi Authority Advice

Clause 3(1)(d) of Schedule 1 of the RMA sets out the requirements for local authorities to consult with iwi authorities during the preparation of a proposed plan. Clause 4A requires the District Council to provide a copy of a draft proposed plan to iwi authorities and have particular regard to any advice received. This section summarises the consultation feedback/advice received from the iwi authority relevant to the requested rezoning of the site to SPZ-PR.

The PDP identifies that the site is subject to the following SASM overlays:

- SASM006 – Wāhi Tapu – Silent File 022;
- SASM013 – Ngā Tūranga Tūpuna – Cultural Landscape encompassing an area of high coastal settlement (in both contemporary and ancestral senses). It comprises significant clusters of recorded archaeology of Māori origin and silent files; and
- SASM025 – Ngā Wai – Rakahuri (incl. tributaries) – River and tributaries (ngā awa me ngā manga) with Mahinga Kai environs, habitats and taonga species.

DIL undertook initial consultation with Mahaanui Kurataiao Limited on behalf of Ngāi Tahu (tangata whenua of the Canterbury Region) and Te Ngai Tūāhuriri Rūnanga (rūnanga who hold manawhenua over the project's location, as it is within their takiwā) and recieved initial advice relating to the proposal.

Further engagement is ongoing to resolve the identified concerns with the proposal. The assessment and analysis of the requested rezoning undertaken within Sections 6, 7 and 8 is subject to the resolution of these concerns through further engagement.

Date	Iwi Authority	Subject Matter	Advice Received	Consideration of, and response to, Advice
23 June 2022	Mahaanui Kurataiao Limited on behalf of Ngāi Tahu (tangata whenua of the Canterbury Region) and Te Ngai Tūāhuriri Rūnanga (Rūnanga who hold manawhenua over the project's location, as it is within their takiwā).	Initial comments on the proposed rezoning and development.	Manawhenua advise that the site sits within an important cultural landscape and is located within a Silent File area. The following concerns were identified: ▪ For Te Ngāi Tūāhuriri, a high level of high protection is required for the tapū nature of this site. The remains of tūpuna were interred here following the massacre at Kaiapoi ▪ Concerns have been raised that the agrarian and rural theme of the development is not considered appropriate for the sensitivity of this location and presents a potential conflict with manawhenua identity and the site as a cultural landscape.	Engagement with manawhenua is ongoing. DIL engaged Cherie Tirikatene to consult with whanau and hapu representatives to identify more culturally appropriate activities that can be incorporated into the proposal.. In accordance with SPZ(PR)-P5 and the Pegasus design guidelines, development will also explore design responses that recognise the cultural values and narrative of the site. To respond to the identified tāpu nature of the site, DIL have also offered that the development activities will also be subject to the following measures that will be implemented prior to development occurring on the site: ▪ Require a Te Ngāi Tūāhuriri approved accidental discovery protocol to be implemented; ▪ Require all earthworks are to be under the supervision of a Te Ngāi Tūāhuriri approved cultural monitor; and ▪ In partnership with Te Ngāi Tūāhuriri, prepare and implement a management plan to protect and enhance cultural values and mahinga kai. Further engagement will determine whether these measures will be adopted and any additional mitigation. It is anticipated that further measures may also be recommended by manawhenua to respond to the cultural significance of the site and these will be considered by DIL when these are received.

2.7 Reference to Other Relevant Evaluations

This section 32AA topic report should be read in conjunction with the following evaluations prepared to support other chapters of the PDP:

(a) **Strategic Directions** – this chapter focuses on key issues for the district and establishes the overall management approach and provides an overview for the direction of future development in the district.
(b) **Transport** – this chapter contains provisions relating to standards for access, parking, intersections and roads of relevance to the site.
(c) **Subdivision** – this chapter contains provisions relating to subdivision of Pegasus Mākete.
(d) **Special Purpose Zone (Pegasus Resort)** – this chapter focuses on the creation of this special purpose zone.

3 STATUTORY AND POLICY CONTEXT

3.1 Resource Management Act 1991

Section 5 of the RMA sets out the purpose of the RMA, which is to promote the sustainable management of natural and physical resources. In achieving this purpose, authorities need to recognise and provide for matters of national importance identified in Section 6, have particular regard to other matters listed in Section 7, and take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) under Section 8.

3.1.1 Section 6

The Section 6 matters relevant to the SPZ-PR are:

(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:

(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:

The Ecological Assessment concluded that the rezoning and consequent redevelopment of the site would provide an opportunity to enhance the biodiversity and riparian habitat values of the Taranaki Stream, the only notable ecological feature of the site. This determination was made on the basis that sediment and stormwater discharges could be appropriately managed to avoid impacts upon in-stream water quality and subsequent downstream receiving environments. The infrastructure report prepared by Eliot Sinclair demonstrated that stormwater discharges from the proposed development can be appropriately managed.

It is recognised that the site sits within an important cultural landscape values to mana whenua and includes wāhi tāpu, taonga, and mahinga kai values. Engagement with rūnanga is ongoing and will assist with recognising and providing for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.

3.1.2 Section 7

The Section 7 matters relevant to the Pegasus Resort Special Purpose Zone are:

(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:

Consultation with mana whenua is ongoing to ensure that the proposal and resulting land uses reflect the cultural significance of the site. The relevant notified provisions and urban design guidelines in the SPZ-PR that were developed based on previous consultation to recognise these cultural values with mana whenua on the SPZ-PR will apply to the site and will assist with ensuring local rūnanga are able to exercise kaitiakitanga.

A range of provisions in the SPZ-PR that will apply the Pegasus Mākete are aimed at promoting the maintenance and enhancement of amenity values and the quality of the environment. Any future development will be carefully managed by the proposed provisions and the ODP to ensure the efficient use and development of natural and physical resources.

3.1.3 Section 8

Section 8 is relevant to the SPZ-PR. Section 8 requires that "*in achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi)".*

As noted above, engagement with mana whenua is ongoing. The obligation to make informed decisions based on the outcome of that engagement is noted. Subject to mana whenua concerns being resolved, the assessment contained within this report considers that the proposed provisions, in the context of advancing the purpose of the Act, will achieve the sustainable management of natural and physical resources.

3.2 National Instruments

The following national instruments are relevant to the SPZ-PR:

3.2.1 National Planning Standards

The National Planning Standards were introduced in November 2019 with the purpose of improving the consistency of council plans and policy statements.

The proposed rezoning of Pegasus Mākete will align with the SPZ-PR as notified, which is a bespoke Special Purpose Zone under the National Planning Standards (as opposed to one of the listed Special Purpose Zones). The Standards are clear that a bespoke Special Purpose Zone should only be created if the activities proposed for that zone:

a. Are significant to the district, region, or country;

b. Are impractical to be managed through another zone;

c. Are impractical to be managed through a combination of spatial layers.

The criteria for the creation of a bespoke special purpose zone have been assessed previously in the s32 analysis for the SPZ-PR. In this case, the same analysis applies as Pegasus Mākete will contribute to the district and regionally significant Pegasus Resort through providing complementary tourism activities and employment opportunities. Existing zones (as assessed in Section 7 below) are impractical to provide for the proposed mix of commercial tourism, market, and residential activities. Further, the use of the notified SPZ-PR with amendments will provide certainty to development outcomes rather than rely upon the resource consent process.

The National Planning Standards also require standard definitions to be used unless there is a specific reason for developing a bespoke definition. In the case of the proposal, standard definitions have been used where they appropriately capture the activities proposed for the Mākete development. However, a bespoke definition for Mākete Tourism is proposed to be introduced into the SPZ-PR to adequately capture the mixture of tourism and market type activities anticipated for the site. This bespoke definition is also required to limit the types of activities that can occur within Pegasus Mākete to ensure alignment with the intention of the SPZ-PR. This definition will also assist to ensure that commercial elements of the proposed tourism activities do not compete with or detract from the function of commercial centres within the Waimakariri district.

3.2.2 National Policy Statements

National Policy Statements (**NPS**) and the New Zealand Coastal Policy Statement (**NZCPS**) form part of the Resource Management Act's policy framework and are prepared by central government.

The following table lists the current NPS that are either relevant to the request to rezone Pegasus Mākete to SPZ-PR, or require further clarification as to why they are not relevant:

NPS	Relevance
National Policy Statement on Freshwater Management 2020	Relevant – the Taranaki Stream (a tributary to the Rakahuri / Ashley River) bisects the site. The stream will be naturalised and form part of the stormwater network for the site.
National Policy Statement for Urban Development 2020	Relevant – local authorities to complete a housing and business development capacity assessment (HBA) by 2024 and this will include consideration of urban zones such as the SPZ(PR) that contribute to both housing and business development capacity.
National Policy Statement on Highly Productive Land 2022	Not relevant – for completeness, the NPS-HPL does not apply to the site in accordance with Clause 3.5(7) as it is identified as Rural Lifestyle within the PDP.

3.2.2.1 National Policy Statement for Freshwater Management

The National Policy Statement for Freshwater Management 2020 came into effect on 3 September 2020 and replaces the earlier NPSFM 2014 (amended 2017).

The Ecological Assessment prepared by Keren Bennet, 4Sight Consulting, includes an assessment of the ecological values of the site and surrounding area, and discusses the ecological effects of the rezoning of the site. The Taranaki Stream is identified as the most notable ecological feature of the site. No wetlands or area indicating presence of potential wetlands were identified on the site.

The Taranaki Stream will form part of the stormwater network for the site. Stormwater and sediment management options have been considered to ensure that runoff will not generate adverse ecological effects on the stream or downstream receiving environments. Stormwater management will include attenuation to pre-development levels, while a treatment train, including the use of artificial wetlands, will maintain water quality.

Notably, the Ecological Assessment concluded that despite potential modification of, and construction adjoining, the Taranaki Stream, the rezoning and subsequent development of the site offers an opportunity to improve and enhance the existing low biodiversity and riparian habitat values within the site[3].

Overall, the proposed rezoning is considered consistent with the National Policy Statement for Freshwater Management.

3.2.2.2 National Policy Statement for Urban Development 2020

The NPS-UD 2020 came into effect on 20 August 2020 and replaced The National Policy Statement Urban Development Capacity 2016. The NPS-UD 2020 sets out the objectives and policies for planning well-functioning urban environments under the RMA. It recognises the national significance of urban environments and the need to enable such environments to develop and change, and to provide sufficient development capacity to meet the needs of people and communities and future generations in urban environments.

[3] Page 13, *Pegasus Mākete 1250 Main North Road, Woodend – Ecological Assessment*, Keren Bennet – 4Sight Consulting

Objectives and policies

- Objective 1 requires New Zealand local authorities to plan well-functioning urban environments that enable people to provide for their social, economic and cultural wellbeing
- Objective 2 requires that planning decisions improve housing affordability by supporting competitive land and development markets.
- Objective 3 requires that regional policy statements and district plans enable more people to live in, and more businesses and community services to be located in, areas of an urban environment in which one or more of the following apply:
  - the area is in or near a centre zone or other area with many employment opportunities
  - the area is well-serviced by existing or planned public transport
  - there is high demand for housing or for business land in the area, relative to other areas within the urban environment.
- Objective 4 recognises that these urban environments are going to develop and change over time in response to the changing needs of people, communities and future generations
- Objective 6 requires that local authority decisions on urban development that affect urban environments are:
  - integrated with infrastructure planning and funding decisions; and
  - strategic over the medium term and long term; and
  - responsive, particularly in relation to proposals that would supply significant development capacity.

The requested rezoning of the site is consistent with the following policies of the NPS-UD (and by extension the objectives listed above that these policies give effect to):

Policy	Assessment
Policy 1: Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum: a) have or enable a variety of homes that: (i) meet the needs, in terms of type, price, and location, of different households; and (ii) enable Māori to express their cultural traditions and norms; and b) have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and c) have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and d) support, and limit as much as possible adverse impacts on, the competitive operation of land and development markets; and	▪ The proposed medium density residential housing is consistent with this policy as it will provide for a range of housing typologies and that will meet the needs of different households. ▪ The provision of land for mākete tourism is consistent with this policy as it will provide for a range of activities such as a destination market to support the tourism sector. The location adjoining an existing major resort will also supports a range of activities occurring on the site. ▪ The site is ideally located to utilise existing public transport connections to other urban areas within Greater Christchurch, with a number of Metro Bus stops located in close proximity. Foot and cycle paths also provide access to a range of services within Pegasus for active transportation modes. Through these multiple transport modes, the rezoning of the site is consistent with this policy. ▪ The rezoning will support the competitive operation of land and development markets through providing for additional housing and business land options within the Waimakariri district.
Policy 2: Tier 1, 2, and 3 local authorities, at all times, provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term, medium term, and long term.	▪ The rezoning will support the provision of both housing and business land and the ability of the Waimakariri District Council to provide sufficient development capacity as required by this policy.

Policy 3: In relation to tier 1 urban environments, regional policy statements and district plans enable: d) within and adjacent to neighbourhood centre zones, local centre zones, and town centre zones (or equivalent), building heights and densities of urban form commensurate with the level of commercial activity and community services.	▪ the building heights enabled within Pegasus Mākete are commensurate with level of commercial and community services provided on the site and within the nearby local centre zones in Pegasus and Woodend. The building heights in Activity Area 7B also align with the MDRS, which are discussed in further detail below.
Policy 6: When making planning decisions that affect urban environments, decision-makers have particular regard to the following matters: a) the planned urban built form anticipated by those RMA planning documents that have given effect to this National Policy Statement b) that the planned urban built form in those RMA planning documents may involve significant changes to an area, and those changes: (i) may detract from amenity values appreciated by some people but improve amenity values appreciated by other people, communities, and future generations, including by providing increased and varied housing densities and types; and (ii) are not, of themselves, an adverse effect c) the benefits of urban development that are consistent with well-functioning urban environments (as described in Policy 1) d) any relevant contribution that will be made to meeting the requirements of this National Policy Statement to provide or realise development capacity	▪ The resultant built form will align with anticipated outcomes of the notified SPZ-PR through the proposed provisions and the urban design guidelines. ▪ While Pegasus Mākete will result in the transition of the site from a rural residential environment to urban, the development will provide public amenity through the greenspace and events such as the farmers market. The residential activity is located in in a location that can maximise the level of amenity that is provided. ▪ The alignment of the proposal as a well-functioning urban environment has been assessed under Policy 1 above and as such the development is considered to provide benefit to the district. ▪ The economic assessment identifies that the housing capacity will assist Waimakariri district with accommodating the expected population and household growth of the district[4].
Policy 8: Local authority decisions affecting urban environments are responsive to plan changes that would add significantly to development capacity and contribute to well-functioning urban environments, even if the development capacity is: a) unanticipated by RMA planning documents; b) or out-of-sequence with planned land release.	The level of development resulting from the rezoning to SPZ-PR is not currently anticipated by RMA planning documents. However, the resultant development is considered to contribute to providing a well-functioning urban environment through: ▪ Developing a location that is located in proximity to open space, services, and employment opportunities; ▪ Developing a location that is well serviced by multiple modes of transport;

[4] Pegasus Mākete Visitor Destination Economic Assessment, Property Economics, Pg 29

	▪ Contribute to meeting projected population and household growth over the medium and long term in the Waimakariri district; ▪ Provide additional business land that will not detract from existing KACs within the Waimakariri district.

The proposed rezoning of the site from Rural Lifestyle to SPZ-PR enables Council to meet its obligations under the objectives and policies of the NPS-UD 2020, as it will provide for further tourist development and medium density housing resulting in an increase of housing and business development land availability where capacity assessments have identified that sufficient land is not available over the long term[5]. Through contributing to providing a well-functioning urban environment, the proposal will provide for the social, economic, cultural and environmental wellbeing of people, communities, and future generations.

3.2.3 Medium Density Residential Standards – Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021

The Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 introduced the Medium Density Residential Standards (**MDRS**) that are required to be incorporated into all tier 1 territorial authorities district plans by 20 August 2022. Waimakariri District Council is identified as a tier 1 territorial authority and are consequently required to incorporate the MDRS within the PDP.

WDC have notified Variation 1 on 13 August 2022 to include the rules and standards required by the MDRS. The proposed rezoning of the site to SPZ-PR will include Activity Area 7B, which is a residential area that is equivalent to the notified Medium Density Residential Zone to which the MDRS applies. The proposed amendments to the SPZ-PR chapter provisions for Activity Area 7B align with the provisions that were notified as part of Variation 1 to the PDP in order to achieve plan wide consistency in how the MDRS are applied. The intention is that any amendments to the Medium Density Residential Zone standards that arise from the Variation 1 process would be reflected in the Activity Area 7B provisions as the PDP moves through the Schedule 1 process.

3.2.4 National Environmental Standards

The current relevant National Environmental Standards (NES) are:

NES	Relevance
Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011	No site investigations have been undertaken. Any future resource consent applications will need to address the requirements of this NES.

3.3 Regional Policy Statements and Plans

3.3.1 Canterbury Regional Policy Statement 2013

Under Section 75(3)(c) of the RMA, a District Plan must give effect to the relevant or applicable regional policy statement or plan.

The Canterbury Regional Policy Statement 2013 (**CRPS**) provides an overview of the resource management issues in the Canterbury region, and the objectives, policies and methods to achieve integrated management of natural and

[5] Our Space 2018-2048, Greater Christchurch Settlement Pattern Update (July 2019)

physical resources. The methods include directions for provisions in district and regional plans. The particular provisions that are relevant to the SPZ-PR are outlined below.

Chapter 5 of the CRPS relates to land-use and infrastructure, and relevant objectives seek to ensure development is located and designed so that it functions in a way that achieves consolidated, well designed and sustainable growth in and around existing urban areas as the primary focus for accommodating the region's growth; and enables people and communities, including future generations, to provide for their social, economic and cultural well-being and health and safety (Objective 5.2.1).

Chapter 6 was inserted into the CRPS following the Canterbury earthquakes, and provides for the recovery and rebuilding of Greater Christchurch (which includes part of the Waimakariri District). Chapter 6 was amended following Plan Change 1 (PC1) which became operative in July 2021. PC1 sought to implement Our Space 2018-2048: Greater Christchurch Settlement Pattern and give effect to the NPS-UD through providing for territorial authorities within Greater Christchurch to rezone land to increase development capacity over the medium and long term within identified future development areas. In particular, PC1 sought to provide flexibility for Waimakariri District Council to consider rezoning land within the projected infrastructure boundary to meet medium term housing demands.

Of particular relevance to the requested rezoning is the following objective:

> ***Objective 6.2.1 - Recovery framework***
>
> *Recovery, rebuilding and development are enabled within Greater Christchurch through a land use and infrastructure framework that:*
> 1. *identifies priority areas for urban development within Greater Christchurch;*
> 2. *identifies Key Activity Centres which provide a focus for high quality, and, where appropriate, mixed-use development that incorporates the principles of good urban design;*
> 3. *avoids urban development outside of existing urban areas or greenfield priority areas for development, unless expressly provided for in the CRPS;*
> 4. *protects outstanding natural features and landscapes including those within the Port Hills from inappropriate subdivision, use and development;*
> 5. *protects and enhances indigenous biodiversity and public space;*
> 6. *maintains or improves the quantity and quality of water in groundwater aquifers and surface waterbodies, and quality of ambient air;*
> 7. *maintains the character and amenity of rural areas and settlements;*
> 8. *protects people from unacceptable risk from natural hazards and the effects of sea-level rise;*
> 9. *integrates strategic and other infrastructure and services with land use development;*
> 10. *achieves development that does not adversely affect the efficient operation, use, development, appropriate upgrade, and future planning of strategic infrastructure and freight hubs;*
> 11. *optimises use of existing infrastructure; and*
> 12. *provides for development opportunities on Māori Reserves in Greater Christchurch.*

The above objective seeks to enable development through a framework of priority areas for urban development and Key Activity Centres and avoids urban development outside of existing urban areas or greenfield priority areas, unless expressly provided for in the CRPS. While the site to be rezoned SPZ-PR is not identified as either a priority area, Key Activity Area (**KAC**), or future development area, a number of objectives are still relevant to (and support) the proposed rezoning in relation to the supply of land for housing and business development (see also the discussion of this objective and the NPS-UD in Section 3.4 of the report below).

Objective 6.2.2(2) seeks to provide higher density living environments including mixed use developments and a greater range of housing types, in and around KACs. The proposed rezoning of the site will provide additional land for higher density housing on the fringe of the Woodend KAC. Although the site is beyond the existing urban boundary of Woodend, the KAC is still easily accessible from the site, including through the existing public transport network.

Furthermore, Objective 6.2.6 of the CRPS also recognises that a range of other business activities in appropriate locations should be provided for. The extension of the SPZ-PR will provide for the site to be developed as a tourist destination in an appropriate location to complement Pegasus Resort through increasing the diversity of tourism activities that are provided for in this location.

In terms of supply additional business land, the requested rezoning is also not contrary to Objective 6.2.5 and supporting Policy 6.3.1 which seek to support and maintain existing centres through avoiding development that may adversely affect the function and viability of KACs. The economic assessment considered whether the requested rezoning would impact upon the function and viability of existing KACs (in this case Woodend, Rangiora and Kaiapoi) which primarily service the needs of local communities. As the rezoning of commercial land in Pegasus Mākete is to provide for commercial tourism and market activities (as opposed to basic services, day to day retail needs, community facilities etc), the assessment concluded that these would not compete with business activities in KACs[6]. The amended provisions for the SPZ-PR maintain the objectives and policies that carefully control commercial tourism activities and limit them to those directly associated with tourism activities to manage the impact upon the function and viability of existing KACs.

Chapter 9 of the CRPS relates to ecosystems and indigenous biodiversity. It is noted that the rezoning of the site is consistent with the objectives and policies in this chapter in that the development will provide for an enhancement of the biodiversity and riparian margin values of the site, while effects on water quality can be appropriately managed through management of sediment and stormwater runoff.

In terms of Chapter 11 of the CRPS relating to natural hazards, it is noted that the provisions in the PDP Natural Hazards chapter will apply to the site. The rezoning and amendments to the SPZ-PR chapter will not include specific provisions relating to natural hazards.

Overall it is considered that the rezoning of the site to SPZ-PR is generally consistent with the relevant objectives and policies above, and consequently will give effect to the CRPS.

3.4 Consideration of the CRPS and the NPS-UD 2020

There are elements of the CRPS and the NPS-UD 2020 that create tension in terms of making decisions on urban plan changes despite PC1 seeking to give effect to the NPS-UD. The CRPS contains specific policy direction in Objective 6.2.1(3) to avoid urban development outside of KACs, which could signal that the rezoning of the site to SPZ-PR as proposed is not appropriate as it has not been identified within the CRPS for urban development at this time. In contrast, the NPS-UD 2020 contains objectives and policies that are deliberately enabling of urban development and specifically anticipate scenarios where other RMA planning documents may not align with these new enabling provisions (Policy 8).

In weighing up these two policy instruments, two factors have been considered:

- The hierarchy of policy documents and the timing of when they were created; and
- Whether the outcomes anticipated under both policy documents align, even if the policy methods differ.

With respect to the first factor, the CRPS was made operative in January 2013 and the NPS-UD 2020 came into effect in August 2020, so the NPS-UD 2020 contains the most up to date thinking on urban development issues. The CRPS is also a regional policy statement whereas the NPS-UD 2020 is a national policy statement, so the NPS-UD 2020 also takes precedence in terms of the hierarchy of policy documents.

Despite PC1 and the consequential amendments to Chapter 6 of the CRPS, no criteria have yet been established for considering out-of-sequence development as required by Part 3, subpart 2, clause 3.8(3) of the NPS-UD. It is understood that a responsive planning policy is being prepared to implement this clause however in the absence of this policy the requested rezoning must therefore be considered against Policy 8 of the NPS-UD. Policy 8 directs decision makers to '*be responsive to plan changes that would add significantly to development capacity and contribute to well-functioning urban environments, even if the development capacity is (a) unanticipated by RMA planning documents; or (b) out-of-sequence with planned land release'.* This direction provides the Waimakariri District Council with a mandate to consider the rezoning of the site to SPZ-PR despite the direction in Objective 6.2.1(3) of the CRPS and the location of the site not being within a KAC. It is also noted that the introduction of the SPZ-PR into the PDP to

[6] Section 8.4, Pegasus Mākete Visitor Destination Economic Assessment, Property Economics

facilitate additional urban development around the Pegasus Resort and golf course was considered appropriate when considering the direction of Objective 6.2.1(3) and the direction of the NPS-UD.

With respect to the second factor, the desired outcomes for urban development under both policy documents is similar, with both seeking to manage out-of-sequence/ad-hoc urban development. In the aftermath of the Canterbury Earthquakes, Objective 6.2.1(3) sought to manage urban development to focus growth and recovery in priority areas while protecting Greater Christchurch's natural and physical resources. The rationale for this approach was provided in Issue 6.1.2, which recognised the impacts that out-of-sequence can have on energy use, infrastructure and rural land resources. The NPS-UD 2020 also seeks to avoid these same issues associated with poorly planned urban development, with the objectives in Section 2.1 aiming to achieve well-functioning urban environments focused around existing centres that are well planned and aligned with strategic decisions about transport, infrastructure and servicing.

The key difference between the two documents is the approach taken to achieving a well-functioning urban environment. Through Map A, the CRPS identifies the areas in which development is considered appropriate and consequently, that development outside of these areas as inappropriate to achieving the objectives of the CPRS. Policy 8 of the NPS-UD provides an alternative, directing decision makers to exercise their discretion is when considering urban development applications.

Further, under section 62(3) of the RMA, a regional policy statement must give effect to a national policy statement, which reinforces that the CRPS will need to be amended to align with the direction of the NPS-UD.

Taking the above into consideration, more weight has been placed on the NPS-UD 2020 when preparing the s32AA report. The more recent timing of the NPS-UD 2020, combined with it being a national rather than regional policy statement and the fact that it seeks similar end outcomes to the CRPS, mean it is the policy document that has been attributed the most weight when assessing the suitability of rezoning the site to SPZ-PR.

3.5 Iwi Management Plan

When preparing or changing a district plan, Section 74(2A)(a) of the RMA states that Council's must take into account any relevant planning document recognised by an iwi authority and lodged with the territorial authority, to the extent that its content has a bearing on the resource management issues of the district.

The following Iwi Management Plan is relevant to this matter:

3.5.1 Mahaanui Iwi Management Plan 2013 (IMP 2013)

As outlined in Section 2.7 above, initial engagement with Ngāi Tūāhuriri and Ngāi Tahu has been undertaken (through Mahaanui Kurataiao Ltd) as the site sits within an important cultural landscape. Consultation with the rūnanga regarding the requested rezoning is ongoing and assessment undertaken within Sections 5, 6 and 7 is subject to the identified concerns being resolved.

Mahaanui Kurataiao Ltd provided an assessment against the following matters that are relevant to the proposal:

MIMP Objectives and Policies	Response
P4.1 *To work with local authorities to ensure a consistent approach to the identification and consideration of Ngāi Tahu interests in subdivision and development activities, including:* *(a) Encouraging developers to engage with Papatipu Rūnanga in the early stages of development planning to identify potential cultural issues; including the preparation of Cultural Impact Assessment reports;*	The applicant has consulted with the rūnanga in their early stages of development. **Comment** Consultation with rūnanga regarding the proposed rezoning is ongoing. The existing Pegasus Urban Design Guidelines incorporate local stories and cultural heritage aspects that were prepared in consultation with local Rūnanga and will apply to the site.

(b) Ensuring engagement with Papatipu Rūnanga at the Plan Change stage, where plan changes are required to enable subdivision; *(c) Requiring that resource consent applications assess actual and potential effects on tāngata whenua values and associations;* *(d) Ensuring that effects on tāngata whenua values are avoided, remedied or mitigated using culturally appropriate methods;* *(e) Ensuring that subdivision consents are applied for and evaluated alongside associated land use and discharge consents.*	It is anticipated that development within the site will be consistent with the Ngāi Tahu Subdivision and Development Guidelines.
CL4.4 *The Silent File designation means that:* *(a) There must be a high level of engagement with Papatipu Rūnanga to assess whether the location, type and scale of proposed activities may adversely effect the values associated with the Silent File area;* *(b) The Papatipu Rūnanga shall have a high level of influence over decisions to grant or decline consents. Only tāngata whenua can determine whether a development will affect silent file value; and* *(c) The Papatipu Rūnanga shall not be required to justify the nature and extent of cultural effects, or why an activity may be inconsistent with values in a Silent File area. Tāngata whenua must be able to "say no" without revealing the location or status of a site.*	The proposed site is within a Silent File (017, Pekapeka). For Te Ngāi Tūāhuriri, a high level of high protection is required for the tapū nature of this site. The remains of tūpuna were interred here following the massacre at Kaiapoi. Concerns have been raised that the rural theme of the development is not considered appropriate for the sensitivity of this location. **Comment** Consultation with rūnanga regarding the proposed rezoning is ongoing, with the aim of identifying a culturally appropriate mix of activities that will occur on site that will respect the fact that the land is tapū. Further advice will also be sought from the rūnanga as to how the site can be best protected and respected during its development.
CL1.8 *To identify opportunities to enhance cultural landscapes, including but not limited to:* *(a) Restoration/enhancement of indigenous biodiversity;* *(b) Enhancing views and connections to landscape features;* *(c) Appropriate and mandated historical interpretation; (d) Setting aside appropriate areas of open space within developments; and* *(e) Use of traditional materials, design elements and artwork.*	While it is noted that indigenous biodiversity restoration is an opportunity within this proposal, the agrarian and rural theme of the proposal presents a potential conflict with manawhenua identity and the site as a cultural landscape. **Comment** Consultation with rūnanga regarding the proposed rezoning is ongoing with the purpose of identifying a culturally appropriate mix of activities that will occur on site. The Urban Design Guidelines landscape and planting guidelines provide for the reintroduction of indigenous biodiversity while further advice is also being sought on how to integrate design elements into the proposal to enhance cultural landscapes.

CL7.3 *To support the use of interpretation as a tool to recognise and provide for the relationship of Ngāi Tahu to particular places, and to incorporate Ngāi Tahu culture and values into* landscape design.	While it is appreciated that the developer is willing to incorporate a cultural narrative into the design plans to reflect manawhenua identity, development on the site will result in further disturbance of the culturally sensitive area and the relationship Ngāi Tahu have with wāhi tapu. **Comment** Consultation with rūnanga regarding the proposed rezoning is ongoing. Further advice is being sought regarding how best to respond to disturbance of a culturally sensitive site and management options that can be implemented during site development activities.
P6.1 *To require on-site solutions to stormwater management in all new urban, commercial, industrial and rural developments (zero stormwater discharge off site) based on a multi-tiered approach to stormwater management:* *(b) Reducing volume entering system - implementing measures that reduce the volume of stormwater requiring treatment (e.g. rainwater collection tanks);* *(d) Discharge to land-based methods, including swales, stormwater basins, retention basins, and constructed wet ponds and wetlands (environmental infrastructure), using appropriate native plant species, recognising the ability of particular species to absorb water and filter waste.*	Whilst there are appropriate stormwater management controls in place, further development could increase pressures on the system and the waterway flowing through the site. **Comment** The infrastructure servicing report has identified that stormwater treatment methodologies are available to ensure that runoff can be treated appropriately prior to discharge to Taranaki Stream. The recommended treatment options mimic natural processes and include options to reduce runoff as far as practicable.

3.6 Any relevant management plans and strategies

3.6.1 The Waimakariri 2048 District Development Strategy

The Waimakariri 2048 District Development Strategy (dated July 2018) 'Our District, Our Future' is relevant to the requested rezoning as it guides the District's anticipated residential and business growth over the next 30 years.

The strategy forms part of the ongoing process to ensure that growth management, within the Waimakariri and Greater Christchurch context, is current and forward looking, and centres around seven key strategic themes being the environment, growing communities, rural areas and small settlements, connections, economy, centres and community spaces and places. It is designed to act as a broad statement of direction to inform more detailed decision-making.

A key strategic theme, growing communities', seeks to achieve consolidated and integrated urban growth that provides housing choice. The requested rezoning will provide additional medium density housing on the fringes of the existing SPZ-PR. While it is acknowledged that the provision of this additional housing capacity is outside of the established boundaries of existing urban areas, the site is located on the rapidly evolving urban fringe of Ravenswood and the Woodend/Pegasus KAC. Consequently, it is considered that this housing will be well serviced by existing infrastructure, services, and transport options whilst also being able to integrate with the amenities provided in

Ravenswood and the tourism activities in the SPZ-PR. The resultant housing typologies will assist with providing greater housing choice within the district in a location that provides a high level of amenity.

Protecting the character and productivity of the rural zone is also identified within the strategy as a key strategic aim. Although the site is proposed to be Rural Lifestyle Zone in the PDP, this theme is of limited relevance to the proposal as the site (an undersized rural lifestyle allotment already isolated from adjoining rural land) is surrounded by rural residential activities and the Pegasus Resort Golf Course and does not form part of an area with strong rural character or productivity characteristics.

A key aim of the strategy is to provide employment and business opportunities that enhance District self-sufficiency. The economic assessment identified that some of the key economic benefits of the proposal arise from increased employment opportunities in the construction, retail and service sectors of the District. Furthermore, the resultant development of the site was identified within the economic assessment as diversifying the Districts economic composition, benefiting local producers through providing direct retail opportunities to consumers, and improving accommodation utilisation through attracting additional overnight tourists.

The strategy seeks to ensure the district has vibrant and distinct town centres. The District currently contains a number of centres of differing size and function. These include the KACs of Rangiora and Kaiapoi as well as the Oxford and Woodend town centres. The effect of the requested rezoning on these KACs has been carefully considered within the proposal and the economic assessment. The economic assessment concluded that focusing Activity Area 8 on commercial tourism opportunities means that the rezoning will not undermine the role and function of other KACs, noting that the tourism offerings will not compete with more service-oriented business activities within those KACs.

Overall, the requested rezoning of the site is considered to be consistent with the visions and strategic objectives of the strategy.

3.6.2 Our Space 2018-2048, Greater Christchurch Settlement Pattern Update (July 2019)

Our Space 2018-2048: Greater Christchurch Settlement Pattern Update outlines land use and development proposals to ensure there is sufficient development capacity for housing and business growth across Greater Christchurch to 2048.

This Settlement Pattern Update is a review of the land use planning framework for Greater Christchurch. It outlines the Greater Christchurch Partnership's proposed settlement pattern and strategic planning framework to meet land use and infrastructure needs over the medium (next 10 years) and long term (10 to 30 years) periods.

This report notes that "*Significant business growth is projected in Greater Christchurch over the next 30 years... the tourism sector is also expected to contribute to a significant proportion of the growth over the period (accommodation contributing 16% of growth)*". The report identifies projected shortfalls in housing development capacity within the Waimakariri District.

PC1 to the Canterbury Regional Policy Statement sought to implement this development strategy by identifying Future Development Areas (FDAs) to provide additional housing capacity and including associated provisions to enable WDC to consider rezoning areas to provide additional housing capacity. PC1 also sought to implement this development strategy through ensuring that sufficient business land is provided throughout the region. An assessment against PC1 has been provided above, however, for completeness the requested rezoning is considered to be consistent with the overall direction provided with the Our Space Strategy as it will provide additional housing and commercial capacity that will specifically cater for tourism focused activities.

3.7 Any plans of adjacent or other territorial authorities

The District Council is required to have regard to the extent to which the district plan needs to be consistent with the plans and proposed plans of adjacent territorial authorities under Section 74(2)(c) of the RMA.

As the requested rezoning relates to a notified special purpose zone in the PDP that has no interactions with other zones or areas outside of the Waimakariri District, consistency is not required with plans of adjacent or other territorial authorities.

4 PROPOSED AMENDMENTS

To provide for the rezoning of the site to SPZ-PR, a number of amendments to the provisions of the notified PDP are proposed. The proposed changes are set out in an updated version of the provisions for the Special Purpose (Pegasus Resort) Zone. These provisions should be referred to in conjunction with this evaluation report. The scope of the requested rezoning is outlined in Section 2.1 above and the proposed provisions are summarised below.

4.1 Updated Objectives and Policies

The updates to the objective and policy framework for the SPZ-PR maintain the direction of the existing notified provisions while also providing for additional tourism and medium density activities. The proposed amendments are minimal and relate to providing for additional tourism focused and residential activities within Pegasus Mākete. The requested rezoning aligns with the notified objective and policy framework development for the tourism focused SPZ-PR.

4.2 Updated Methods

A combination of rules, standards, assessment matters and definitions are proposed to manage the new activities proposed for Pegasus Mākete, in addition to the existing provisions within the notified SPZ-PR Chapter. The proposed updates to the methods for SPZ-PR are summarised below:

- Inclusion of two new activity areas:
  - Activity Area 7B – Medium Density Residential;
  - Activity Area 8 – Mākete Village.
- New activity rules within the SPZ-PR to provide for the range of land use activities envisioned for Pegasus Mākete, including Mākete Tourism and residential activities;
- New built form standards that are linked to the ODP and align with the MDRS notified in Variation 1 to the PDP;
- Inclusion of a new definition for Mākete Tourism activities (SPZ-PR specific definition);

4.2.1 Other Methods

While the majority of specific matters relating to the requested rezoning of the site are dealt with under the proposed amendments to the SPZ-PR provisions, some other provisions in Part 2 of the PDP – District-wide matters also apply to the site and require changes to accommodate the anticipated mix of commercial tourism and residential activities.

The following amendments are required to support development within Pegasus Mākete:

- Subdivision Chapter – Rule SUB-S1 and Table SUB-1 relating to minimum allotment sizes for Activity Areas 7B and 8.

5 SCALE AND SIGNIFICANCE EVALUATION

An assessment of the overall scale and significance of the proposal and its effects has been undertaken using a ranking approach (high, medium, low), and has been presented in Table 1 below.

Table 1: Evaluation of Scale and Significance

	Low	Medium	High
Degree of change from the Operative Plan		✓	
The s32 analysis for the SPZ-PR considered the degree of the changes from the operative plan to be 'medium' as the proposed zone is for a new activity that is occurring across a split zoning that doesn't allow for the proposed redevelopment of the Pegasus Resort site. The proposed zone extension and amendments to the			

objectives, methods and policies to include the Pegasus Mākete site also represent a medium degree of change from the operative plan as the site is proposed to be zoned RLZ in the PDP.			
Effects on matters of national importance		✓	
The site does not contain areas of significant indigenous vegetation but does contain habitats for macroinvertebrates and native fish in the Taranaki Stream. The proposed development of Pegasus Mākete seeks to restore and enhance the values of the stream and adjacent riparian area and any effects associated with the temporary earthworks and future stormwater discharges will be appropriately managed. The site is of significance to mana whenua as a culturally significant landscape. Engagement with mana whenua is ongoing to ensure that identified concerns are addressed to enable the cultural significance of the site to be recognised. On the basis that engagement with mana whenua results can address the cultural significance of the site, the scale and significance of effects on matters of national importance are considered medium.			
Scale of effects geographically (local, district wide, regional, national)	✓		
The s32 analysis of the notified SPZ-PR considered that the scale of geographical effects from the rezoning to be 'medium', primarily on the basis that the Pegasus Resort development represents the biggest single visitor accommodation provider in the district. The proposed zone extension, including the provision of medium density residential housing and a range of Mākete tourism activities, represents a low change within the context of the wider rezoning proposal.			
Scale of effects on people (how many will be affected – single landowners, multiple landowners, neighbourhoods, the public generally, future generations?)	✓		
The proposed zone extension will be relatively prominent to the public and surrounding landowners given its corner location and proximity to State Highway 1. The development of this site and associated level of effect will be noticeable, given it is currently a rural lifestyle block, but the change will be carefully managed using the proposed rule framework and Urban Design Guidelines, which clearly outline the scale and nature of anticipated activities and requires that future activities to be developed in a way that reduces potential adverse effects on surrounding areas. This includes appropriate landscape treatment where adjacent to State Highway 1. As such, the scale of effects on people is considered to be of low significance.			
Scale of effects on those with specific interests, e.g., Mana Whenua, industry groups		✓	
The site and wider area are of cultural significance to Te Ngāi Tūāhuriri and Ngāi Tahu. Engagement with mana whenua is ongoing to ensure cultural values are appropriately provided for and protected within the proposal. For this reason and subject to identified concerns being addressed to reflect the cultural significance of the site, the scale of effects on Mana Whenua is considered medium. There are no other groups with specific interests.			
Degree of policy risk – does it involve effects that have been considered implicitly or explicitly by higher order documents? Does it involve effects addressed by other standards/commonly accepted best practice? Is it consistent, inconsistent or contrary to those?	✓		

As discussed in Section 3, the proposed zoning extension is considered to be generally consistent with the relevant statutory documents, including the NPS-UD and the CRPS. Although the site contains Class 2 soils (LUC 2), the site was zoned RLZ in the PDP, which was notified prior to 17 October 2022. This means that the site is excluded from the transitional definition of highly productive land under Clause 3.5(7) of the NPS-HPL. As such the degree of policy risk is considered to be low.			
Likelihood of increased costs or restrictions on individuals, communities or businesses	✓		
The likelihood of increased costs, restrictions on individuals, communities or businesses is considered to be low given that the provisions in the SPZ-PR that are being requested for the site are more enabling than the RLZ zoning that was notified in the PDP, therefore costs and restrictions on the owners of the site will not increase.			
Overall		✓	
The scale and significance of the proposal and its effects are considered low-medium overall, subject to further engagement with mana whenua.			

6 EVALUATION OF EXISTING AND PROPOSED OBJECTIVES

The level of detail undertaken for the evaluation of the proposed objectives has been determined by the preceding scale and significance assessment and is set out in Table 2.

Table 2: Evaluation of Existing Objectives

Existing Objectives – Status quo	Appropriateness to achieve the purpose of the Resource Management Act 1991
Objective 14.1.1 Maintain and enhance both rural production and the rural character of the Rural Zones, which is characterised by: a) the dominant effect of paddocks, trees, natural features, and agricultural, pastoral or horticultural activities; b) separation between dwellinghouses to maintain privacy and a sense of openness; c) a dwellinghouse clustered with ancillary buildings and structures on the same site; d) farm buildings and structures close to lot boundaries including roads; e) generally quiet – but with some significant intermittent and/or seasonal noise from farming activities; f) clean air – but with some significant short term and/or seasonal smells associated with farming activities; and g) limited signage in the Rural Zone.	**Relevance:** The existing objectives have some relevance as the current state of the site is partially reflective of what is sought by this objective (e.g. predominantly paddock and trees and reasonable separation between dwellings on surrounding sites). However, the surrounding environment is transitioning to a more urban like environment with a greater density of residential dwellings and commercial services provided in Ravenswood on the western side of SH1 and tourism activities anticipated at the Pegasus Resort to the east. This transition on the urban fringe has also had a subsequent effect on the level of urban infrastructure (footpaths, lighting etc), the type and level of noise, air quality and signage present in the surrounding environment.
	Reasonableness: The existing objectives are considered reasonable where the land remains in rural production but they do not support the range of commercial tourism and medium density residential activities anticipated for the site. As such, the existing objectives are unreasonable when considered against the proposed development of Pegasus Mākete.
	Achievability: As referred to above, the current state of the site and the surrounding environment transitioning to an urban environment is inconsistent with the intent of this objective and it would not achieve the level of development anticipated for Pegasus Mākete.

Proposed/Amended Objectives (insertions underline, deletions ~~struck out~~)	Appropriateness to achieve the purpose of the RMA
SPZ – PR – O1 Tourist destination The establishment of regionally significant tourist destination based around an 18-hole international championship golf course. This provides for ~~with existing large residential site, incorporating~~ hotel and visitor accommodation, spa/wellness and hot pool complex, golf education and country club facilities, low and medium density residential activities and Mākete tourism activities with limited small-scale commercial activities and associated ancillary activities. **SPZ – PR – O2 Design components** The development of tourism facilities centred around a spa village and tourism residential activities centred on a Mākete Village within a framework of open space and recreation facilities, that reflect the local open space, recreational, landscape and visual amenity values and achieve urban design excellence consistent with the PR Design Guidelines.	**Relevance:** The proposed objectives provide for the development of Pegasus Mākete in addition to the wider Pegasus Resort site subject to proposed implementing policies, rules and methods such as urban design guidelines. The objectives provide a clear and specific framework for the development of Pegasus Mākete, including the provision of Mākete tourism activities and medium density residential activities. **Reasonableness:** The objectives are considered reasonable as they allow for the requested development of Pegasus Mākete subject to specific design considerations imposed through rules and urban design guidelines. **Achievability:** The proposed objectives will have a high level of achievability as they clearly set out the range and scale of proposed activities and are supported by appropriate policies and methods.

Summary – Existing and Proposed Objectives
The proposed objectives better provide for the establishment of Pegasus Mākete, while requiring the development to be developed in accordance with policies, rules and urban design guidelines that will require a high quality urban environment. The existing provisions are not enabling of the development, nor will they facilitate the anticipated economic benefits from the development of Pegasus Mākete. If a similar development was progressed under the existing plan provisions, there would be no guidance available for decision makers regarding the design or location of Mākete tourism activities, or the nature and scale of activities deemed appropriate for the area. Therefore, it is considered that the proposed provisions are the most appropriate and effective means of providing a high-quality urban development that complements both the neighbouring Pegasus Resort development and the adjacent urban centres at Ravenswood and Woodend, while responding and providing opportunities to enhance the environmental and cultural values of the site. This will better achieve the purpose of the RMA in terms of sustainably managing natural and physical resources compared to the notified RLZ.

7 EVALUATION OF PROPOSED POLICIES AND METHODS

The level of detail undertaken for the evaluation of the proposed policies and methods has been determined by the preceding scale and significance assessment, which noted the significance of the proposal as being low to medium. Policies and methods have been evaluated as a package, as it is the combination of proposed provisions working together that achieve the proposed objectives. This evaluation is set out in Table 3 below.

Table 3: Evaluation of Proposed Policies and Methods

Policy and method options	**Benefits** environmental, economic, social and cultural effects anticipated,	**Costs** environmental, economic, social and cultural effects anticipated,	**Efficiency and Effectiveness**	**Risk of acting / not acting** if there is uncertain or insufficient information about the subject matter of the provisions
Option A: Proposed Approach (a) Site rezoned to SPZ(PR). (b) Site included in ODP with new Activity Areas (7B and 8) (c) Policies and methods amended to enable specific development outcomes on this site, including the use of amendments to the Pegasus design guidelines.	**Environmental:** (a) High quality urban environment outcomes from development undertaken in accordance with the proposed amendments to the Pegasus design guidelines that will visually integrate the site with Pegasus Resort and the surrounding environment. (b) The amendments to the Pegasus design guidelines will enable development that is environmentally sustainable and innovative, to create places that protect and enhance natural features, water quality and ecosystems, with reduced energy use and waste production. (c) Ecological and riparian enhancement through the removal and replacement of existing exotic and weed species with indigenous	**Environmental:** (a) More 'intensive' land use that will detract from the level of open space on the site and alter the existing rural character. (b) Earthworks and construction activities generating temporary adverse effects including potential sediment discharges into the Taranaki Stream and surrounding environment. (c) Establishment of stream crossings, stormwater infrastructure and new buildings or structures may adversely affect stream water quality and hydrology. (d) Loss of rural land that could be utilised for rural production activities (however the size of the existing land parcel and lack of opportunities to	(a) The extension of the SPZ(PR) zone and ODP to cover the Pegasus Mākete site is considered the most effective and efficient way of providing a suitable framework for urban development given the proximity of the site to the adjacent Pegasus Resort and the similar aim of developing commercial tourism activities. (b) The introduction of Activity Areas 7B and 8 recognises that the existing provisions of the RLZ will not be effective in achieving the outcomes sought in Pegasus Mākete. The amendments to the required policies and methods will be effective in enabling the proposed range of activities at an appropriate form and scale for this site. (c) Similarly, the proposed amendments to the Pegasus design guidelines is an effective	(a) It is considered that there is sufficient information to understand the environmental and economical context of the proposal and the implications of introducing urban design guidelines and built form standards to drive the location, nature and standard of development on the site.

	species and ongoing management and protection of the Taranaki Stream.	amalgamate or otherwise use the land for rural activities restricts options to use the land productively).	way of achieving high quality design outcomes while recognising that alternative design responses are required compared to Pegasus Resort.	
	Economic: (a) Improve the efficient use of the site by providing residential and commercial tourism activities in an area that is subject to significant transformation and urban growth, which will complement both the adjacent tourism activities at Pegasus Resort and support the nearby local centres of Ravenswood, Pegasus and Woodend. (b) Will enhance the profile of the Waimakariri district as both a tourism destination and an attractive residential location by attracting residents and tourists both from within and outside the Canterbury Region that will generate economic growth within the district. (c) Will generate employment opportunities in construction, retail, tourism and services. (d) Will diversify the district's existing business through the	**Economic:** (a) The site contains productive soils (Land Use Capability 2) so there will be small loss in rural production potential. However, the small site size (3.05ha) makes it difficult to use the land for rural production activities, it is not currently in productive use and has limited options for amalgamating with other rural sites to make use of the productive soils. Further, the land is exempt from the transitional definition of highly productive land in the NPS-HPL so is not required to be retained for land-based primary production activities.		

	provision of bespoke tourism activities. (e) Support local farmers/growers and consumers and will reduce their costs in terms of transportation, handling, refrigeration and storage (f) Will support healthier communities as farmers markets will provide healthy food options and educational opportunities to consumers.			
	Social: (a) Provides a 'sense of place' where residents and tourists can interact and socialise. (b) Provides high quality additional housing stock. The medium density housing also provides to residents in an area of varied densities and housing typologies. (c) Enables a high-quality design outcome that aligns well with the developing urban fringe of the surrounding area.	**Social:** (a) Perceived reduction in the level of open space and visual amenity for people transiting along SH1 and five residential properties located at Mapleham Drive (66, 68, 70 and 74), and 10 Burntwood Lane when compared to the existing site.		
	Cultural:	**Cultural:**		

	(a) Recognises the cultural significance of the site of the surrounding area through specific building and site design which are included in the notified Pegasus design guidelines. (b) Design responses that respond to the cultural and heritage character of the area are specifically encouraged in Policy SPZ(PR)-P5. (c) Mākete tourism definition provides for a range of activities that could recognise and provide for cultural significance of the site.	(a) Potential for degradation of cultural landscape values if these values are not adequately provided for within resultant activities and built form. (b) Potential discovery and disturbance of cultural features during earthworks. Accidental discovery protocols will be implemented. (c) Development and earthworks that reduces the level of protection associated with the high cultural sensitivity of the site (d) Temporary sediment and discharge effects into the Taranaki Stream associated with earthworks and construction activities. These effects will be managed as much as practicable through standard mitigation measures.		

Opportunities for economic growth and employment
The proposed tourism, farmers market / educational focused developments at Pegasus Mākete would bring economic benefits to the Waimakariri district, support the diversification the district's tourist destination strategy and growth of Waimakariri's tourism economy. It would be a niche destination for tourist and locals as part of the wider tourism destination of Pegasus Resort and will not undermine (rather complement) the role, function and vitality of other KACs, resulting in an overall positive economic outcome for the district.

Quantification

Section 32(2)(b) requires that, if practicable, the benefits and costs of a proposal are quantified. Given the assessment of the scale and significance of the proposed changes as being low-medium, it is considered that quantifying costs and benefits would add significant time and cost to the s32AA evaluation processes. The evaluation in this report identifies where there may be additional cost(s), however the exact quantification of the benefits and costs discussed was not considered necessary, beneficial or practicable. Further, there are some benefits and costs of the proposal that are intangible and it is inappropriate in most cases to assign a monetary value to these, e.g. some cultural, ecological and social costs and benefits.

Options less appropriate to achieve the objective

Policy and method options	**Benefits** environmental, economic, social and cultural effects anticipated	**Costs** environmental, economic, social and cultural effects anticipated,	**Efficiency and Effectiveness**	**Risk of acting / not acting** if there is uncertain or insufficient information about the subject matter of the provisions
Option B: Status Quo (a) Retain Rural Lifestyle zoning (RLZ)	**Environmental:** (a) Retention of low density rural residential living enabled under the proposed plan provisions that would likely result in a less intensive land use compared to what is proposed. (b) Environmental benefits associated with retaining the land as largely pervious pasture e.g. reduced stormwater run-off and sedimentation risk. (c) Environmental effects of medium density residential development and commercial tourism activities are able to be assessed on a case-by-case basis through the consenting	**Environmental:** (a) Potential impacts on water quality of the Taranaki Stream if the site is utilised for land-based primary production, involving waste run off from livestock or intensive horticultural activities. (b) Missed opportunity to use the Pegasus Mākete development as the catalyst to restore the Taranaki Stream and surrounding riparian area to improve indigenous biodiversity and water quality outcomes – with RLZ zoning the current	(a) This option is not effective as these provisions are not fit for purpose to support the development of Pegasus Mākete. (b) The proposed RLZ provisions enable 'rural tourism' activities but not of the type or intensity as sought in Pegasus Mākete. (c) Consent applications for medium density residential development and commercial tourism activities would likely be declined on the basis that they would set an unwanted precedent for development in the wider RLZ. (d) It is not efficient to require a resource consent process for all	There is sufficient information to not act on this option.

	process, decreasing the risk of adverse environmental effects being generated by permitted activities.	degraded state of the stream is unlikely to improve.	aspects of the Pegasus Mākete development (which would occur if the site was zoned RLZ) as it is reasonable for a number of the proposed activities to be permitted, provided they align with the amended ODP and meet the proposed permitted activity standards in the SPZ-PR.	
	Economic: (a) The landowner would be able to use the site for a limited amount of land-based primary production or other more intensive primary production activity as 3.05ha can support some level of rural production.	**Economic:** (a) Opportunity cost of less economic growth and job creation compared to the economic potential of Pegasus Mākete. (b) Missed opportunity to leverage off the development of the adjacent Pegasus Resort and create a tourism hub for the Waimakariri district that will be economically beneficial to the owners of both developments.		
	Social: (a) Would support the continuation of the existing rural lifestyle activities on the site in line with the existing expectations of surrounding landowners.	**Social:** (a) Opportunity cost resulting from fewer residents and tourists to support local communities nearby (Woodend, Ravenswood).		

	Cultural: (a) Retention of cultural values associated with the existing level of open space and the Taranaki Stream. (b) No land disturbance associated with Pegasus Mākete on a tāpu site; (c) No change in land use that could compromise cultural landscape values.	**Cultural:** (a) Loss of opportunity to incorporate cultural values in site design, tourism and education activities.		
Opportunities for economic growth and employment				
This option provides limited opportunities for economic growth and employment as the RLZ enables Home Businesses, Rural Produce Retail and Rural Tourism activities. However, the extent of these opportunities is likely to be significantly less than what could be achieved compared to Option A.				
Policy and method options	**Benefits** environmental, economic, social and cultural effects anticipated,	**Costs** environmental, economic, social and cultural effects anticipated,	**Efficiency and Effectiveness**	**Risk of acting / not acting** if there is uncertain or insufficient information about the subject matter of the provisions
Option C: Alternative zoning (a) Site rezoned to Mixed Use Zone (MUZ)	**Environmental:** (a) Enables a range of residential and retail activities that promotes a high standard of amenity. (b) Potential for some environmental enhancement of the Taranaki Stream and	**Environmental:** (a) Enables an additional range of activities (e.g. offices, drive through restaurants, public transport facilities) that may generate unanticipated and adverse environmental outcomes.	(a) The MUZ provisions have been developed to enable certain activities of a particular scale and intensity in Kaiapoi, as this is the only part of the district that is proposed to be zoned MUZ. It is not effective to use provisions that have been designed to	It is considered that there is sufficient information to not act on this approach due to its relative inefficiency and ineffectiveness in achieving the proposal objective compared to Option A.

	surrounding riparian area but this is not required by the MUZ and is less likely to occur than under Option A.	(b) Lack of certainty of the scale and intensity of activities and the level of built form compared to Option A which includes provisions and locations for specific activities and controls on built form.	address urban development issues in one of the most densely populated parts of the district to enable a different type of urban development (particularly commercial tourism activities) on a much smaller site. (b) This option is not effective in providing the range of proposed activities and achieving design outcomes specific to this environmental setting.	
	Economic: (a) The provisions enable a range of commercial activities that will generate additional economic growth and employment opportunities.	**Economic:** (a) Risk that the open-ended direction of the MUZ with respect to the range of commercial activities that could establish will undermine the function and viability of neighbouring KAC, which would be inconsistent with the CRPS.		
	Social: (a) The provisions enable residential activities that supplement housing stock that would be subject to built form standards and urban design consideration.	**Social:** (a) Less community certainty as to where activities will locate in relation to existing residential areas and main roads, resulting in increased risk of reverse sensitivity effects.		
	Cultural: None	**Cultural:** (a) With no specific recognition for cultural values in the		

		objectives and policies, the MUZ provisions may enable activities that do not respond to the cultural significance of the site. (b) Would enable a greater intensity of development that will reduce the level of cultural protection.		
Opportunities for economic growth and employment				
Similar opportunities for economic growth and employment compared to Option A, however less certainty on the type and scale of businesses anticipated and therefore considered to be a less effective response.				
Summary – Evaluation of Proposed Policies and Methods				
The proposed policies and methods (Option A) are the most appropriate option to achieve the proposed objectives for Pegasus Mākete and, as such, Option A is the preferred option.				

8 SUMMARY

This evaluation has been undertaken in accordance with section 32AA of the RMA and at a level of detail that corresponds to the scale and significance of the changes, being low to medium. The evaluation demonstrates that the proposed approach is the most appropriate option for the following reasons:

- The proposed extension of the SPZ-PR supports additional tourism growth and medium density housing that is consistent with the National Planning Standards, which requires consideration to be given to adoption of a special purpose zone where the proposed land use activities or anticipated outcomes of the zoning response are significant to the district or region, are impractical to manage through another zone response or combination of spatial layers.
- The zone is underpinned with objectives, policies, rules, standards, definitions and assessment matters that seek to:
    - enable the development of bespoke and cultural tourist activities that in turn support employment opportunities and economic growth within the Waimakariri District;
    - manage adverse effects on the environment through an effective policy framework, combined with the built form standards and design guidelines that seek to ensure that the development will achieve a high aesthetic quality and will visually integrate with the receiving environment;
    - ensure that proposed commercial activities do not create unintended adverse effects or challenge the health and vitality of the District's three existing and emerging KACs and the Pegasus town centre.
- The proposed provisions reflect current best practice elsewhere, particularly in the adoption of an ODP that provides for an effective response to the management of resort zone outcomes that are within a confined development area;
- The proposed provisions are consistent with national and regional policy direction;
- The proposed provisions will better achieve Part 2 of the RMA compared to the notified RLZ zoning of the site.

Overall, it is considered that the extension of the SPZ-PR over the site and associated supporting provisions are the most appropriate way to manage future development on the site, given that the benefits outweigh the costs, and there are considerable efficiencies to be gained from adopting the proposed provisions. The risks of acting are also clearly identifiable and limited in their extent.

Appendix A:

Economic Assessment

PROPERTY ECONOMICS

PEGASUS MĀKETE VISITOR DESTINATION ECONOMIC ASSESSMENT (PHASE 1)

Project No: 52153

Date: November 2022

Client: DEXIN Investments Ltd

W: www.propertyeconomics.co.nz E: tim@propertyeconomics.co.nz P: 09 479 9311 PO: Box 315596, Silverdale 0944

SCHEDULE

Code	Date	Information / Comments	Project Leader
52153.7	November 2022	Report	Tim Heath / Phil Osborne

DISCLAIMER

This document has been completed, and services rendered at the request of, and for the purposes of DEXIN Investments Ltd only.

Property Economics has taken every care to ensure the correctness and reliability of all the information, forecasts and opinions contained in this report. All data utilised in this report has been obtained by what Property Economics consider to be credible sources, and Property Economics has no reason to doubt its accuracy.

Property Economics shall not be liable for any adverse consequences of the client's decisions made in reliance of any report by Property Economics. It is the responsibility of all parties acting on information contained in this report to make their own enquiries to verify correctness.

COPYRIGHT

© 2022 Property Economics Limited. All rights reserved.

CONTACT DETAILS

Tim Heath

Mob: 021 557713

Email: tim@propertyeconomics.co.nz

Web: www.propertyeconomics.co.nz

TABLE OF CONTENTS

1. INTRODUCTION 5
1.1. OBJECTIVES 5
1.2. DATA SOURCES 6
2. EXECUTIVE SUMMARY 7
3. PROPOSED DEVELOPMENT 8
4. THE PROPOSED SPECIAL PURPOSE ZONE CONTEXT 10
5. THE PPC30 DECISION CONTEXT 11
6. ECONOMIC MARKETS 14
7. POPULATION AND HOUSEHOLD GROWTH 16
8. WAIMAKARIRI KEY ACTIVITY CENTRES 19
8.1. ROLE AND FUNCTION OF KACS 19
8.2. EXTENT OF WAIMAKARIRI KACS 19
8.3. BUSINESS ACTIVITIES WITHIN RANGIORA AND KAIAPOI KACS 21
8.4. LIKELY IMPACT ON KACS 24
9. WAIMAKARIRI DISTRICT TOURISM ACTIVITIES 25
9.1. DISTRICT TOURISM SPEND RECENT TREND 25
9.2. LIKELY IMPACT ON TOURISM INDUSTRY 27
10. COSTS AND BENEFITS ANALYSIS 29
APPENDIX 1. PROPOSED OUTLINE DEVELOPMENT PLAN 31
APPENDIX 2. SUBJECT SITE IN THE CONTEXT OF SPZ(PR) 32
APPENDIX 3. RANGIORA AND KAIAPOI KAC AREAS 33
APPENDIX 4. KPI FOR WAIMAKARIRI DESTINATION APPEAL 34
APPENDIX 5. LAND USE CAPABILITY CLASS 35

LIST OF TABLES

TABLE 1 RANGIORA KAC EMPLOYMENT COUNT TREND 2000-2021 23

TABLE 2 KAIAPOI KAC EMPLOYMENT COUNT TREND 2000-2021..... 24

TABLE 3: WAIMAKARIRI DOMESTIC TECTS SPEND BY ORIGIN: YEAR ENDING IN JANUARY 27

LIST OF FIGURES

FIGURE 1 THE PROPOSED SITE IN THE CONTEXT OF OPERATIVE DISTRICT PLAN ZONES 8

FIGURE 2 EXTENT OF THE ECONOMIC MARKET AND WIDER CATCHMENTS..... 14

FIGURE 3: WAIMAKARIRI DISTRICT POPULATION AND HOUSEHOLD FORECAST 16

FIGURE 4: BROADER ECONOMIC CATCHMENT POPULATION AND HOUSEHOLD FORECAST . 17

FIGURE 5 EXTENT OF KEY ACTIVITY CENTRES WITHIN WAIMAKARIRI 20

FIGURE 6 THE EMPLOYMENT CONTRIBUTION OF KACS IN TOWNSHIPS..... 21

FIGURE 7 WAIMAKARIRI DISTRICT ANNUAL TOURISM SPEND FOR THE YEAR ENDED OCTOBER 26

1. INTRODUCTION

Property Economics has been engaged by DEXIN Investments Limited (DEXIN) to undertake an economic assessment of Pegasus and the wider Waimakariri commercial and tourist markets to assess the appropriate land use activities for the proposed Pegasus Mākete development on land situated at 1250 Main North Road, Waimakariri, on the north-eastern corner of the SH1 / Pegasus Boulevard / Bob Robertson Drive roundabout.

This report is designed to address the relevant economic areas of analysis required to assist the master planning of the Pegasus Mākete development as well as DEXIN's and Council's understanding of any economic land use matters.

1.1. OBJECTIVES

The core objectives of the report are to:

- Review background economic reporting already completed regarding the proposed SPZ(PR) zone.
- Review the Commissioners decision on PPC30 (Ravenswood Development Ltd) in relation to economic matters and outline implications on the Pegasus Mākete site and development.
- Identify the Key Activity Centre's (KACs) within Waimakariri and assess likely impact based on the commercial activity proposed in the Pegasus Mākete site.
- Outline the broad role and function in the community of each KAC.
- Delineate and map the geospatial extent of the Pegasus Mākete core economic market and the site's location within the surrounding competitor network.

- Quantify market growth in the core economic market and wider catchment to contextualise the opportunity and potential for economic impacts under the RMA.
- Assess the likely broad level impact of the proposed development on the tourist industry for Waimakariri District.
- Outline the high-level economic costs and benefits associated with the proposed Pegasus Mākete development on the subject site.

1.2. DATA SOURCES

Information has been obtained from a variety of reputable data sources and publications available to Property Economics, including:

- Annual Regional Tourism Estimates – MBIE
- Catchment Maps – Google Maps, Property Economics
- Economic Assessment of Proposed Plan Change for the Pegasus Golf Resort – Insight Economics
- Operative and Proposed District Plan – Waimakariri District Council
- Population and Household Estimates and Projections – Stats NZ
- Tourism Electronic Card Transactions (TECTs) – MBIE
- Waimakariri District Plan Private Plan Change 30 Decision - Waimakariri District Council
- Waimakariri Visitor Marketing Strategy 2020-2025 - Waimakariri District Council

2. EXECUTIVE SUMMARY

This economic report determines the proposed SPZ(PR) and proposed Pegasus Mākete development land uses for the subject site are appropriate from an economic perspective and would add economic benefits to the Waimakariri District economy.

Based on our review of an earlier economic reporting, the development context of Pegasus Mākete is found to be consistent with the objectives of the SPZ(PR) to provide a high-quality visitor resort centred around the existing (international) Pegasus Golf Course.

The recent Commissioners decision on PPC30 indicates however it would be important for DEXIN to be cognisant of the design the range, type, and scale of activities within Pegasus Mākete to ensure the current role, function, amenity and future growth potential of the existing and emerging KACs within the district are not undermined.

Based on the latest employment count data from Stats NZ, both the Rangiora and Kaiapoi KACs have not fully recovered from the Canterbury 2010-11 earthquakes, and the recent COVID-19 pandemic has slowed their recovery process. This suggests that both centres require a more extended period of time to recover from the earthquakes as well as additional private and public sector investment to facilitate their (re)development and support improving their role and function.

The ecological tourism-oriented offerings along with farmers market at Pegasus Mākete would not directly compete with or duplicate the business activities within the existing KACs. Nor would these proposed land uses undermine their role, function, vitality and future growth prospects.

Waimakariri tourism spending is primarily contributed by domestic tourists, particularly Canterbury locals and tourists from Auckland, Wellington, and West Coast. International tourists are historically not a strong component of Waimakariri tourist economy. However, this does not mean they cannot represent a growing proportion of the district's tourism economy in the future with a more diverse, authentic and attractive experience likely to provide the opportunity to appeal to more international tourists.

As such, the proposed tourism, farmers market / educational focused developments at Pegasus Mākete would be beneficial economically, support the diversification the district's tourist destination strategy and growth Waimakariri's tourism economy. It would be a niche destination for tourist and locals and part of a wider tourism destination.

On balance, Property Economics considers that the economic benefits of the proposed Pegasus Mākete development would outweigh the economic costs. Therefore, Property Economic supports the rezoning of the subject site and proposed Pegasus Mākete development from an economic perspective.

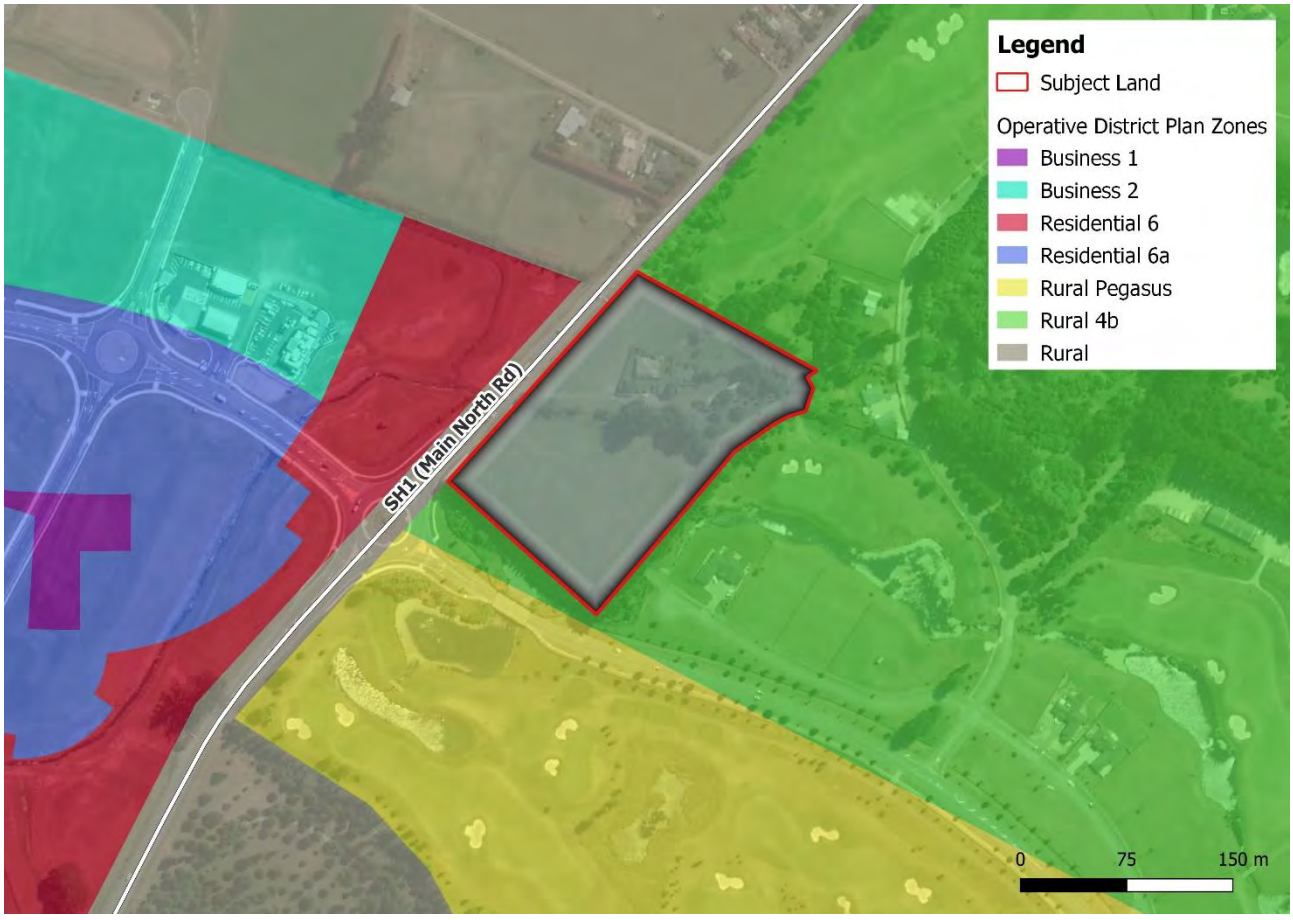
3. PROPOSED DEVELOPMENT

The subject site (or the Pegasus Mākete site) is approximately 3ha of land located at 1250 Main North Road at the eastern corner of the SH1 / Pegasus Boulevard / Bob Robertson Drive roundabout and is currently used for some grazing purposes. It is currently zoned Rural under the Waimakariri Operative District Plan (ODP) and proposed to be zoned Rural Lifestyle under the Proposed Waimakariri District Plan (PDP).

However, the PDP proposes a new zone (Resort Special Purpose Zone (SPZ(PR)) for the existing 18-hole Pegasus championship golf course in Pegasus adjacent to the subject site. DEXIN seeks to extend the proposed SPZ(PR) boundary to cover the subject site, which would enable a range of high-quality tourism activities and limited medium density residential activities.

Figure 1 shows the subject site in the context of the Waimakariri ODP Zones. The proposed outline development plan of Pegasus Mākete is attached in Appendix 1. The subject site in the context of the proposed SPZ(PR) is highlighted in Appendix 2.

FIGURE 1 THE PROPOSED SITE IN THE CONTEXT OF OPERATIVE DISTRICT PLAN ZONES



Source: Property Economics, WDC

DEXIN seeks to establish two new activity areas on the subject land to extend the boundary of the adjacent SPZ(PR), including Activity Area 7B – Medium Density Residential and Activity Area 8 - Mākete Village.

In particular, the Mākete Village is proposed to be the core area on the subject land to support the tourism activities. This contains a range of tourism-focused commercial activities including:

- Wellness activities
- Food and beverage retail
- Markets
- Artisan workshops
- Gift / souvenir shops
- Manufacturing of food or beverage goods for retail on site
- Cultural facilities
- Entertainment
- Horticulture

DEXIN considers that the proposed Pegasus Mākete will be a natural, but unique, extension of the tourism resort enabled by the SPZ(PR), with additional economic benefits generated from agglomerating a broader range of tourism-based activities across a broader SPZ(PR).

4. THE PROPOSED SPECIAL PURPOSE ZONE CONTEXT

This section identifies some of the key economic benefits associated with the proposed SPZ(PR) as background context, as outlined in an earlier Insight Economics (IE) report[1].

As defined in the Waimakariri PDP, SPZ(PR) aims to achieve two objectives:

> *SPZ(PR) – O1: Tourist Destination*
>
> *The establishment of regionally significant tourist destination based around an 18-hole international championship golf course, with existing large residential sites, incorporating hotel and visitor accommodation, spa/wellness and hot pool complex, golf education facility, and limited small-scale commercial activity and ancillary activity.*

The IE report assesses the economic impacts of construction and future tourism activity within the proposed Pegasus Resort land, as well as the possible economic impacts of a proposed Pegasus Resort on the existing 18-hole golf course on other commercial areas within Waimakariri, specifically the KACs.

The IE report found that the proposed Pegasus Resort would boost Waimakariri's tourism capacity, strengthen local employment sufficiency, and promote synergies with the emerging Ravenswood KAC without significant adverse impact on the receiving environment and centres.

In Property Economics view, the Pegasus Mākete site, being surrounded by the proposed SPZ(PR) land, has a similar landscape, accessibility, and site attributes / characteristics that would enable the creation of a broader tourism destination. Being part of the same tourism destination, the proposed Pegasus Mākete development would have the same economic market and growth potential to be developed as a high-quality tourist attraction in Pegasus.

Moreover, the proposed Pegasus Mākete development contains two new tourism activities for the area including a range of tourism endeavours and environmental education programmes. These activities will have tourism bent would complement the proposed tourism activities in the adjoining SPZ(PR) areas.

As such, incorporating the Pegasus Mākete site into the proposed SPZ(PR) is considered to assist meeting the SPZ(PR)) objectives and is unlikely to give rise to adverse economic impacts on the receiving environment.

[1] *Economic Assessment of Proposed Plan Change for the Pegasus Golf Resort – Insight Economics 2021*

5. THE PPC30 DECISION CONTEXT

This section reviews the WDC's decision on the Private Plan Change 30 (PPC30) and identifies any economic implications for DEXIN's proposed development.

The purpose of PPC30 was to enable and facilitate the development of a large (in a Waimakariri context), master-planned Town Centre located north of the existing Woodend township to support the growth of Ravenswood, its commercial centre and its Key Activity Centre (KAC) notation.

In particular, PPC30 proposed to rezone approximately 12.8ha as Business 1 (Town Centre zone) within Ravenswood and provide statutory recognition for such being noted as a KAC with the stated intent of facilitating some 35,000sqm GFA of core retail activities.

However, the principal economic issue associated with the PPC30, as identified by the Commissioners, was the underestimated retail distribution effects of the proposed development on existing centres. This issue is also a relevant matter that needs to be covered by the economic assessment of the Pegasus Mākete proposal.

The major economic concerns of PPC30 related to the retail distribution effects assessment which are summarised below. As noted by the Commissioners in Point 152 of the decision, there were multiple sources of uncertainties arising from the retail distribution effects modelling of the PPC30, including:

- *The extent of core retail GFA that might result from the proposed rezoning. There was concern that the promoted 35,500sqm could comfortably increase in size to be over 50,000sqm.*
- *The uncertainty around the High, Medium and Low population projections, particularly in light of the potential impacts of Covid-19.*
- *The use of BNZ MarketView data in combination with Household Expenditure Survey data.*
- *The ratio of sales / GFA used to estimate floorspace demand.*
- *The susceptibility of the sales outcomes at Ravenswood, and the effect on Rangiora and Kaiapoi town centre KACs, to the store type GFA mix that eventuates, compared to that modelled.*
- *The effects of increasing productivity (sales/GFA) of existing stores.*
- *The potential for existing Waimakariri stores to increase their productivity levels to at least national average levels.*
- *The extent of surplus retail capacity and the effect on future supply required.*
- *The extent to which the assumed gains in net retention will actually be achieved.*

- *The extent of the diversion of existing out-of-district expenditure from Rangiora to Ravenswood.*
- *The use of MarketView data to validate the modelling undertaken given the potential biases.*
- *The opening of the Christchurch Northern Corridor.*

As a result, the Commissioners consider that 40-50% of Ravenswood's sales would be diverted from Rangiora and Kaiapoi's Business 1 zones. This would significantly undermine the role and function of the existing KACs.

In the decision, the Commissioners conclude that:

- *The objective included within the Our Space documentation to maintain Rangiora as the primary commercial Centre in the district would not be achieved under PPC30.*
- *The health of the existing Rangiora and Kaiapoi KACs is still vulnerable following the Canterbury Earthquake sequence, and the scale proposed by PPC30 would be contrary to CRPS Objective 6.2.5 and Policy 6.3.6 (3) in not supporting, maintaining, and reinforcing Rangiora and Kaiapoi as focal points for commercial, community and service activities through the recovery period.*
- *The recovery period of earthquakes appears to run to at least 2028. Putting a lower limit on retail activity at Ravenswood until after 2028 would be one way to support and maintain the Rangiora and Kaiapoi KACs.*
- *Approving PPC30 at the proposed scale of retail activity in the new, greenfield Ravenswood retail node would have significant adverse distributional effects on both the Rangiora and Kaiapoi KACs to at least 2038.*

IMPLICATIONS ON THE PEGASUS MĀKETE DEVELOPMENT

Given the context above, there was clear concern with the Commissioners on the potential distribution effects of PPC30. This concern focused predominantly on the scale or extent of retail activity proposed in PPC30 relative to the size of the Rangiora and Kaiapoi KACs. One of the implications from this decision is to ensure that scale of retail provision within the proposed Pegasus Mākete development is appropriate and would not disrupt the disrupt the recovery of business activity within the existing KACs, nor significantly undermine their role and function as envisaged in the Waimakariri District Plan, or their future growth potential.

In light of this, the range, type, and scale of activities within Pegasus Mākete will need to be carefully considered and designed to facilitate a market targeting demand that the KACs have not specifically targeted or rely on. This requires the Pegasus Mākete development to highlight its boutique and ecological philosophy, to target domestic and international tourism, and create an environment and product complementing the land uses within the adjoining

SPZ(PR) area. Its point of difference to the KACs would be important to highlight, with no intention or propensity to duplicate a KAC role and function.

It is also important to note that the proposed Pegasus Mākete development is intrinsically different from the PPC30 proposal with significant differences in land-uses, scale, type of retail and commercial activities, economic catchment, target market and role and function of the development. Therefore, Pegasus Mākete cannot be assessed (from a planning perspective under the RMA) like the PPC30 development and needs to be assessed on its own merits.

The PPC30 submission proposed to rezone 12.8ha of land in Ravenwood to Business 1 with a 35,000sqm (potentially more) of retail activities. In contrast, the proposed Pegasus Mākete development spans around 3ha (less than one quarter the size of PPC30) with only around 1.6ha of land for commercial tourism purposes. This land is significantly smaller in scale and would be less likely to duplicate the KAC offerings.

Furthermore, the proposed activities of Pegasus Mākete have an ecological tourism and education focus. This focus is not well represented in the KACs at present and is unlikely to be given the KACs primary role and function of servicing the local populations frequently needed retail and commercial requirements such as grocery shopping, retail, healthcare and medical facilities, commercial and professional services and community facilities. These activity types are the typical dominant land uses within the Rangiora and Kaiapoi KACs.

Based on the proposed Outline Development Plan, the Pegasus Mākete also proposes to encompass a local farmers market as a visitor attraction between Christchurch and Kaikōura. This would enable local producers not of a scale to have an established retail presence to showcase and sell their product directly to the consumer. This represents a format not embedded in the local area at present meaning the Pegasus Mākete development would not directly compete with the existing and emerging KACs.

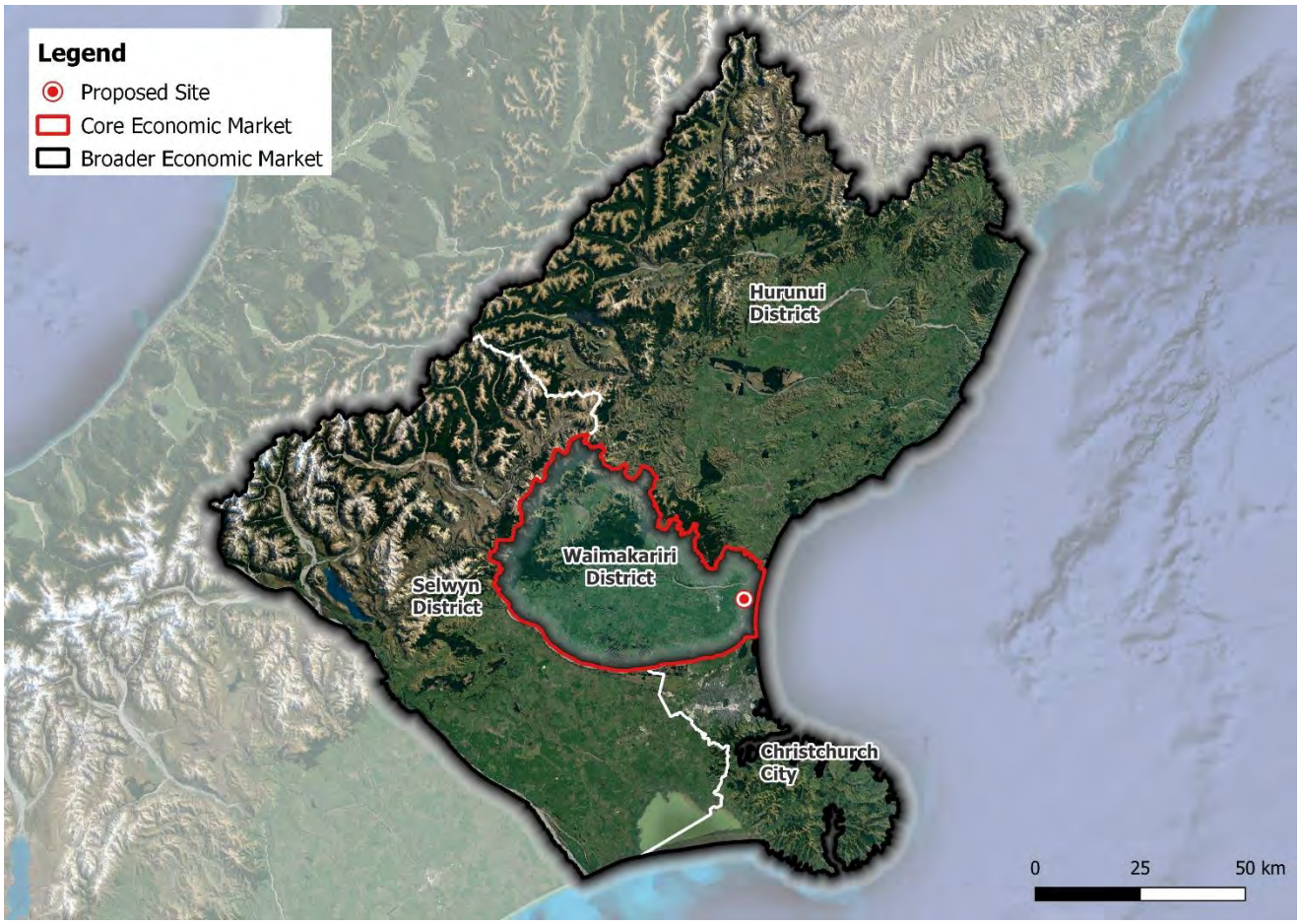
6. ECONOMIC MARKETS

To quantify the market potential of the proposed Pegasus Mākete development, it is important to delineate an area in which the proposed tourist activities on the subject land are likely to draw the majority of its frequent customers.

As shown in Figure 2 below, the Waimakariri District represents the territorial authority to which the proposed development is located and the jurisdictional area to which the Waimakariri District Council planning provisions relate. Being located on SH1, more distant markets would have more seamless accessibility and Pegasus Mākete would be better able to attract passing tourists who may not have visited otherwise if located elsewhere in the district.

As such, the Waimakariri District is the core or immediate economic market considered most relevant to the proposed development and where the most frequent customer base is likely to be derived. The wider Christchurch, Selwyn and Hurunui markets are considered more likely to be weekend visitors.

FIGURE 2 EXTENT OF THE ECONOMIC MARKET AND WIDER CATCHMENTS



Source: Google Maps, LINZ

Waimakariri District is bordered by the Waimakariri River in the south, the Puketearaki Range in the west, Pegasus Bay in the east and the Hurunui District boundary to the north. Waimakariri's main town centres (Rangiaora aned Kaiapoi) are located on the southeast side of the district.

In addition to accommodating Waimakariri's local tourism demand, a tourist attraction and destination would also serve a market beyond the district, particularly when located adjacent to the Pegasus Golf Course and supporting facilities.

Therefore, Waimakariri District and the broader economic catchments are both considered relevant markets with impacts generated by the proposed Pegasus Mākete development likely to be spread across a broad economic catchment area.

These economic markets would not represent the entire market for Pegasus Mākete as by its very nature domestic and international tourists would be derived from beyond these catchments.

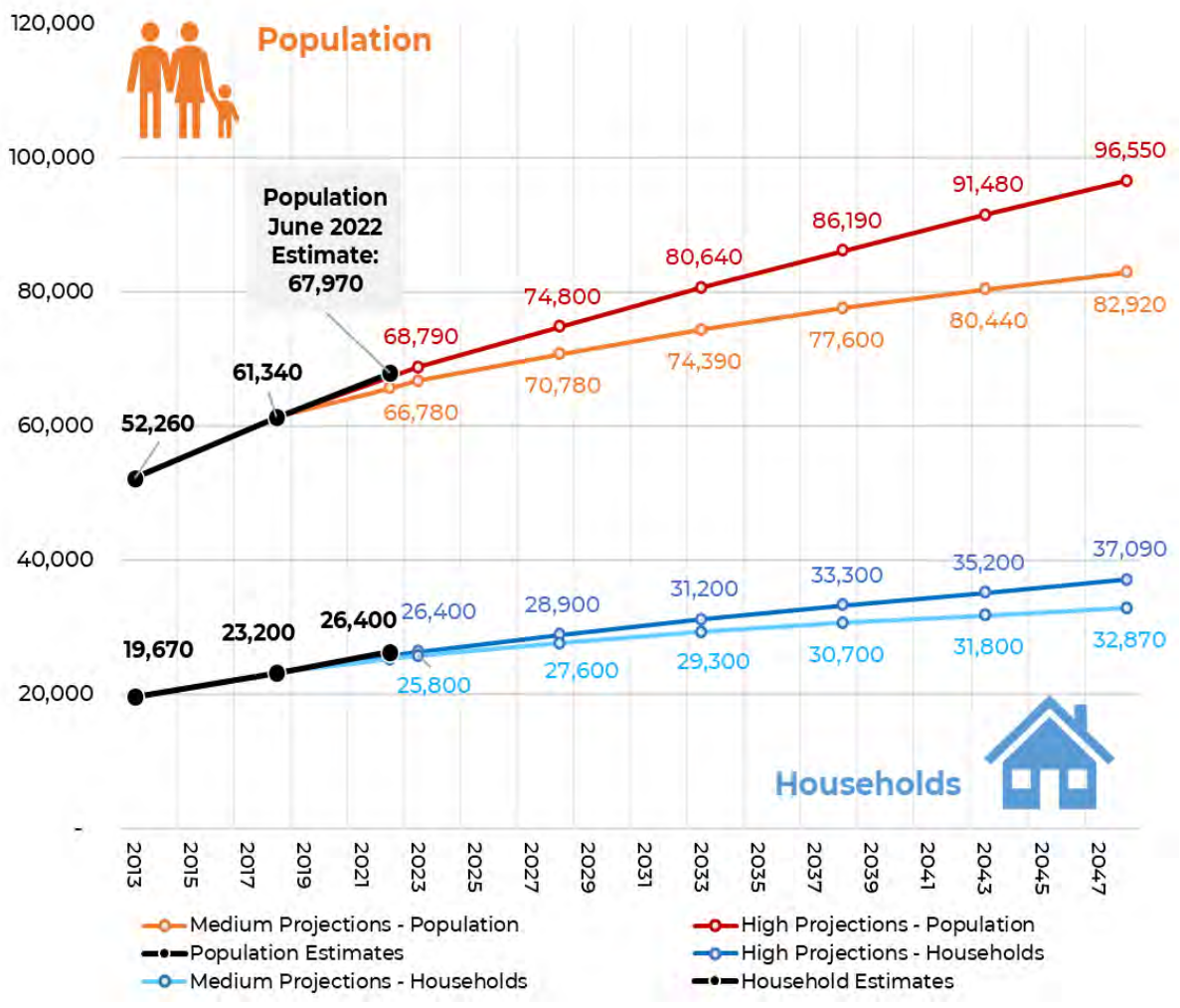
7. POPULATION AND HOUSEHOLD GROWTH

This section assesses the population and household growth projections for Waimakariri and the wider economic catchment based on the latest estimates and projections (June 2022) sourced from Stats NZ. The Medium and High population growth projection scenarios are shown as thy are considered to represent the most likely growth range given recent growth trajectories for the areas concerned.

As indicated in Figure 3, under the High growth scenario, the Waimakariri population is estimated reach around 96,550 residents by 2048. This represents 42% net growth (or an increase of 28,580 residents) from the 2022 population base.

Under the Medium growth scenario there is an estimated population of 82,920 residents by 2048. This equates to a net increase of 22% (or 14,950 residents) over the 2022 population base.

FIGURE 3: WAIMAKARIRI DISTRICT POPULATION AND HOUSEHOLD FORECAST



Source: Stats NZ

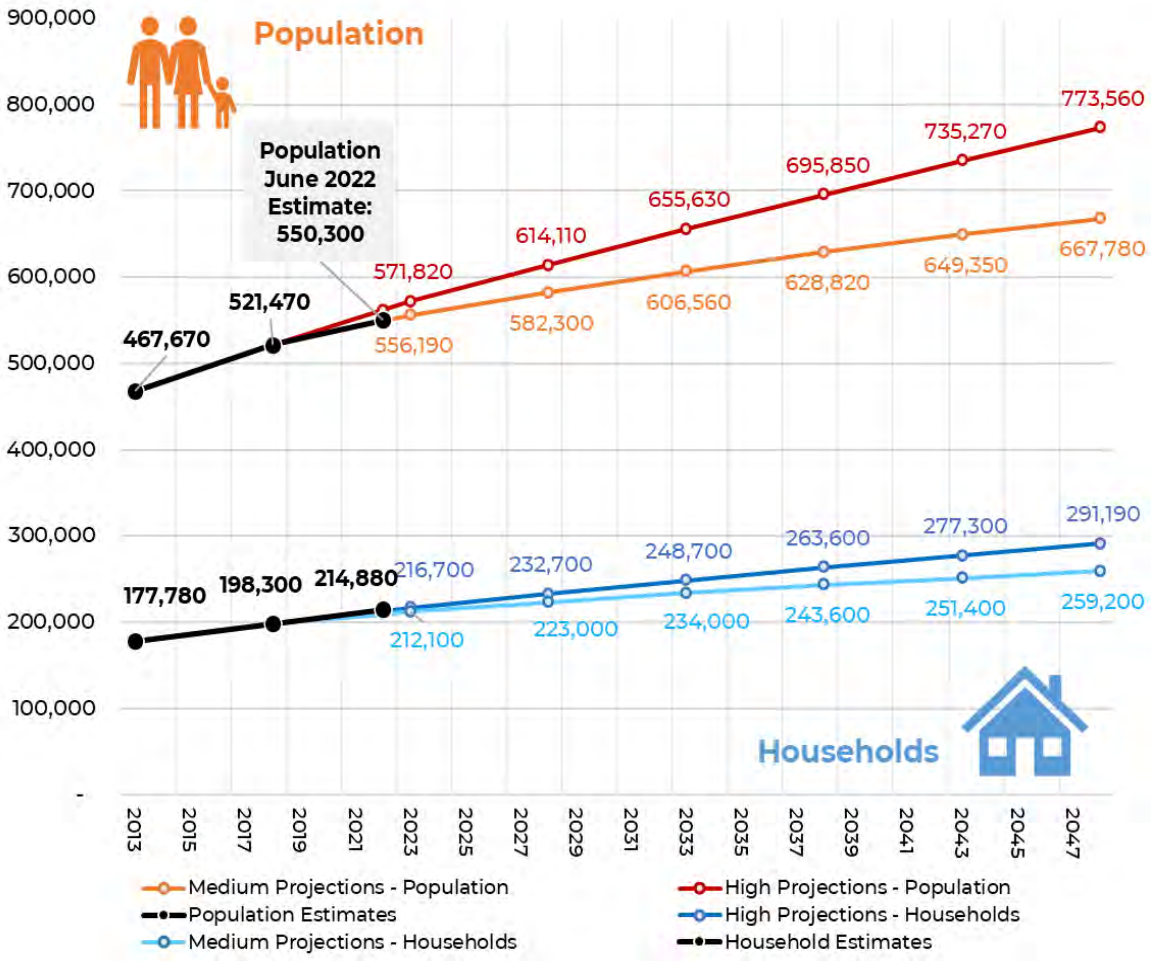
The households' projections for Waimakariri estimate faster growth proportionally than the population. By 2048, it is estimated the household base is around 37,090 and 32,870 under the High and Medium growth scenarios respectively. This represents a 40% and a 25% net increase from the 2022 base year estimate of 26,400 households.

Figure 4 further shows the population and household forecasts for the wider economic catchment (refer Figure 2) under the High and Medium growth scenarios. It indicates that the broader market currently has a population base of around 550,300 people. Net growth in these areas over the last nine years has equated to 18%.

The High scenario forecasts that the wider catchment is estimated to experience a net 41% increase from the current population base to around 773,560 people by 2048. This equates to average net population growth of 8,590 people annually over the next 26 years.

The Medium scenario estimates a wider catchment population base of 667,780 by 2048 (around 105,800 people fewer than the High scenario). This rate of growth is equivalent to average annual net growth of around4,520 people annually.

FIGURE 4: BROADER ECONOMIC CATCHMENT POPULATION AND HOUSEHOLD FORECAST



Source: Stats NZ

In terms of household growth, the High scenario would require an estimated 76,310 additional dwellings to accommodate projected growth, while under the Medium growth scenario an additional 44,320 dwellings would be required to accommodate growth, both based on one household per dwelling. Either way, both scenarios show the localised economic markets for Pegasus Mākete are projected to grow which assists offsetting any trade impacts.

8. WAIMAKARIRI KEY ACTIVITY CENTRES

8.1. ROLE AND FUNCTION OF KACS

The Land Use Recovery Plan (LURP) identifies key activity centres (KACs) in the inner and outer suburbs of Christchurch and in the main satellite towns of greater Christchurch.

According to Actions 26 of the LURP, KACs are "*commercial centres identified as focal points for employment, community activities, and the transport network; and which are suitable for more intensive mixed-use development*".

The relevant provisions for Pegasus Mākete to consider regarding KACs are below.

> *Objective 15.1.2 - Role of Key Activity Centres*
>
> *Recognise the role of the Key Activity Centres at Rangiora and Kaiapoi as significant concentrations of business activities with key transport, cultural and community infrastructure in a way that:*
>
> *a. strengthens the Business 1 Zones of Rangiora and Kaiapoi as the primary employment and civic destinations;*
>
> *b. identifies the role of local retail centres as providing convenience retail functions appropriate within the zone to which they are located;*
>
> *c. acknowledges the Business 1 Zones of Woodend, North Woodend, Pegasus and Oxford, that provide for a similar range of activities to the Key Activity Centres at a size sufficient to provide for the needs of those communities; and,*
>
> *d. provides for limited retail activities within Business 2 Zones that are supportive of the Key Activity Centres.*

Following the PPC30 decision, this report adopts the Planning Map 181 of the WDC for the boundaries of the Rangiora and Kaiapoi KACs. Planning Map 181 is attached in Appendix 3.

8.2. EXTENT OF WAIMAKARIRI KACS

To assess the likely impact of the inclusion of commercial activity within the subject land on the KACs, it is necessary first to identify the general economic 'health' of the Rangiora and Kaiapoi KACs and assess their level of recovery from the 2010 / 11 Canterbury earthquakes. Figure 5 following presents the extent of these KACs.

The Rangiora KAC is an extensive and well-established commercial centre around a 10-minute drive from the subject land. It is the primary commercial centre of Waimakariri. It encompasses an estimated land area of around 25ha and is almost fully developed.

There is a diverse range of commercial and retail activities with the Rangiora KAC, including a supermarket, cinema, health, personal care & beauty services, childcare, bank and postal

services, travel, entertainment, and a range of community facilities (e.g., community corrections, church, library etc.).

FIGURE 5 EXTENT OF KEY ACTIVITY CENTRES WITHIN WAIMAKARIRI

Source: WDC, Google Maps, LINZ

The Kaiapoi KAC is of a smaller scale spanning approximately 16ha of land and is approximately 12 minutes from the subject land via State Highway 1. The Kaiapoi KAC is anchored by a range of commercial and retail services primarily satiating the convenience needs of the Kaiapoi local community.

Even though the LURP has also identified Woodend / Pegasus as one of Waimakariri's KACs. This is more a future proposition with no KAC yet established in this area. PPC30 was proposed to fulfil this role and function but was declined as a result of potential retail impacts and distributional effects, and a limited market to support the development of a new KAC in this location at this point in time.

Since KACs identified differ from one another in overall size and form and the scale and balance of the activities they offer, they reflect the needs of particular communities. They are to undergo ongoing development to accompany the recovery process of the local community.

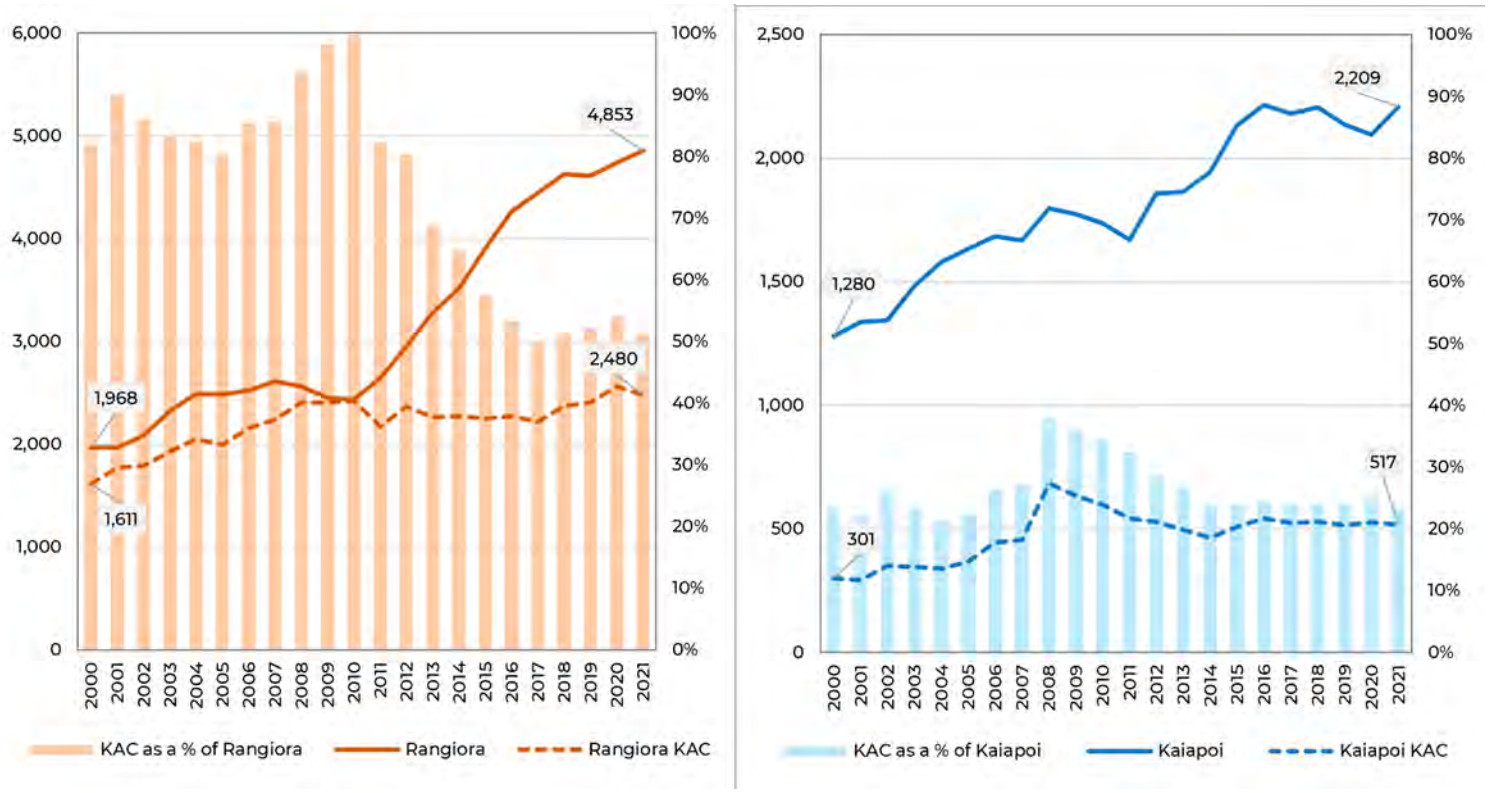
Therefore, the Pegasus Mākete cannot undermine the recovery, role, function, and vitality of Waimakariri's existing KACs.

8.3. BUSINESS ACTIVITIES WITHIN RANGIORA AND KAIAPOI KACS

Ongoing employment / jobs growth is critical to a thriving centre as they can create additional footfall for retailers and increase a centre's vitality, vibrancy and amenity. Given this context, this section assesses the employment count trend in Rangiora and Kaiapoi KAC for the 2000-2021 period to assist determining the current economic baseline for each centre, and their ability to incur adverse impacts as a result of new retail / commercial development in the district.

Figure 6 illustrates the employment changes that have occurred within the wider Rangiora and Kaiapoi township and defined KAC areas based on Business Demography data by Stats NZ. The 2018 Meshblock statistical boundaries are used to determine the extent of each KAC.

FIGURE 6 THE EMPLOYMENT CONTRIBUTION OF KACS IN TOWNSHIPS



Source: Property Economics, Stats NZ

As indicated in the above figure, there is a static proportion of Rangiora employment relative to the identified KAC over the last decade. Over the 2000-2010 period, the Rangiora KAC as a percentage of total Rangiora employment grew increasing its relevance and important as a commercial hub for the local economy. However post-earthquakes the Rangiora KAC proportion has remained relatively static at around 40% despite significant growth in Rangiora.

This indicates a significant proportion of employment growth in Rangiora over the last 10 years has been outside the KAC.

In Kaiapoi, the employment share of the KAC in as a proportion of the wider Kaiapoi area remained relatively static from 2000 to 2021. Prior to the 2010-11 earthquakes, there was an improvement in the share from 24% to 36%. However, the Kaiapoi KAC currently accounts for only 23% and has remained at a similar level for the last decade. This reflects that the Kaiapoi KAC has not been successful in attracting business activity growth relative to growth in the wider Kaiapoi market.

Tables 1-2 following provide more detailed data for the business activities within Rangiora and Kaiapoi KACs by sector. Table 1 below shows that Rangiora KAC has a current employment base of 2,480 persons, which is only slightly above (74 more employees) the pre-earthquake levels. This suggests that the Rangiora KAC has been slow to recover from the earthquakes and has not grown materially relative to broader market growth.

Importantly for the Rangiora KAC, the Retail sector has weakened significantly since its peak in 2012, with a net 14% reduction in this sector's employment base. The recent impacts of the COVID-19 pandemic have facilitated a further decline in the KAC's retail employment base indicating the KAC is not performing as well in terms of sales and productivity or an efficiently as envisaged in the District Plan. This would have the effect of adversely impacting the KAC's vitality and amenity, and its ability to fulfil its envisaged role and function in the community.

The employment composition trends highlight the long-term structural changes in the employment base within the Rangiora KAC. In percentage terms, the share of Public Administration and Safety and Administrative and Support Services in total employment have experienced the most significant growth during the post-quake (2012-2021) period. This corresponds to a gradual shift in Rangiora KAC from a productive to a support services base.

Clearly, the Rangiora KAC is still predominantly a centre servicing the retail and commercial needs of the community with the largest employment across these activity types. These are sectors that service the growing population. However, the KAC has remained relatively stagnant from an employment perspective over the last decade, at a time of robust market growth, indicating a centre could be performing more productively and efficiently.

TABLE 1 RANGIORA KAC EMPLOYMENT COUNT TREND 2000-2021

ANZSIC	2000	2007	2009	2012	2020	2021	2000-21 Growth (#)	2000-21 Growth (%)
A - Agriculture, Forestry and Fishing	6	9	12	9	6	6	0	0%
C - Manufacturing	177	148	189	47	36	54	-123	-69%
D - Electricity, Gas, Water and Waste Services	12	15	25	6	18	12	0	0%
E - Construction	21	67	81	54	69	70	49	233%
F - Wholesale Trade	18	73	73	62	62	76	58	322%
G - Retail Trade	513	792	832	905	813	782	269	52%
H - Accommodation and Food Services	184	289	302	312	302	341	157	85%
I - Transport, Postal and Warehousing	51	49	52	43	25	28	-23	-45%
J - Information Media and Telecommunications	42	39	42	41	61	53	11	26%
K - Financial and Insurance Services	69	56	69	73	96	83	14	20%
L - Rental, Hiring and Real Estate Services	49	49	40	46	30	21	-28	-57%
M - Professional, Scientific and Technical Services	125	172	172	156	258	181	56	45%
N - Administrative and Support Services	28	87	54	91	177	126	98	350%
O - Public Administration and Safety	191	178	200	256	271	339	148	77%
P - Education and Training	0	0	0	0	9	9	9	n.a
Q - Health Care and Social Assistance	51	90	127	141	159	140	89	175%
R - Arts and Recreation Services	6	0	9	6	28	12	6	100%
S - Other Services	68	125	127	120	144	147	79	116%
Total All Industries	**1,611**	**2,238**	**2,406**	**2,368**	**2,564**	**2,480**	**869**	**54%**

Source: Stats NZ

Table 2 following shows the changing employment trends in the Kaiapoi KAC. The data indicates the Kaiapoi KAC has yet to return to its pre-quake peak. The Kaiapoi KAC was significantly damaged during the earthquakes with the employment data suggesting that the post-earthquake recovery and redevelopment process is still ongoing.

However, the Kaiapoi KAC has experienced significant net growth (72%) from 2000. The most pronounced increases were in the Retail Trade and Accommodation and Food Services, primarily due to the KACs role and function. These two sectors remain the most significant employers within Kaiapoi accounting for around three-quarters of the KACs total employment base.

The data indicates significant potential remains in the Kaiapoi KAC for redevelopment, improved productivity and efficiency in its stores and land. To fulfil its envisaged role and function in the District Plan, ongoing retail and commercial growth would need to be channelled into the Kaiapoi KAC.

Given the current '*state*' of both the Rangiora and Kaiapoi KACs based on employment levels, there appears significant capacity and potential within each and any new development in the district should not undermine the ability for these KACs to grow and be redeveloped in order for greater economic wellbeing and social amenity to be afforded to the community.

TABLE 2 KAIAPOI KAC EMPLOYMENT COUNT TREND 2000-2021

ANZSIC	2000	2007	2009	2012	2020	2021	2000-21 Growth (#)	2000-21 Growth (%)
C - Manufacturing	24	24	18	21	9	6	-18	-75%
E - Construction	0	3	6	3	6	3	3	n.a
F - Wholesale Trade	3	9	6	3	3	3	0	0%
G - Retail Trade	48	68	227	193	161	157	109	227%
H - Accommodation and Food Services	37	128	177	123	130	116	79	214%
I - Transport, Postal and Warehousing	36	21	24	15	65	58	22	61%
J - Information Media and Telecommunications	0	3	0	0	0	0	0	n.a
K - Financial and Insurance Services	27	30	36	33	21	27	0	0%
L - Rental, Hiring and Real Estate Services	12	39	18	18	3	3	-9	-75%
M - Professional, Scientific and Technical Services	21	30	36	24	51	54	33	157%
N - Administrative and Support Services	6	6	3	9	3	3	-3	-50%
O - Public Administration and Safety	24	27	24	21	21	18	-6	-25%
P - Education and Training	9	9	9	0	0	0	-9	-100%
Q - Health Care and Social Assistance	30	30	30	42	30	30	0	0%
R - Arts and Recreation Services	0	3	0	0	0	15	15	n.a
S - Other Services	24	24	21	24	24	24	0	0%
Total All Industries	**301**	**454**	**635**	**529**	**527**	**517**	**216**	**72%**

Source: Stats NZ

8.4. LIKELY IMPACT ON KACS

Given the data analysis above, it is considered that both Rangiora and Kaiapoi KACs have not been fully recovered from two major events over the last decade – Canterbury earthquakes and COVID 19 pandemic. Both KACs have suffered from a significant decline during the period and lost their relative place in the market and local economy as a consequence. Any development on the subject site must be cognisant of the current '*state*' of the KACs.

The non-KAC areas within Rangiora have been growing faster than the KAC area, suggesting that more support is required to facilitate development that supports the role and function of the Rangiora KAC.

The Kaiapoi KAC shows a comparatively constant contribution to the total employment level of the Kaiapoi as a whole. This KAC primarily services the demand of local communities. These activities are unlikely to be influenced by the proposed tourism-based commercial developments at Pegasus Mākete.

Given this context, it can be expected that the proposed commercial tourism component of Pegasus Mākete would not undermine the role and function of Rangiora and Kaiapoi KACs. These ecological tourism-oriented offerings along with farmers market type offer would not compete with the business activities within the existing KACs or undermine their future prosperity.

9. WAIMAKARIRI DISTRICT TOURISM ACTIVITIES

This section provides an overview of Waimakariri District's tourist sector given the focus of Pegasus Mākete and compares Waimakariri's tourism economy to other Territorial Authorities and the national average.

The impacts on NZ's tourism market have been significant since the COVID-19 pandemic emerged in 2020. The full effects of the pandemic, border closures and loss of international airlines carrying tourists to NZ has not yet been fully quantified. Furthermore, as the economy moves on from the pandemic, evaluating pre-pandemic tourism data is likely to better represent the post-pandemic tourism economy and opportunities.

Assessment of the tourism market assists in identifying the growth potential of the district's tourism economy and the economic rationale of the proposed development, particularly the proposed commercial tourism activities on the subject land.

Pegasus Mākete seeks to '*add to*' the Waimakariri's tourism economy with a unique offer rather than replicate what it already offers. As such the development aims to grow the tourism opportunities and spend in the district rather than redistribute the existing market.

9.1. DISTRICT TOURISM SPEND RECENT TREND

TOTAL TOURISM SPEND

As shown in Figure 7, the total tourism (international and domestic) spend in Waimakariri has increased steadily from $46m in 2009 to $85m in 2020. This equates to net growth in annual spend of 85% in 2020 above the 2009 base year.

Specifically, domestic spend is about 3.5 times larger than the spend contributed by international tourists in 2020. This shows that the Waimakariri tourism economy is highly reliant on domestic visitors accounting for around 78% of the total tourism spend in Waimakariri.

In contrast, annual spend made by international tourists has been modest albeit experiencing relatively consistent growth from only $12m in 2009 to $19m in 2020. To provide some broader context, international tourist spend in NZ for 2020 equated to around $8.3b. This shows Waimakariri is currently missing out on the market opportunities / expenditure international tourists bring to NZ capturing international spend of only around 0.2% of NZ's total.

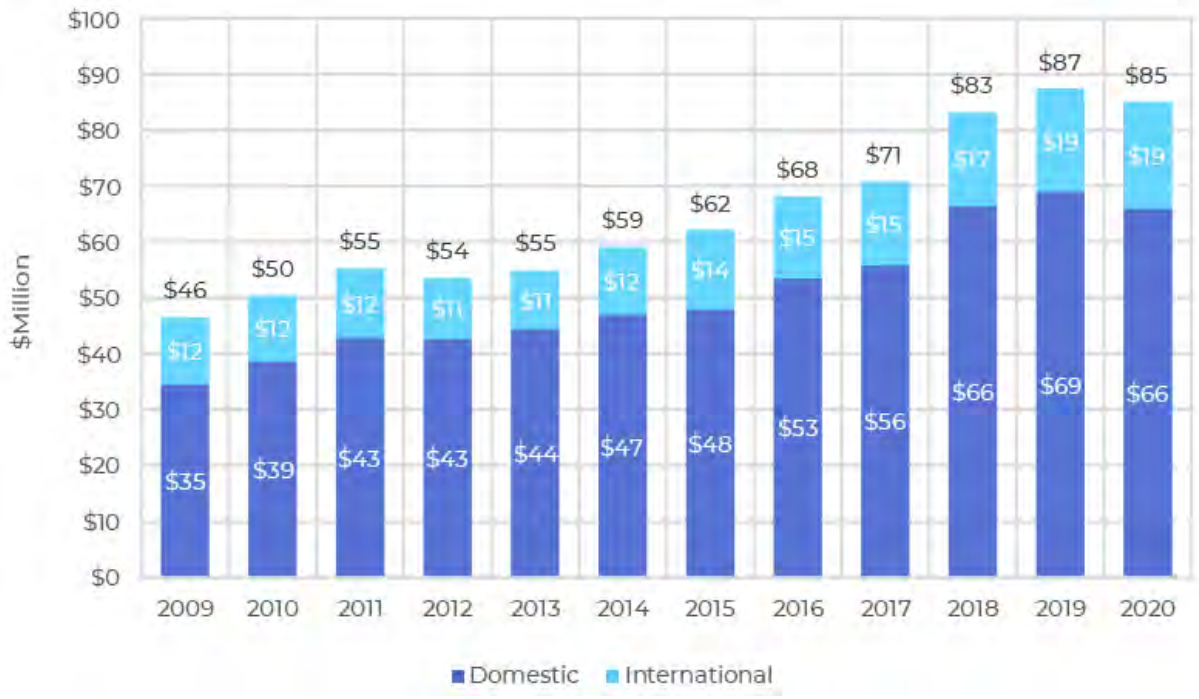
Note, Figure 7 is based on MBIE Monthly Regional Tourism Estimates (MRTE) for the years ended October 2020. The total Waimakariri tourism market equates to around $85m annually. The data shows that this is slightly down from the pre-COVID-19 peak of $87m in 2019. This represents the first drop in year-on-year tourism spend growth since 2012.

With a strong domestic tourist bias, the impacts of COVID-19 are likely to be less severe for Waimakariri than more international tourist markets such as Queenstown and Rotorua. In

Property Economics experience analysing initial COVID-19 tourism around many districts across the country, those areas with a heavy reliance on domestic tourism incurred on minor impacts relative to the international destinations.

In terms of Waimakariri's initial COVID-19 impacts, a $2m or 2.3% impact on the tourism market is considered low with the district appearing to have escaped to worst of the initial impacts as a result of increased domestic travel with international borders closed.

FIGURE 7 WAIMAKARIRI DISTRICT ANNUAL TOURISM SPEND FOR THE YEAR ENDED OCTOBER



Source: MBIE

DOMESTIC TOURISM SPEND BY ORIGIN

Property Economics further assesses the tourism spend in Waimakariri by origin over the last three years based on the latest MBIE Tourism Electronic Card Transactions (TECTs) data released in January 2022. The TECTs data is provided by MarketView, who use a base of ECT spending from the Paymark network (approximately 70 per cent of total ECT spend) to estimate total ECT spend.

Note, the TECTs represent part of total tourism spend as they are based almost exclusively on physical electronic card transactions, and do not include any other form of spending such as cash, pre-purchases or online spend. MBIE suggests that the TECTs are the best available measure for tracking tourism spending in New Zealand amidst the COVID-19 border restrictions.

Table 3 below shows that the intra-Canterbury tourism accounts for about 18% of the domestic total TECTs spend within Waimakariri for the year ended January 2022.

Auckland is the second-largest origin of tourism spend in Waimakariri, contributing to around 12% of the domestic total spend for the same year. This is followed by Wellington and West Coast, which aggregately contribute to over 16% of the domestic total TECTs spend within Waimakariri in the year ended January 2022.

Moreover, over half of these identified origins have shown a growth in their TECTs spend within Waimakariri from 2020 to 2022, with Wellington experiencing the most significant net growth in annual spend of 2.4% in 2022 above the 2020 (pre-COVID-19) base year. This is likely a reflection of closed international borders increasing domestic travel demand during COVID-19.

TABLE 3: WAIMAKARIRI DOMESTIC TECTS SPEND BY ORIGIN: YEAR ENDING IN JANUARY

Origin	2020	2021	2022
Auckland	12.3%	11.6%	11.5%
Bay of Plenty	3.2%	3.3%	3.4%
Canterbury	18.0%	18.9%	17.8%
Gisborne	0.4%	0.5%	0.7%
Hawke's Bay	1.9%	1.9%	2.5%
Manawatu-Whanganui	2.7%	3.0%	3.4%
Marlborough	6.4%	6.8%	6.3%
Nelson	3.5%	3.4%	3.5%
Northland	1.8%	1.9%	1.6%
Otago	8.2%	7.3%	6.6%
Southland	2.7%	2.9%	2.7%
Taranaki	0.9%	1.0%	1.6%
Tasman	5.8%	5.4%	5.6%
Waikato	4.6%	5.6%	5.9%
Wellington	6.4%	6.8%	8.8%
West Coast	6.8%	7.0%	7.5%
Other	10.9%	8.4%	6.9%
Undefined	3.6%	4.1%	3.7%

Source: MBIE

9.2. LIKELY IMPACT ON TOURISM INDUSTRY

The WDC has adopted the *Waimakariri Visitor Marketing Strategy 2020-2025* (hereafter, the Strategy) in November 2020 to highlight the key actions that the district will respond to new priorities reflecting the district's growth expectations, current and future developments, and the recent COVID-19 recovery.

This Strategy outlines a framework that maximises – through destination marketing – the positive outcomes of a growing visitor market on the district's economy and guides activities to help achieve this. It also sets a range of Key Performance Indicators (KPIs) to provide a general indication of the progress being made as the strategies and actions are delivered by 2025. Appendix 4 presents the KPIs defined by WDC and Enterprise North Canterbury for the 'Destination Appeal' objective.

Having assessed the latest data available, Waimakariri tourism spending has been largely driven by domestic tourists, which has not been significantly adversely impacted by the COVID-19 border restrictions.

In terms of spend origins, around 46% of Waimakariri TECTs spending is found to be contributed by four main regions – Canterbury, Auckland, Wellington, and West Coast.

To increase the destination appeal of Waimakariri, future tourism activities that can leverage the locational and landscape characteristics of the district will ensure the long-term growth of the Waimakariri tourism economy. As such, the proposed tourism activities at Pegasus Mākete supports the tourist destination strategy and would boost the overall performance of the district's tourism economy in the long term.

10. COSTS AND BENEFITS ANALYSIS

The proposed Pegasus Mākete development would generate a range of costs and benefits. This section outlines some of the high-level costs and benefits of rezoning the submission site in contrast to the retention of current rural land use.

ECONOMIC BENEFITS

- Improved Land Use Efficiency: Given the proposed SPZ(PR) in the surrounding area and the locational characteristics of the subject land, the current Rural or the Proposed Rural Lifestyle zoning would not efficiently reflect the significant potential of the subject land. In contrast, the proposed Pegasus Mākete development would improve the land-use efficiency of the proposed site by complementing the proposed residential and tourism activities within the SPZ(PR).
- Increased Housing Capacity: Under the NPS-UD provisions, Waimakariri District, as a Tier 1 local authority, is required to provide sufficient residential capacity to respond to changes in residential demand. The proposed development would supply the Waimakariri market with an increase in net housing capacity. This would contribute to accommodating the expected population and household growth of the district.
- Increased Choice of Dwelling Location and Typology: The proposed development would provide residents additional housing choices in their living environment in respect of location and typology. The locational and proposed Mākete on the subject land would create a unique environment that would not duplicate the demand for dwellings in other areas.
- Enhance District and Local Profile: The proposed development has the potential to attract residents and tourists from beyond the broader Canterbury region as well as the rest of the country. This would enhance the district's and Pegasus' profile, triggering further economic growth.
- Provide Additional Employment Opportunities: The building and operation of a commercial and tourist centre will generate employment opportunities in Construction, Retail, and Services for the local economy. This represents an increase in employment retention, which has flow-on, "*indirect and induced,*" impacts that boost further economic activity.
- Improve Existing Accommodation Utilisation: The proposed Pegasus Mākete development will attract overnight tourists from other regions and overseas. This will encourage more efficient use of Pegasus existing tourism accommodation capacity.
- Diversify Economic Composition: By diversifying the district's existing business base the district is less reliant on traditional forms of economic activity improving its overall resilience to wider economic shocks.

- Support Local Farmers/Growers: The proposed farmers market will directly connect farmer/growers and consumers. By selling directly to consumers, farmers are able to reduce their costs in transportation, handling, refrigeration, and storage.
- Support Healthy Communities: The proposed farmers market and educational opportunities at the Pegasus Mākete would be a good opportunity for the local farmers to educate their shoppers by discussing farming practices, nutrition and how to prepare food with their customers. This will help cultivate a community with healthy purchasing and consumption preferences.

ECONOMIC COSTS

- A decline in Land Conservation: Land preservation can signal a commitment to agriculture that can help to ensure a critical mass of farms that may be necessary to protect the viability of Waimakariri's productive sector. Rezoning the subject land from Rural (or the proposed Rural Lifestyle zone) to SPZ(PR) has the potential to reduce Waimakariri primary land conservation. This cost is, of course, relative to the existing level of rural land and is subject to the site currently exhibiting no rural activities.
- Loss of Productive Land: The subject land is registered as Land Use Capability (LUC) Class 2 - productive soils suitable for agricultural use with slight limitations[2]. However, Property Economics considers that the likelihood of intensive primary production on this land in the future is marginal due to the small size of the land parcel.

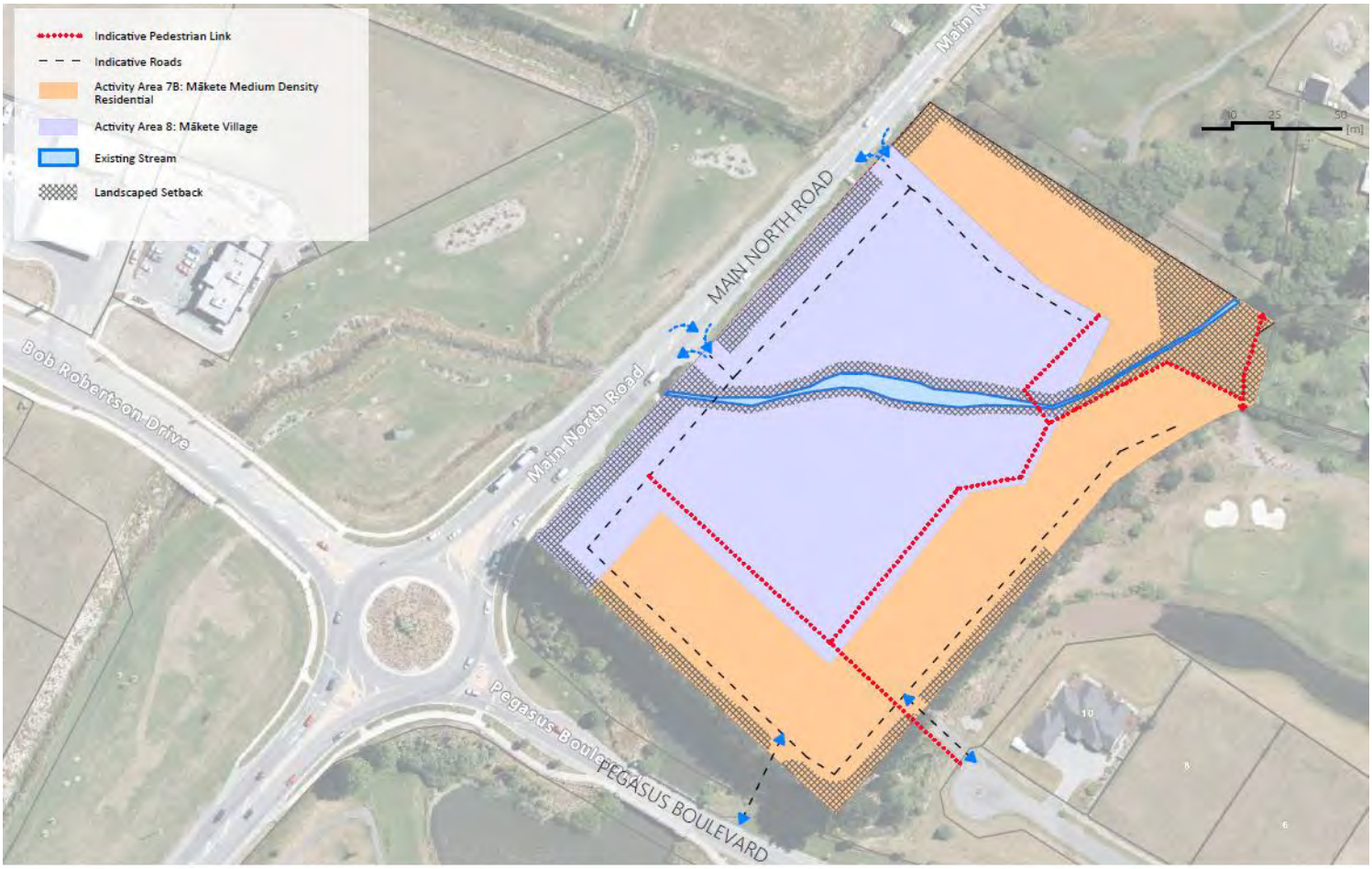
  Primary production at the subject land is unlikely to result in a loss of productive capacity of the subject land due to the limited land area (i.e., 3ha vs 4ha) - 4ha is often considered a minimum land requirement to efficiently facilitate primary production activities.

  Given the reasons mentioned above, Property Economics considers that the opportunity cost of productive land loss due to the proposal is minimal and would not undermine the overall economic efficiency or opportunities of the productive sector in Waimakariri.

In Property Economics' view, the proposed Pegasus Mākete development has a high likelihood of resulting in a net economic gain to the local and district economies.

[2] *See Appendix 5 for a map of the land use capability status of the subject site and the district.*

APPENDIX 1. PROPOSED OUTLINE DEVELOPMENT PLAN

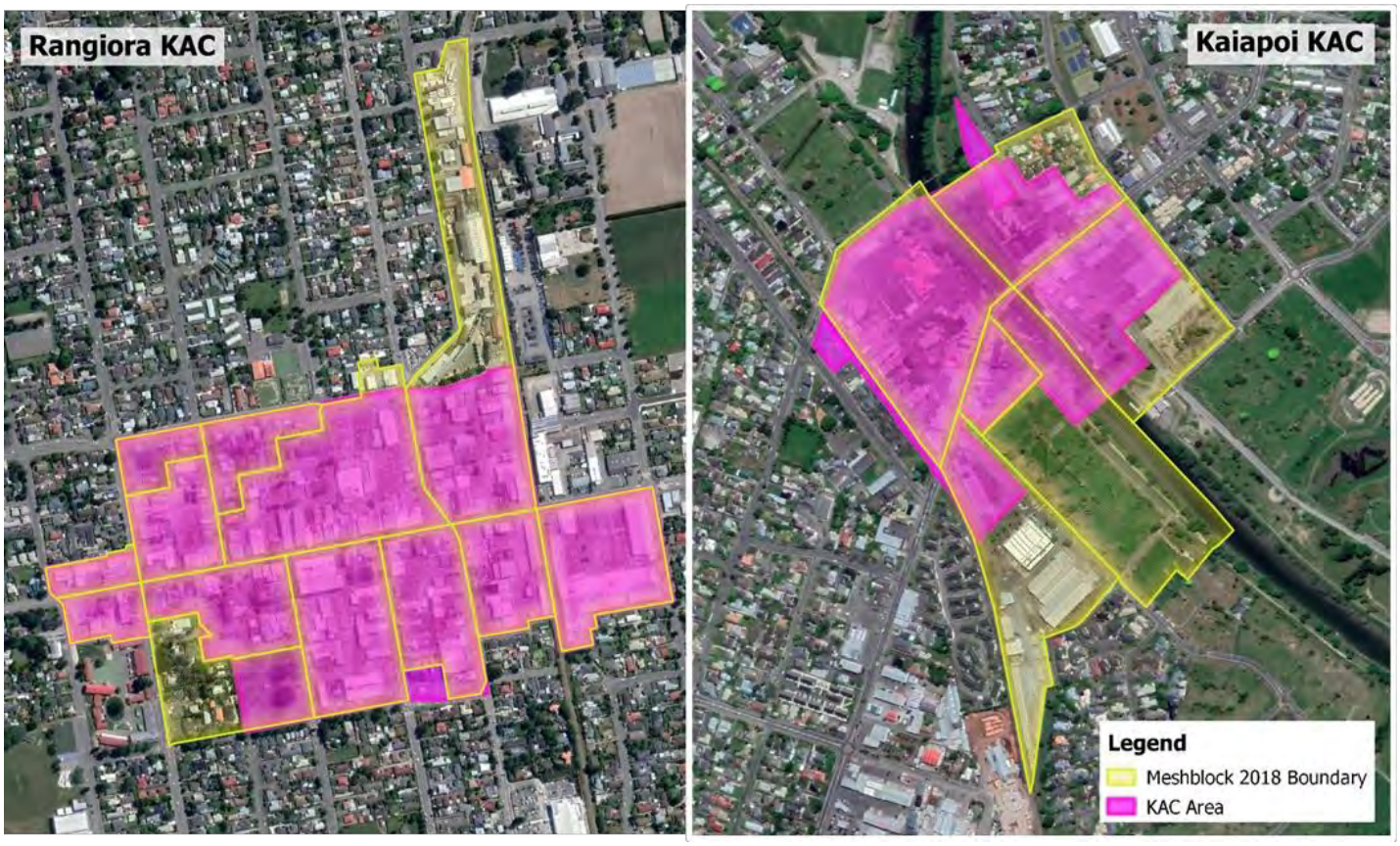


Source: Dexin Investments Limited

APPENDIX 2. SUBJECT SITE IN THE CONTEXT OF SPZ(PR)

Source: WDC

APPENDIX 3. RANGIORA AND KAIAPOI KAC AREAS



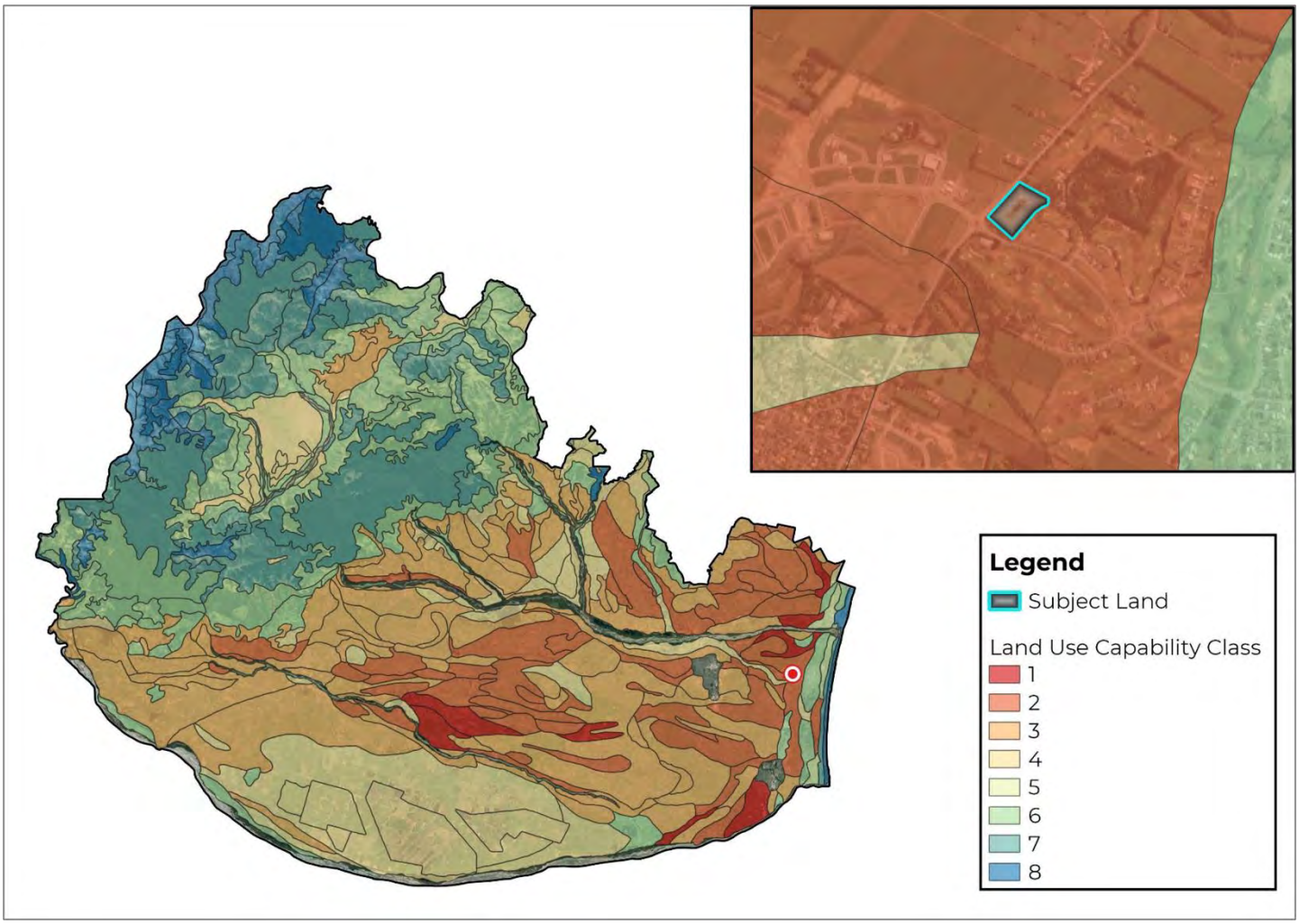
Source: WDC, Stats NZ

APPENDIX 4. KPI FOR WAIMAKARIRI DESTINATION APPEAL

KPI	Baseline	2021	2022	2023
Destination Appeal				
Visitor spend (using MRTEs and Marketview)	2020 baseline data	+1%*	+5%*	+5%*
• Overall spend		+1%*	+4%*	+4%*
• Accommodation spend		maintained	maintained	maintained
• Maintain share of Canterbury spend				
Increased number of high-quality visitor experiences in the district:		2 new road trip themed maps	2 new road trip themed maps	1-2 new road trip themed maps
• New combinations of activities e.g. road trip maps launched				

Source: WDC

APPENDIX 5. LAND USE CAPABILITY CLASS



Source: LRIS, Google Maps

Appendix B:

Landscape Effects Assessment

Proposed Zone Change Pegasus Mākete

Landscape Effects Assessment

15 November 2022

Prepared by

MIKE MOORE
BSc, Dip LA, MRRP, ANZILA

LANDSCAPE ARCHITECT

Po box 5076, Dunedin

Tel (03)479 0833 . cell 0274 360 163

Email mike@mmla.co.nz

Introduction

Dexin Investment Ltd have made a submission on the proposed Waimakariri District Plan (pWDP) which includes proposing an extension to the Special Purpose Zone (Pegasus Resort) (SPZ(PR)) to incorporate an additional 3.05 ha site at 1250 Main North Road. The submission promotes the adoption of two new activity areas for this site in the SPZ(PR) Outline Development Plan (ODP) to provide for a range of tourism and complementary medium density residential activities. The subject site is currently zoned Rural and the pWDP presently proposes a change in zoning of this site to Rural Lifestyle Zone.

Draft amendments / additions to the SPZ(PR) ODP have been developed, and on the basis of these, this report provides an assessment of the landscape effects of the proposed plan change. It will be structured as follows:

- Methodology
- Landscape character description
- Landscape values
- The proposed plan change
- Landscape effects assessment
- Statutory assessment
- Conclusion

Methodology

This assessment follows the concepts and principles outlined in the New Zealand Institute of Landscape Architects (NZILA) Best practice guidelines[1], and has been informed by a review of the relevant statutory provisions and a site visit on 3 May 2022.

[1] Te Tangi A Te Manu, Aotearoa New Zealand Landscape Assessment Guidelines. Tuia Pito Ora New Zealand Institute of Landscape Architects, July 2022.

Landscape character description

As shown in **Figure 1,** the site is a 3.05 ha property bounded to the north, east and south by the Pegasus Resort golf course, and adjacent to Main North Road (State Highway 1) to the west. It is currently occupied by one rural dwelling with associated sheds and outbuildings and the land is predominantly under pasture cover. It is relatively open to the highway, but other boundaries are well planted with mature exotic trees of mixed character (dominated by poplar). A channelized waterway (Taranaki Stream) runs eastward through the middle of the property, and there is a well-established framework of mainly exotic shelter and amenity plantings associated with the house, including an orchard in the north-eastern corner of the property.

The geology of the area is alluvial deposits, and the topography is flat and low lying. Taranaki Creek drains to the Ashley River / Rakahuri estuary, some 4.5km to the north and feeds the golf course water features in the Pegasus Resort. Prior to drainage for agriculture much of this area was once a network of waterways and wetlands, with a natural flora of totara matai podocarp forest[2]. The Kaiapoi Pa site which was surrounded by wetlands[3] is approximately 1km to the north (adjacent to Preeces Road).

The property is surrounded on three sides by the Pegasus Resort (zoned SPZ(PR)), and the entrance to the Pegasus Resort and Pegasus township is adjacent to its southern boundary. Parkland associated with the resort golf course adjoins the eastern and northern boundaries of the site. Across State Highway 1 is the large-scale retail development at Ravenswood and the land there is zoned to accommodate the northward expansion of Woodend.

Figures 2 - 8 illustrate the character of the site.

[2] DoC, 2005, Native plant communities of the Canterbury Plains, Department of Conservation, Christchurch.

[3] Mahaanui, 2013, Iwi Management Plan, Ngai Tuahuriri Runanga et al.

Landscape Values

Neither the plan change area specifically nor the wider landscape context more generally, has any especially recognized landscape value in the WDP. In terms of natural character, the area is significantly modified and no longer particularly expressive of its formative natural processes. This aside, the area does have landscape values that should be acknowledged as follows:

This landscape has significant cultural and historic associative values as a focus of pre-European Maori settlement. A pa site was discovered during the development of the Pegasus golf course[4] and the site of the important Kaiapoi Pa which was destroyed by Te Rauppraraha in 1832 is close to the site. The entire area between the Rakahuri (Ashley River) and Waimakariri River is a cultural landscape with significant historical, traditional, cultural and contemporary associations[5]. The site also has some historic heritage significance related to an early flour mill that was located adjacent to Taranaki Stream. The mill foundations are still present.

The subject site is currently zoned 'Rural' in the operative Waimakariri District Plan and in common with much of the rural land in the eastern part of the district is zoned 'Rural Lifestyle' in the pWDP. The area has a rural / urban interface character, and rural qualities of openness and dominance of natural elements are modified by the presence of retail developments and the built elements, including low density housing, within the Pegasus Resort area. In my assessment the current openness and rural character of the site, including its mature trees, contributes positively to amenity values in the wider landscape.

The proposed plan change

It is proposed to extend the SPZ(PR) in the pWDP to include the subject property and to adopt two new activity areas for this site in the SPZ(PR) Outline Development Plan

[4] https://en.wikipedia.org/wiki/Pegasus
[5] Mahaanui, 2013, Iwi Management Plan, Ngai Tuahuriri Runanga et al.

(ODP) to provide for a range of ātourism and complementary medium density residential activities as follows:

- Activity Area 7b: Mākete Medium Density Residential
- Activity Area 8: Mākete Village

The Outline Development Plan (ODP) proposed for this area is shown in **Figure 9**, and the Proposed Site Plan in **Figure 10**. The provisions of particular relevance to the landscape and amenity effects of the proposed plan change are as follows:

Provision	**Reason**
Building height - Mākete Medium Density Residential 12m - Mākete Village 7m	• Consistency with pWDP Medium density residential zone. • Provides for the intended scale in the ODP and mitigates adverse effects on openness as viewed from SH1.
Landscape Buffers - Adjacent to SH1 Except for where vehicle entrances cut through, a minimum strip 7m wide – to be developed with low, naturalistic mounding up to 1.0m high and completely planted in species a minimum of 0.5m high. At least 1 tree capable of reaching 10m at maturity is to be planted / 20m^2 - Other zone change area boundaries where buildings are proposed within 20m of the boundary (as shown on the ODP) Except for where vehicle entrances cut through, a minimum strip 3.5m wide –	• Provides for mitigation of views of parked cars whilst allowing for filtered views into the site. • Provides for effective semi screening and softening of views of built form from beyond the site.

to be completely planted in species a minimum of 0.5m high. At least 1 tree capable of reaching 10m at maturity to be planted / 20m^2	
- Alongside Taranaki Stream including all areas of high and medium flood risk and a minimum of 5m each side of the stream from the top of the bank (as shown on the ODP) Except for where driveways cross, these areas are to be appropriately planted using locally appropriate indigenous species to enhance the natural waterway values and should be free of any new structures (other than pathways and decks less than 1m in height).	• Provides for ecological restoration of a significant landscape element.
Building setbacks and recession planes from zone change area boundaries - State Highway boundary – 25m Activity Area 7B Mākete Medium Density Residential - 30m Activity Area 8 Mākete Village	• Reflects the ODP and helps protect openness from SH1.
All other boundaries – As per Mākete Medium Density Residential Area standards	• Will be mainly controlled by landscape buffer areas, but recession planes will help protect amenity of adjacent areas.
Building colours - All buildings shall meet the following requirements: a. Exterior wall cladding including gable ends, dormers and trim of all structures shall be finished in their natural colours or coloured earthy mid-tones and	• Consistent with Pegasus resort. Recessive colours assist to minimise built form impact – consistent with the theme of the development.

achieve reflectivity between 5% and 22%. b. Roofs of all structures including trim shall be finished in their natural colours or coloured dark tones and achieve reflectivity between 5 and 12%.	
Building coverage (maximum) - Activity Area 7B – 50% - Activity Area 8 – 20%	• Generally consistent with the pWDP Medium Density Residential Zone • Reflects the current site development plan.
Waste Management Areas - Screening requirements	• Provides for protection of visual amenity from public areas.
Outdoor Storage - Not permitted, other than vehicles	• Provides for protection of visual amenity from public areas.
Landscaping minimum areas - Activity Area 8 – 50%	• Reflects the current site development plan.
Landscape design guidelines - SPZ(PR) landscape guidelines are to apply.	• Consistency in character with the resort adjacent. The guidelines provide the flexibility to subtly emphasise this as a different area (e.g., more indigenous in planted character).

Landscape effects assessment

Landscape effects are defined as follows:

'An adverse or positive outcome for a landscape value as a consequence of changes to a landscape's physical attributes.[6]

[6] Te Tangi A Te Manu, Aotearoa New Zealand Landscape Assessment Guidelines. Tuia Pito Ora New Zealand Institute of Landscape Architects, July 2022

I assess the landscape effects of the zone change against the landscape values discussed above. Landscape effects may be positive or adverse in nature and I rate the degree of effect in terms of the following 7-point rating scale. As per the NZILA Best Practice Guide[7], I relate this scale to the relevant RMA terminology as shown in the table below:

Degree of effect assessment scale

Very low	*Low*	*Low-mod*	*Moderate*	*Mod-high*	*High*	*Very high*
Less than minor		*Minor*	*More than minor*		*Significant*	

Visual effects assessment

The landscape changes that will be enabled by the proposed zoning change will be experienced both from within the area and without. Key external viewpoints impacted include State Highway 1, Ravenswood, Pegasus Boulevard, the Pegasus golf course adjacent, and the nearest dwellings – in particular 10 Burntwood Lane and 70 and 74 Mapleham Drive. The following is a description of the likely effects of the zone change from these viewpoints. I base my assessment on the development concept in the ODP.

Viewpoint: State Highway 1 adjacent to the northern corner of the site (See Figure 2)

Significance of viewpoint	*State Highway 1 is a major transportation corridor with high user numbers*
Approx distance to the site	*15m*
Existing view description	*The site forms the foreground of the view to the southeast. The existing house and its associated sheds are seen within a mature setting of largely exotic trees. These create a relatively confined landscape scale and screen views of the Pegasus Resort and golf course at this point. More widely, the viewer is aware of the Ravenswood buildings and the proximity of Woodend and Pegasus, and the peri-urban nature of the rural environment.*
Description of visual effects	*The zone change will lead to a change in the character of the site from rural to commercial / resort as open paddocks are replaced with car parks and*

[7] Te Tangi A Te Manu, Aotearoa New Zealand Landscape Assessment Guidelines. April 2021

	buildings. The sculptural landmark will also highlight this. The landscape scale (including tree scale) will reduce. The resulting landscape will integrate well in this setting with commercial buildings across the road at Ravenswood and the Pegasus resort to both sides on the east side of the road. Effects on openness will be mitigated by the building setback and adverse amenity effects from parked vehicles will be mitigated by the planting buffers. The prominence of built form will be mitigated by the proposed dark colour pallet.

Viewpoint: State Highway 1 south of the Pegasus Boulevard roundabout (See Figure 3)

Significance of viewpoint	*State Highway 1 is a major transportation corridor with high user numbers*
Approx distance to the site	*200m*
Existing view description	*This is a view north-east along State Highway 1. The Ravenswood industrial / retail area is to the west of the road and the Pegasus resort, seen as golf course and highlighted by the entrance feature, is to the east. The site trees, particularly the poplar shelter belt on the southern boundary, are significant landscape elements, and contribute to the rural character of the background landscape northwards.*
Description of visual effects	*The main change associated with the zone change will be removal of the large scale rural trees. The medium density residential buildings near the southern boundary will be visible but will be semi screened / softened by existing Pegasus entranceway planting and planting proposed as landscape buffer. The visual prominence of these buildings will also be minimized by recessive colour finishes. Other buildings on site will be largely screened by planting associated with the landscape buffers. The proposed landmark feature will have increasing visibility as the viewer moves northward, emphasizing the commercial/ resort character of the site. Development of this nature will integrate readily in this setting.*

Viewpoint: Pegasus Boulevard approximately 170m east of its intersection with State Highway 1 (See Figure 4)

Significance of viewpoint	*Pegasus Boulevard is a high use roadway and access to both Pegasus Resort and Pegasus township*

Approx distance to the site	*170m*
Existing view description	*This is a northwestward view from a point on Pegasus Boulevard close to the site. The site is seen as open rural paddock through the large-scale shelter tree framework. Commercial buildings at Ravenswood can be seen in the distance across State Highway 1.*
Description of visual effects	*The Plan change will result in a major change from this viewpoint. Whilst there is already some planted buffer associated with the ponds / waterways, the large-scale site trees will go, to be replaced by a fairly continuous wall of medium residential density built form up to 12m high. The visual impact of this will be mitigated by dark colour finishes and by the landscape buffer plantings. This development will reduce the current openness but will integrate well with the resort character.*

Viewpoint: Mapleham Drive near its intersection with Taerutu Lane (See Figure 5)

Significance of viewpoint	*This viewpoint is generally indicative of the views toward the site from the golf course adjacent to the site to the east.*
Approx distance to the site	*230m*
Existing view description	*This is a westward view across the parkland of the golf course and the houses adjacent to Burntwood Lane toward the site. The large rural scale boundary trees of the site and other larger trees within it are important elements in the middle distance*
Description of visual effects	*The large-scale boundary trees on the site are unlikely to be compatible with closer buildings and will likely be removed. Medium density residential built form will be visible in blocks up to 12m high beyond the Burntwood Lane houses. The visual prominence of these will be mitigated by dark colour finishes and the landscape buffer planting. Other built form on the site is unlikely to have much if any visibility due to the retention of existing trees in the north-eastern part of the site as well as additional plantings associated with landscape buffers.*

Viewpoint: The golf course adjacent to 68 Mapleham Drive. (See Figure 6)

Significance of viewpoint	*This viewpoint is generally indicative of the views toward the site from the golf course adjacent to the site to the north-east.*

Approx distance to the site	*110m*
Existing view description	*This is a south-westward view toward the site, which can be seen through the golf course trees, mainly as open paddock and trees. State Highway 1 (and traffic on it) and Ravenswood commercial elements are also visible in the middle distance.*
Description of visual effects	*The views through to open paddock will change to a view of terraced medium density residential buildings. The impact of built form will be mitigated by its dark colour finish and broken up by the proposed landscape buffer. The introduction of this element will integrate readily enough with the residential / golf course resort character.*

Viewpoint: The golf course approximately 420m to the south of the site. (See Figure 7)

Significance of viewpoint	*This viewpoint is generally indicative of the views toward the site from more distant viewpoints on the golf course to the south.*
Approx distance to the site	*420m*
Existing view description	*This is north-westward view across the golf course with Ravenswood and the distant mountains visible beyond. This site is visible in the middle distance, beyond Pegasus Boulevard, seen as open paddock through the large-scale rural shelter trees.*
Description of visual effects	*The key change the zone change will bring is that the large scale boundary trees will be removed and will be replaced with blocks of medium density residential built form approximately half the height of the trees. Views of the ranges will be opened up to an extent as a result, and the visual impact of the buildings will be mitigated by their dark colour finishes and by the proposed landscape buffer screening and softening. The buildings will integrate acceptably with the residential golf course resort character.*

Viewpoint: Burntwood Lane adjacent to 10 Burntwood Lane. (See Figure 8)

Significance of viewpoint	*This viewpoint is indicative of views from 10 Burntwood Lane, a residential property close to the site and with views toward it.*
Approx distance to the site	*50m*
Existing view	*This is a north-westward view across a waterway swale toward the site,*

description	*which is in close proximity. There is a permeable poplar shelterbelt screen on the boundary, approximately 20m high,The zone change will lead to and the open paddock of the site can be seen through this. Visibility would be reduced when the poplars are in leaf. The retail buildings at Ravenswood, along with traffic on the state highway, more distant rural trees, and the distant ranges are visible beyond the site.*
Description of visual effects	*The zone change will lead to significant change from this viewpoint involving removal of the large boundary trees and the introduction of blocks of medium density residential built form up to 12m high and as close as 16m to the boundary. These will less spatially dominant than the trees (especially in summer) but will not be visually permeable -as the trees are. Their visual prominence will be mitigated by colour scheme and by the proposed landscape buffer. There will also be the effect of traffic on the proposed access road and potentially privacy effects of being overlooked from the buildings. These too, will be mitigated by the landscape buffer.*

There are a group of four residential properties between Mapleham Drive and the site (i.e. 66, 68, 70 and 74 Mapleham Drive) potentially impacted by the zone change. In my assessment however, any visual effects will be minimal because the properties at 66 and 68 Mapleham Drive are at least (approx.) 70m distant from the site to the north, and orientate away from it, whilst the properties at 70 and 74 Mapleham Drive are well buffered by existing trees and closest to the flood prone part of the site where no built form is proposed and where existing trees will be retained.

Effects on landscape character and values

The proposed zone change provides for an extension to the Pegasus Resort, in particular, creating a secondary (and complementary) visitor focal point in addition to the village hub associated with the golf club house. This involves a change in the character of the site from rural dwelling and paddocks, to one more linked with the surrounding golf course parkland and plantings, and in which there is considerably more built form with both a commercial and residential character. In my assessment, this will sit well in the wider setting, on the edge of a developing urban area. The extension of publically

accessible tracks and parkland is a positive aspect. Whilst there is not yet medium density residential development in the vicinity, this is provided for in the WDP both in the Pegasus village hub and in the Ravenswood area.

The site has no biophysical landscape values of great significance, and the proposed zone change will include provisions to enhance the natural character and values of Taranaki Stream – which I consider to be its most significant natural feature. The zone provisions will also ensure that indigenous vegetation cover and biodiversity is enhanced. The proposed zone provisions provide for built form of a scale and character that will integrate well with both its resort context and the wider setting (e.g., building heights are within the range of surrounding zones in the pWDP). The proposed landmark sculptural element is intended to draw attention but within the resort context and with Ravenswood retail elements nearby, this is not inappropriate in my assessment.

The area does have some associative landscape values related to its Maori cultural significance, and to a lesser extent, related to an early flour mill. The zone provisions provide for these aspects to be respected and appropriately interpreted and highlighted.

In my assessment, the proposed Mākete Medium Density Residential area and Mākete Village complex will integrate well with the resort landscape surrounding. In general, there will be minimal adverse impact on the outlook of existing dwellings within the Pegasus Resort area. The one exception to this is 10 Burntwood Lane which, in my assessment, will be adversely affected in terms of visual amenity by the provision for blocks of medium density residential buildings up to 12m high close-by. When considering the baseline provided for in the Rural Lifestyle Zone however (as presently proposed in the WDP), a rural building of up to 550m^2 gross floor and 12m high could be constructed 3m from the site boundary. When assessed against this scenario, the visual amenity effects associated with the proposed zone change are less adverse.

I consider that the development enabled by the zone change will be a good fit in its rapidly evolving urban edge context. It will clearly alter the current rural character and will have adverse effects if assessed against rural landscape values (such as openness / rural land uses etc). When assessed more widely however, I consider that the proposed provisions will ensure a quality development that will have positive landscape effects. Overall, I assess effects as positive / moderate.

Statutory Assessment

The subject site is currently zoned Rural and the pWDP presently proposes a change in zoning of this site to Rural Lifestyle Zone. This proposal seeks to amend the zoning of the site to Special Purpose Zone (Pegasus Resort), expanding the adjacent SPZ(PR) to a small extent. Below, I assess the proposed change against the statutory provisions considered most relevant to the landscape and visual effects.

Operative Waimakariri District Plan

Plan provision	Comment
Objective 14.1.1 *Maintain and enhance both rural production and the rural character of the Rural Zones, which is characterised by:* *a) the dominant effect of paddocks, trees, natural features, and agricultural, pastoral or horticultural activities;* *b) separation between dwelling houses to maintain privacy and a sense of openness;* *c) a dwelling house clustered with ancillary buildings and structures on the same site;* *d) farm buildings and structures close to lot boundaries including roads;* *e) generally quiet – but with some significant intermittent and / or seasonal noise from farming activities;* *f) clean air – but with some significant short term and / or seasonal smells associated with farming activities;* *g) limited signage in the Rural Zone.*	The proposed plan change will provide for a change in the character of the site from Rural to 'resort'. Given the mixed land use character of the setting and the presence of the existing resort adjacent, I consider that the proposed rezoning of the site is appropriate and that the development provided for will integrate well.
Policy 14.1.1.1	As above – rural character and land use will be

Avoid subdivision and / or dwelling house development that results in any loss of rural character or is likely to constrain lawfully established farming activities.	replaced as a result of this plan change.
Policy 14.1.1.3 *Maintain and enhance the environmental qualities such as natural features, air and noise levels, including limited signage and rural retail activities that contribute to the distinctive character of the Rural Zones, consistent with a rural working environment.*	Rural character will be replaced with a resort character as a result of the plan change. This will however, involve enhancement of the natural character of the waterway that flows through the site.
Policy 14.1.1.4 *Maintain rural character as the setting for Residential 4A and 4B Zones.*	See comments above.

Proposed Waimakariri District Plan

Plan provision	**Comment**
NATC-O2 Restoration of natural character Restoration of the natural character of surface freshwater bodies and their margins where degradation has occurred.	The proposed plan change will have positive effects of restoring natural character to Taranaki Stream.
NATC-P4 Preservation of natural character values Preserve the natural character value of wetlands, and lakes and rivers and their margins, and protect those values by: …. 4. promoting opportunities to restore and rehabilitate the natural character of surface freshwater bodies and their margins ….. and supporting initiatives for the	See comment above

regeneration of indigenous biodiversity values, and spiritual, cultural and heritage values	

Canterbury Regional Policy Statement

Plan provision	Comment
Objective 12.2.2 Identification and management of other landscapes *The identification and management of other important landscapes that are not outstanding natural landscapes. Other important landscapes may include:* *1. natural character* *2. amenity* *3 historic and cultural heritage*	The site does not have recognized landscape values but in my assessment the area has some significance as a focal point of pre-European settlement by Maori. Whilst the natural character and original wetlands of this area are now highly modified, the proposed plan change will result in enhanced waterway natural character. And the plan provisions provide for design responses that are in sympathy with the cultural and heritage character of the area.
Policy 12.3.3 Identification and management of other important landscapes *Identifying and managing other important landscapes that are not outstanding natural landscapes, for natural character, historic cultural, historic heritage, and amenity purposes.*	See comment above.

Conclusion

It is proposed to extend the SPZ(PR) to cover the 3.05ha site at 1250 Main North Road, involving a change in the zoning in the pWDP from Rural Lifestyle. The SPZ(PR) already borders the site on three sides and the zoning in the pWDP on the opposite side of the state highway is residential and industrial.

The site currently has a rural character, but this is modified by the encroaching urban land use. Natural character values are now highly modified, and the site has no especially recognized values in the pWDP. The wider area, however, does have significant Maori cultural associations.

Overall, it is my assessment that, considering the provisions proposed to ensure design quality, restore natural character to Taranaki Stream, and to ensure appropriate integration with the setting, landscape effects associated with the development that will flow from the proposed plan change will be positive.

Mike Moore
Registered NZILA Landscape Architect

Figure 1: Site location and photo-point plan

Figure 2: View of the site from State Highway 1 adjacent to the northern corner of the site

Figure 3: View toward the site from State Highway 1 south of the Pegasus Boulevard roundabout

Figure 4: View toward the site from Pegasus Boulevard approximately 170m east of its intersection with State Highway 1

Figure 5: View toward the site from Mapleham Drive near its intersection with Taerutu Lane

Figure 6: View toward the site from the golf course adjacent to 68 Mapleham Drive

Figure 7: View toward the site from the golf course approximately 420m to the south of the site

Figure 8: View of the site from Burntwood Lane adjacent to 10 Burntwood Lane

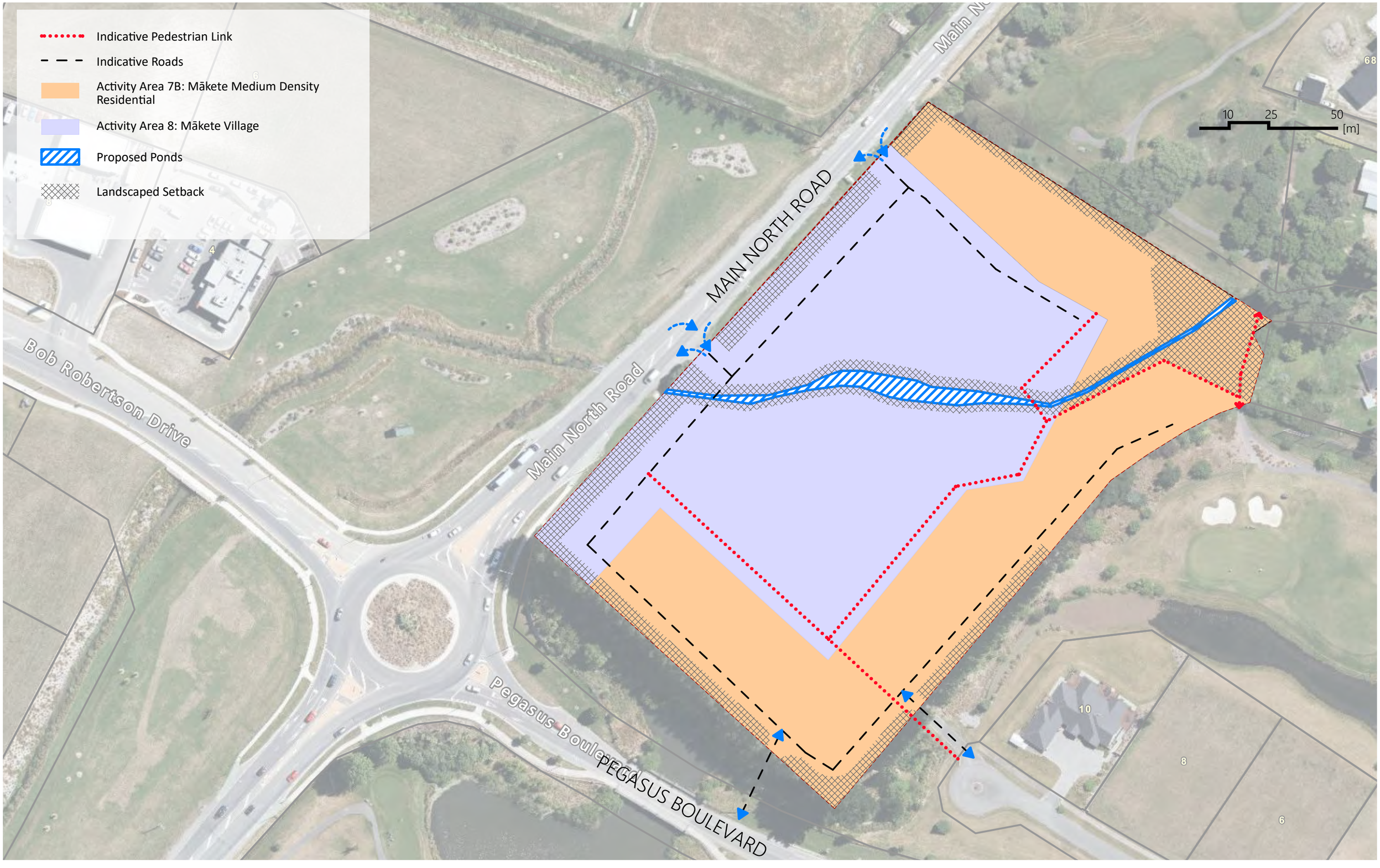


Figure 9: Proposed Outline Development Plan

Proposed Site Plan

Figure 10: Proposed Site Masterplan

Appendix C:

Urban Design Assessment

Proposed Zone Change - Pegasus Mākete

Urban Design Assessment

June 2022

Prepared by: James Lunday DINZ
Dip. Arch, B.A.Hons(First), B.Plan. Hons(First), Dip. UD (Oxford Brookes), M.A.UD Distinction (Oxford Brookes)

Director Common Ground Southern.

REPORT INFORMATION AND QUALITY CONTROL

Prepared For: Dexin Investments Limited

Author: James Lunday DINZ , Director Common Ground. Urban Designer: *Dip. Arch, B.A.Hons(First), B.Plan. Hons(First), Dip. UD (Oxford Brookes), M.A.UD Distinction (Oxford Brookes*

Reviewers: Cameron Coull; Tony Joseph

Approved for Release: James Lunday

Document Name: Pegasus Mākete Urban Design Report

Version : C
Date : 28/06/2022
Version: D
Date: 17/11/2022

Introduction

DEXIN Investments Ltd ('DEXIN') has made a submission to the Proposed Waimakariri District Plan ('proposed WDP') to support the rezoning of their property at 1250 Main North Road, Woodend ('the site'). The site is approximately 3.05 ha in size located on the corner of Main North Road (State Highway 1) and Pegasus Boulevard (**Figure 1**). The property is currently zoned Rural in the operative Waimakariri District Plan, with the proposal to zone the site as Special Purpose Zone (Pegasus Resort) to provide for a range of agricultural tourism activities and some medium density residential development.

Common Ground Ltd was commissioned to undertake an Urban Design Vision for the Site that has now been further developed by Dalman Architects and then informed by Traffic, Ecology, Landscape and Economic reports of the site and the Village Concept of the site and surrounding area to inform the detailed development plan and further submission information. The purpose of the is Urban Design report is to evaluate the final masterplan using recognised Urban Design Principles and to propose an Outline Development Plan that with the Planning Rules and Design Guidelines will provide certainty of outcome to all stakeholders.

Part A : Background

Manaaki whenua, manaaki tangata, haere whakamua

Care for the land, care for the people, go forward

The Outline Development Plan, Rules Package and Design Guidelines seek to ensure the development within the Pegasus Mākete is of a high quality, delivers good urban design outcomes that reflect the Pegasus Mākete style, materiality and colour palette.

FIGURE 1. LOCATION OF SUBJECT SITE

The Mākete is to be considered alongside the Proposed Pegasus Special Purpose Zone which is located just north of Christchurch on State Highway 1 at Woodend and close to the centre of Pegasus Town. The Pegasus Golf Resort encompasses an existing parklands-style par 72 – 18 hole championship golf course surrounding residential development and will provide for a number of other tourist facilities

including, but not limited to, a Spa/Wellness and Hot Pool Complex, Hotel, Spa Village, Country Club, Golf Education Facility, associated activities and existing golf driving range, practice greens, pro shop, tennis courts, gymnasium, bar and cafe.

There is Pegasus Resort Urban Design Guidelines (PRUDG) issued by the developer, Sports and Education Corporation (SEC), and are intended to be administered by Waimakariri District Council (WDC). They reinforce the Outline Development Plan (ODP) and planning provisions for the Special Purpose Zone and form part of the District Plan. They contain on-going requirements that purchasers and lot owners must continue to comply with the Urban Design Guidelines. There are additional Guidelines and indicative masterplan and ODP that fit within the Special Purpose Zone but are unique to this development , Pegasus Mākete

1.1 Location/ Context

The Subject Site was purchased by the owners of Pegasus Golf Course. It is bounded directly to the North and East by the Golf Course , to the South by Pegasus Boulevard and Golf Course and to the west State Highway One and Ravenswood Development.

FIGURE 2. LOCATION OF SUBJECT SITE

1.2 Purpose

The intent of this application is to absorb the existing “stranded” zone into the Special Purpose Zone proposed for Pegasus Golf Resort and to provide an ODP, indicative masterplan, Design Guidelines and suite of Planning rules that ensure that the development is integrated with the proposed Pegasus resort Zone and is complimentary to the surrounding land uses and activities.

The proposal includes:

- Golf Course Residential (Medium Density Residential Standards (MDRS) introduced by the latest RMA amendment.)
- Canterbury Wine Tasting Centre
- Artisan and craft workshops
- Farmers Market Building
- Educational facilities
- Village Green
- Commons

The limits, controls and guidelines that form part of the Private Plan Change are set out under the set activity areas and seen as important tools in creating good urban design outcomes for the establishment of a successful new tourist centre whilst protecting the existing appreciated amenity of Pegasus Golf Course and Ravenswood .

1.3 The Master-planning Process

We have used an enquiry by design process to produce a comprehensive development plan for the site based upon the anticipated land uses. Therefore for transparency the Urban Design team have been involved since the beginning of the project and have guided the built and open space outcomes. The purpose of this report is now to test the final design against best practice urban design principles.

1.4 High Level Design Drivers

We will assess the development using the principles that were adopted for the Pegasus Resort (Special Purpose Zone). This will ensure that the proposal is a fit with the special purpose zone and delivers a project that limits its negative impact on the receiving environment whilst delivering a major new visitor facility to Canterbury. This aligns this project with the Pegasus Village approach.

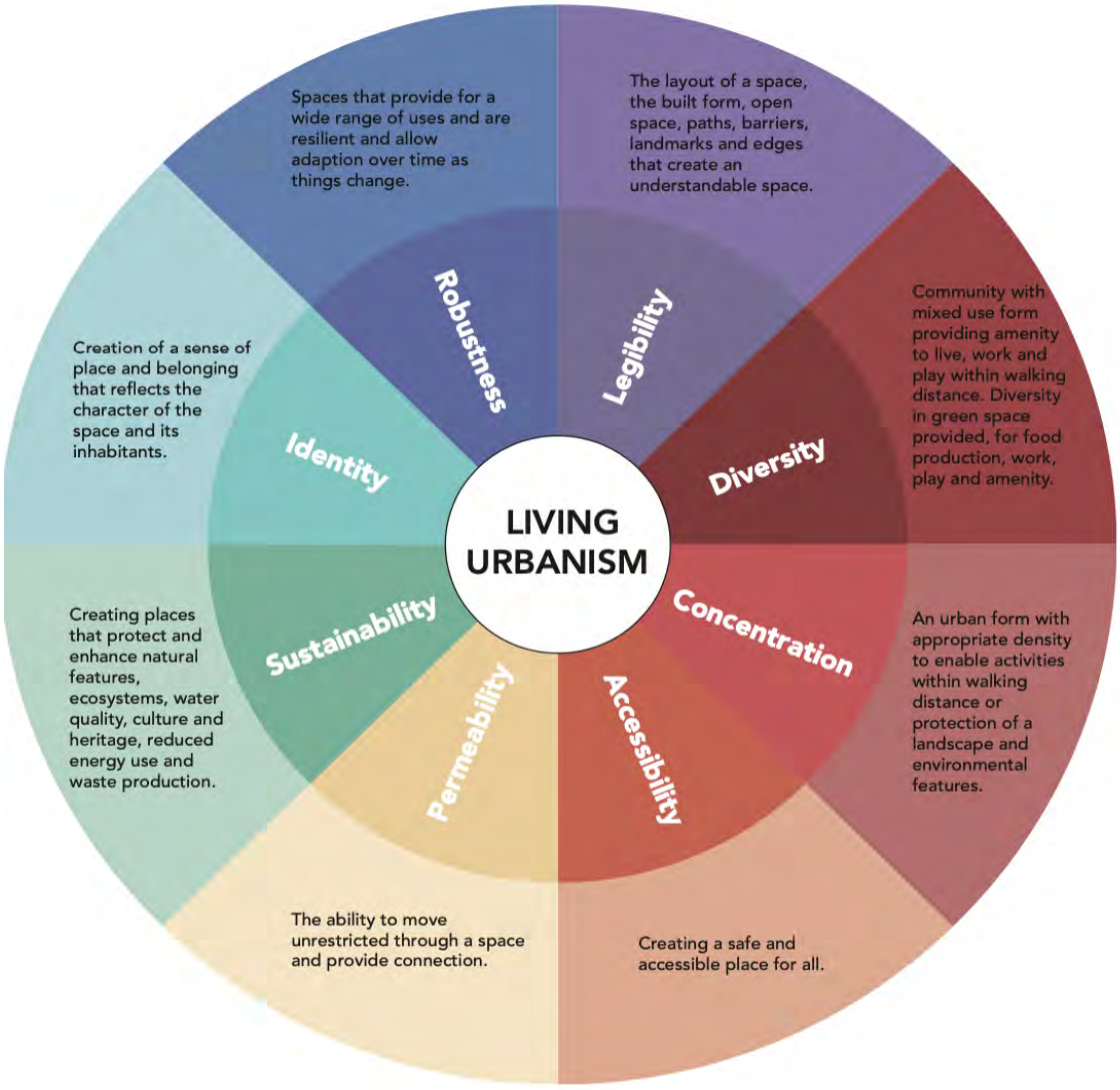


FIGURE 3. URBAN DESIGN PRINCIPLES

1.5 The Development Proposal and Rezoning and ODP

DEXIN is proposing to rezone the rural property at 1250 Main North Road to include it within the Special Purpose Zone (Pegasus Resort) (SPZ(PR)). In addition, two new activity areas are proposed to provide for a range of agricultural tourism activities and a limited amount of medium density residential activities.

An outline development plan and proposed site development plan has been prepared for the area. The proposed plan includes terraced residential dwellings on the north, east and south site boundaries surrounding a central market area and open spaces, with parking and vegetated bunding on the western boundary with Main North Road. The Taranaki stream would be bounded to the south by the marketplace terraces and be enhanced through planting. Amenity access across the stream via walkways and footbridges are proposed. One vehicle crossing of the stream is proposed to the west of the site.

FIGURE 4. PROPOSED OUTLINE DEVELOPMENT PLAN

Part B The Design Proposal and Process Assessment -

Design basis for ODP and Indicative Comprehensive Development Plan / Guidelines

2.1 Receiving Environment

Pegasus Mākete sits mid-way between Christchurch and the Waipara wine district. It is on the State Highway collecting passing business on its way to or from Hamner Springs and Kaikoūra . It is also an easy 25 Km drive from Christchurch. This location has the perfect conditions to be a visitor destination and also a Gateway opportunity for Pegasus Town. It has around 18000 vehicles passing the site daily (**Figure 5**).

The land has been farmed for generations but sits within the silent file area and relatively close to the significant Kaiapoi Pa. At a distance there are Views west to the Alps and Aoraki (Mt. Cook) and to the North west Maukatere (Mt Grey).

The site offers the opportunity to be a landmark for Pegasus Town and Golf Course being at the intersection of Pegasus Boulevard and State Highway. Pegasus would benefit from this marker. There is the opportunity to connect this site to the pathways network that runs through the Pegasus Golf Course development giving accessibility to the wetland lake and beach at Pegasus as well as the new amenities proposed for the Golf Course.

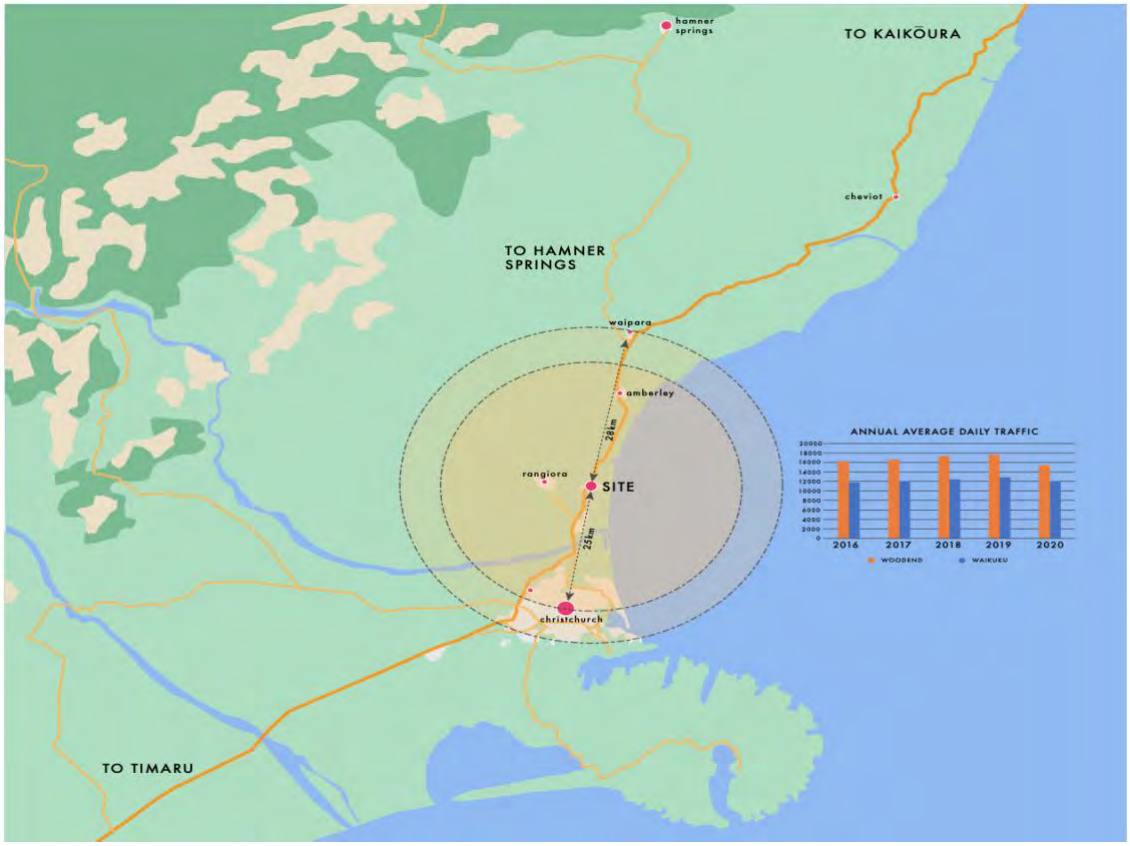


FIGURE 5. WIDER CONTEXT

2. 2 Existing Site Conditions

Figure 6 Illustrates the existing conditions on site. The Stream has been engineered at some point and apart from the Northwest corner, it is devoid of riparian planting. The landscape and ecology reports cover the terrestrial landscape and aquatic condition of the stream in detail. The tree cover to the Northwest is exotic planting (orchard) and appears to have heirloom varieties. To the south of the site is shelter-belt planting.

We have identified what appear to be historic foundations from the original flour mill.

The house appears to be post war construction and isn't significant from a Heritage perspective. The area south of the stream is largely dipping from 9m to 6 m in the

North East corner of the Site where the environmental quality of the stream is enhanced by the existing pocket of trees and planting.

FIGURE 6. EXISTING SITE PLAN

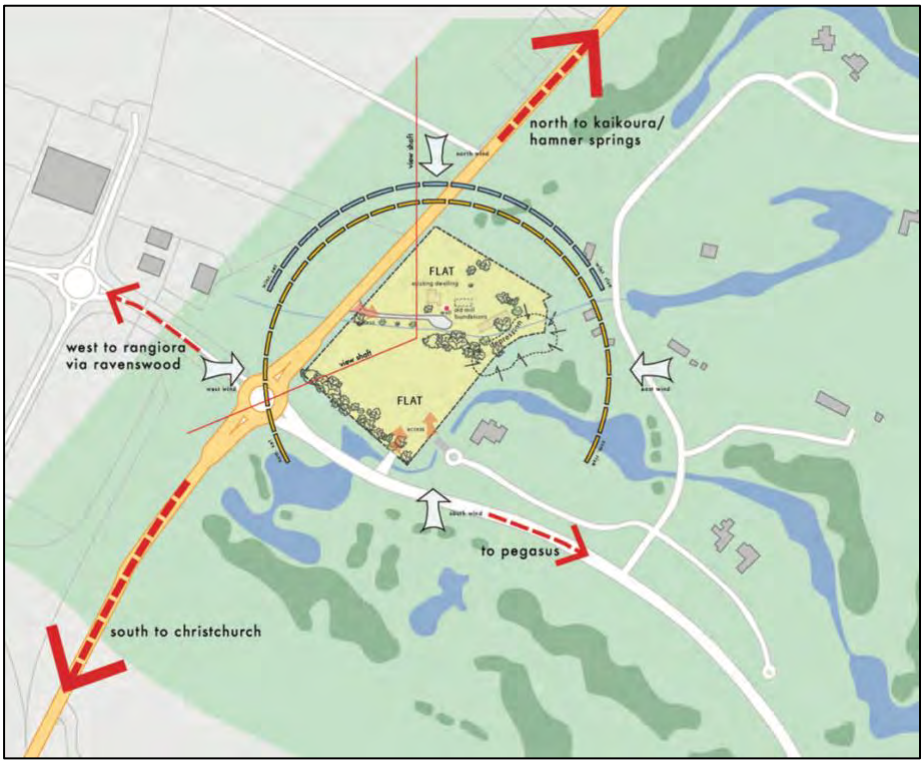


FIGURE 7. EXISTING SITE ANALYSIS

2.3 Site and surrounding features

The site is an approximately 3.05 ha rural block located on the corner of Main North Road (State Highway 1) and Pegasus Boulevard (**Figure 1**). The site is bound to the

west by Main North Road (State Highway 1), to the southeast and northeast by large lot residential Lots and to the north, south and east by Pegasus Golf Course. A single dwelling is present on the site, with several sheds located to the east of the house, backing onto the stream.

The site is largely flat, generally following a gentle gradient towards the north-eastern corner. The majority of the site is in pasture, with mature poplars forming wind breaks along the southern, northern and parts of the eastern site boundary. Mature pine, gum, macrocarpa and willow trees are present within the centre of the site, alongside sections of the stream and following some fence lines. A small orchard is present in the northeast corner, to the south of the stream. The Taranaki Stream, a tributary of Rakahuri / Ashley River, bisects the site. This is one of the major features of the site and the only area that has strong ecological value which can be enhanced further.

The stream is a spring-fed plains stream and originates near the intersection of Smarts Road and Rangiora Woodend Road, approximately 5km upstream of the site. Taranaki Stream enters the property through culverts beneath Main North Road approximately mid-way along the western property boundary, draining through the site to exit from the north-eastern corner of the. An incised and straightened drain also follows the northern property boundary and converges with the stream near the north-eastern site boundary .

No ecological overlays under the proposed WDP apply to the site. The stream through the site is identified in the proposed WDP as subject to esplanade provisions. The stream, as a tributary of Rakahuri/Ashley River, is identified as a site and area of significant to Māori (SASM) containing Mahinga Kai environs, habitats and taonga species (SASM 025). A wāhi tapu site (SASM 006) is also identified in the vicinity.

2.4 Site history

Historic aerial photographs of the site are available from 1942 (see **Appendix A0 of the Ecology Report**). The photos illustrate that the Taranaki Stream upstream of the site (west of Main North Road) and through the western half of the site was very

straight and channelised. The northern drain can be seen as a shallow depression at this time too. Several large trees are present adjacent to the stream near the house and to the east of the farm sheds and the orchard appears to be established. Few changes within the site are evident through to current day, with the exception of the shelterbelt poplars being planted between 2000 and 2004. In 2000 an ornamental pond is evident within the lifestyle properties immediately northeast of the site and extensive planting of these properties had occurred. By 2008 the Pegasus golf course development is underway, with active earthworks occurring surrounding the site, including the formation of the ponded water features that form part of the stormwater management for the golf course and associated residential developments.

By 2017 the Ravenwood retail and residential subdivision is underway to the west of Main North Road. As part of this development, the channelised Taranaki Stream was realigned to form a naturalised, meandering stream channel. It is understood to have been realigned closer its historic alignment (PDP 2015). Riparian replanting of the realigned watercourse has also occurred.

The site is blessed with many assets besides its State Highway location. It is surrounded on three sides (North, East and South) by Pegasus International Golf Course. It is dissected by the Taranaki Stream. It is a flat and easily developed site but with the opportunity to rewild the stream and create a waterbody that increases biodiversity and mahinga kai. On the stream is the remains / foundations of the original flour mill for the District. There are two existing access routes into the site from the west. Adjacent properties and significant planting protects the site from prevailing easterly winds

2.5 Vision

From the site analysis we defined a Vision for the site that would be tested by other specialists: Cultural, Economic, Traffic, Three Waters, Landscape, Architectural and Ecology. We proposed a basic structure plan for testing that created two development areas. Around the North, West and Southern edges of the site we

proposed medium density golf course housing to integrate into the Golf Resort environment. The balance of the site would be for the Tourist and Visitor experience.

FIGURE 8. CONCEPT SKETCH

We fleshed this out with a Simple schematic of the built environment. The elements identified were:

- **Local Market Wine Tasting and Artisan Food:** We see the foundation of this site as being a local farmers market. We have identified Matakana Market as a precedent. The market can take advantage of the local and proposed landscape features. The market would be supplemented by visitor attractions aimed at the families and would showcase local artisan wines, food and art/craft products.
- **Agricultural Heritage:** There is the opportunity to preserve and possibly celebrate the original water and wind powered mill where local grains could be processed.
- **Mahinga Kai** could be a strong educational feature along a re-wilded stream along with native and exotic edibles and medicinal plants. Kai would be a

strong educational feature. There would be wellbeing opportunities, events and weddings, as well as overnight accommodation.

- **Art and Craft:** Opportunities to learn, watch or purchase locally made art and craft.
- **Educational:** We see education as a large part of this experience. We have become distant from where our food comes from and how we can produce it in a more sustainable way. There isn't any other farm and food experience opportunity in the wider area. This is also an opportunity for learning about nature and sustainable practices both outdoors and under cover. Ideal for schools, clubs and Universities to use for learning purposes.
- **Family Entertainment:** There is a lack of outdoor family entertainment within Canterbury. We intend that entertainment that is fun and educational is delivered as part of the development offering: this includes every aspect of rural and pre agricultural opportunities expressed in active play.
- **Relaxation Zone:** For the adult visitor the opportunity for relaxation, enjoying local hospitality, massage, yoga and craft classes. This all asset in an agrarian landscape.
- **Workshops and Events:** This area has a deeper history can be represented not only through mahinga kai but in weaving, carving and greenstone and traditional food. Engagement with iwi will be important in respect to the deeper history and how this story could be told. This can be reinforced by tradition crafts of food production, furniture making, jewellery right through to artists' studios and galleries. The Commons and Village green can also host one off events.

It would be the aim to make this the major attraction between Christchurch and Kaikoura. This will reinforce visitors to Pegasus, Pegasus Golf Course and Pegasus Hot Pools and Village. To the North and east the site is ringed by Golf course housing further integrating this development with the Golf Course.

FIGURE 9. MOOD BOARD – EVENTS & ACTIVITIES

FIGURE 10. MOOD BOARD – EVENTS & ACTIVITIES

FIGURE 11. MOOD BOARD – MARKET AESTHETIC

2.6 Architectural Language for Proposed Buildings

The intent is to draw on traditional New Zealand architectural language, form and materials in a more modern but authentic way. The design to draw from rich language of cottages, barns, wool stores, mills and grain silos.

FIGURE 12. MOOD BOARD – NZ BUILDING TYPOLOGIES

Part C: Design Proposal

3.1 The Design Process

This was based on Enquiry by Design which is an iterative re-shaping of the original Vision and reshaped by technical input (3 Waters, Ecology, Traffic, Landscape assessment, Urban Design assessment and Consultation with WDC).

FIGURE 13. MASTERPLAN BASED ON URBAN DESIGN ASSESSMENT AND PROPOSAL.

FIGURE 14. MASTERPLAN WITH FLOOD RISK.

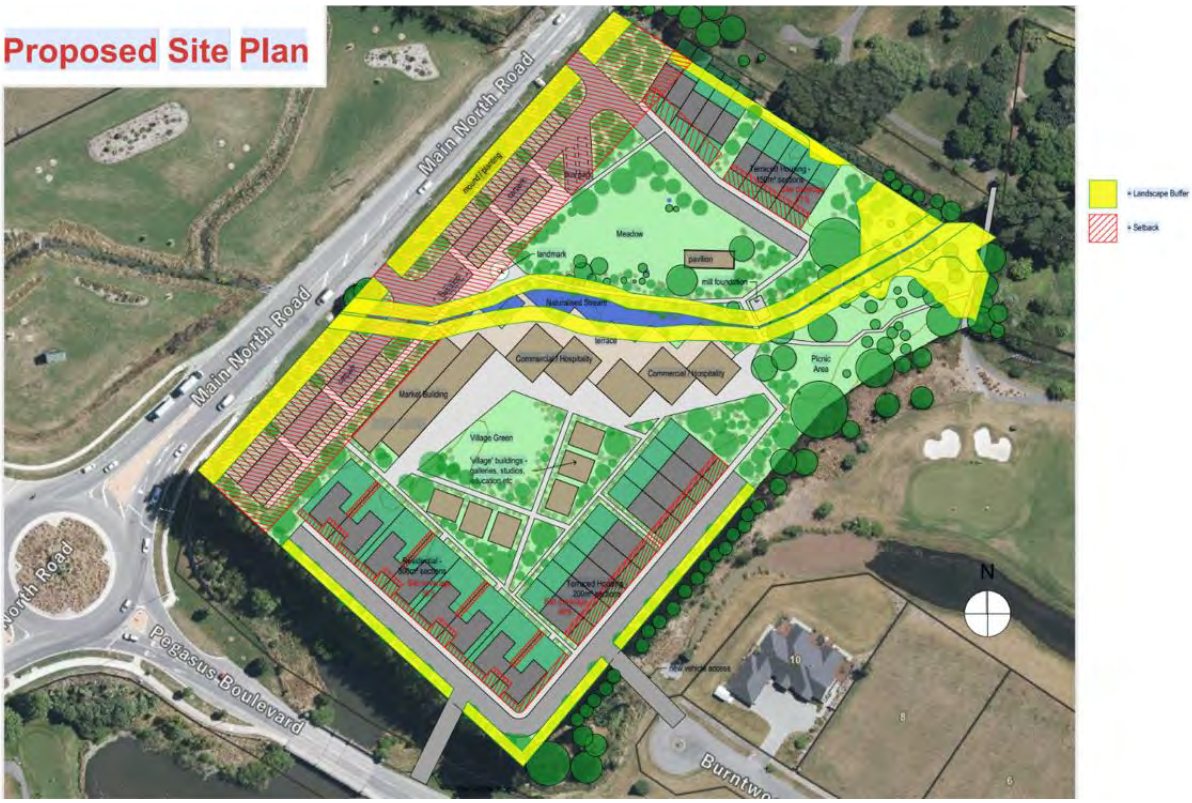


FIGURE 15. MASTERPLAN WITH INPUT FROM LANDSCAPE ASSESSMENT

FIGURE 16. INPUT FROM 3 WATERS, AND ECOLOGIST SHOWING AN APPROACH CALLED ESD ENGINEERING TO STORMWATER WHICH PRESERVES AND ENHANCES THE ECOLOGICAL CAPITA; OF THE SITE.

3.2 THE PROPOSED MASTERPLAN DESCRIPTIVE

The Key features in the Masterplan include:

- A Residential fringe to the North, East, and South of the site. The proposed zoning is MDSR which will allow various housing typologies; townhouses; terraced housing; apartments. The rules allow for buildings up to 3 storeys. This allows for a variety of housing types not available in the area
- The urban form is based on the perimeter block. The south of the stream accommodates the Village. The Built form creates a perimeter of buildings with a village green within the perimeter. The concept is buildings set within a rural landscape.
- State Highway Edge consists of a landscape buffer, swale, and parking for the Commercial village. This not only shelters the Village from the disturbance from the state Highway but keeps cars and buses away from the bulk of the open space and commercial uses.

- Artisan Row and the stream is fronted on the southern boundary in part by a series of small sheds providing for hospitality, wine tasting and artisan and craft operatives, A timber “wharf” provides outdoor north facing area for extending the artisan functions. (outdoor dining) . The deck allows the stream to meander along and under the structure. The artisan buildings take the form of boatsheds on a deck or mai mai structures.
- The Market is core to the success of this area. This is housed in an elegant shed which, although modern, fits within the landscape.

- The commons are contained by housing to the North and the Stream to the south. The heritage of the buildings can be celebrated here, and the Commons provides an area for the enjoyment of the residents and visitors alike.

3.2 The Proposed Masterplan Assessment

We have used the design principles (**Figure 3**) to assess the performance of the proposed Masterplan in regard to international best practice Urban Design Principles. The assessment is based on information from the Technical Reports and the intent of the development:

- Diversity / Variety

  This is a Gateway development to Pegasus Town and Ravenswood. It provides a mix of visitor uses and housing opportunities that are yet unavailable in Pegasus Golf Course Resort or in the Ravenswood commercial development. A true Live /work/play area that combines urban fabric with green space and pedestrian prioritised public realm. Within this small area are numerous economic opportunities as well as a potential variety of housing opportunities, The commercial development proposed is unique in Canterbury and will not only provide for residents of Woodend/ Pegasus and

Ravenswood but also for residents and visitors in the Wider Canterbury environment

- Concentration

  Concentration of visitor uses and residential based loosely of perimeter block allows for a large percentage of the site to remain as landscape open space with amenity to form a village style community set within an agrarian landscape. A variety of uses that provide activity all year round further enhance the amenity for wider area.

- Accessibility/ Connectivity

  The ability to move safely, always, for all people through and around a neighbourhood. There is an opportunity to connect into the wider Pegasus network for walking, cycling and golf buggies. The site is on a bus route increasing accessibility to the amenity provided. It is proposed that two left in left out accessways come off the State Highway and that the main entry is off Pegasus Boulevard. The optimum situation would be one main entry and exit point from the State Highway and minor accessway from Pegasus Boulevard. This is under discussion with Waka Kotahi.

- Identity

  The intent is to build on the strong architectural language that is found in rural New Zealand. The aim is to respect the past, celebrate the future and create a sense of place and belonging that reflects the character and identity of place. This is expressed in the architectural Report and Design Guidelines

- Robustness

  The design creates spaces and places that provide for a wide range of uses and are adaptable to new uses over time.

- Sustainability

  It should be the intent to create buildings and places that reduce the ecological footprint, enhance natural features, ecosystems, water quality, culture and cultural and historic heritage. There should be rules and guidelines that expect reduce energy, waste, and provide buildings that age well over time. There is the opportunity to enhance the landscape and biodiversity.

- Community

  Pegasus/Ravenswood/ Woodend has long been a welcoming community to diverse range of residents, workers, and visitors. However there have been a lack of employment opportunity or a place to gather and celebrate. It is the intent that Pegasus Mākete will become that meeting place and a place to hold local fairs, markets, and events. The design allows for this to happen. The proposed housing also brings in a variety of higher density typologies that do not yet exist in the area.

- Cultural Heritage

  There are remnants of what we believe to be the first flour mill in the district, Ravens Mill. It is proposed to preserve and interpretate this history. There have been discussions with local Iwi and their report expresses their opinion on the development and focuses on the enhancement of the natural environment, stormwater and protection and development of mahinga kai that once would have been present the stream and wider area.

Part D: Summary and Recommendation

It is my opinion that the variation to the Special Purpose Zone providing for the land uses of the Mākete are complimentary to Pegasus Golf Course. The Policies. Objectives , Rules , ODP and Design Guidelines will encourage a development in general accordance to the indicative masterplan.

The proposal provides a better gateway to Pegasus Town and the coastal amenities and does not have any negative economic impact on other local commercial areas.

James Lunday DINZ

Dip. Arch, B.A.Hons(First), B.Plan. Hons(First), Dip. UD (Oxford Brookes), M.A.UD Distinction (Oxford Brookes),

Principal

Common Ground Southern Ltd.

james@jlud.co.nz

+64(0)21790770

Aotearoa

Appendix D:

Integrated Transport Assessment

Pegasus Mākete
Special Purpose Zone Expansion
Integrated Transport Assessment

DEXIN Investment Limited

Contents

1.	**Introduction**	**1**
2.	**Background**	**2**
3.	**Existing Land Use and Transport Environment**	**3**
3.1	Locality	3
3.2	Zoning	3
3.3	Existing Land Use	4
3.4	Surrounding Roads	4
3.5	Existing Traffic Volumes	5
3.6	Road Safety	6
3.7	Walking Facilities	7
3.8	Cycling Facilities	7
3.9	Public Transport	9
4.	**Future Receiving Environment**	**10**
4.1	Pegasus Town	10
4.2	Ravenswood Village	10
4.3	Woodend Bypass	11
5.	**Rezoning Proposal**	**12**
6.	**Accessibility**	**14**
7.	**Travel Characteristics and Trip Generation**	**15**
7.1	Trip Generation	15
7.2	Pegasus Mākete Trip Composition	18
7.3	Pegasus Mākete Trip Distribution	19
7.4	Trip Assessment	21
8.	**Effects on Transport Network**	**23**
8.1	Modelling Approach	23
8.2	Understanding Model Results	23
8.3	Access Intersection performance	24
8.4	State Highway 1/ Pegasus Boulevard roundabout performance	25
9.	**Strategic Planning Framework**	**27**
9.1	Regional Policy Environment	27
9.2	Local Policy Environment	30
10.	**Conclusion**	**32**

Tables

Table 3-1 Traffic counts from Main North Road (SH1) and Pegasus Boulevard intersection (April 2022) 6
Table 7-1 Frontage Road Peak Hour Flows 16
Table 7-2 Trip Generation 18
Table 7-3 New Trips Distribution 19
Table 8-1 Level of Service (LOS) general descriptions 24

Figures

Figure 3-1 Expansion area for Pegasus Mākete 3
Figure 3-2 Waimakariri District Plan zoning map. 4
Figure 3-3 Daily Traffic Flow – Pegasus Boulevard 5
Figure 3-4 Cycle facilities in the area (sourced: Urban Cycleways Programme) 8
Figure 3-5 Pegasus bus routes 9
Figure 4-1 Ravenswood Masterplan 10
Figure 4-2 Woodend Bypass – Short Eastern Alignment 11
Figure 5-1 Proposed site plan 12
Figure 7-1 Existing Turning Movements Weekday (left) Sunday (right) 15
Figure 7-2 Waka Kotahi Designation for the Woodend Bypass 17
Figure 7-3 Inbound Trips Distribution (New trips only) 20
Figure 7-4 Outbound Trips Distribution (New Trips only) 20
Figure 7-5 Inbound Trips Weekday 21
Figure 7-6 Inbound Trips Sunday 21
Figure 7-7 Outbound Trips Weekday 22
Figure 7-8 Outbound Trips Sunday 22
Figure 8-1 Access Intersection 2 (left) and 3 (right) 25
Figure 8-2 SH1/ Pegasus Boulevard roundabout layout 25

Appendices

Appendix A. Pegasus Resort ITA

Appendix B. Modelling Results

Pegasus Resort Special Purpose Zone Expansion Integrated Transport Assessment

Quality Assurance Information

Prepared for	DEXIN Investment Limited
Job Number	SAECLE-JOO2
Prepared by	Daisy-Bea Scrase, Graduate Transportation Planner Jay Baththana, Principal Transportation Engineer
Reviewed by	Dave Smith, Technical Director

Date issued	Status	Approved by
17 November 2022	FINAL	DAVE SMITH
20 June 2022	DRAFT	DAVE SMITH

This document has been produced for the sole use of our client. Any use of this document by a third party is without liability and you should seek independent advice. © Ableу Limited 2022. No part of this document may be copied without the written consent of either our client or Ableу Limited. Refer to https://www.ableу.com/output-terms-and-conditions-1-1/ for output terms and conditions.

1. Introduction

DEXIN Investment Limited (DL) wishes to expand the proposed Pegasus Resort Special Purpose Zone to 1250 Main North Road (currently zoned Rural) to develop a tourism focused mixed use facility named Pegasus Mākete. The site is located at the eastern corner of the SH1/ Pegasus Boulevard/ Bob Robertson Drive roundabout.

The expansion will require a modified access strategy to the wider resort development. Based on the proposed activity within the expansion area, one or more vehicle accesses on Main North Road and one access on Pegasus Boulevard is proposed.

DL commissioned Abley Limited (Abley) to prepare an Integrated Transport Assessment (ITA) to accompany the plan change application. The proposed plan change will be referred to as the Pegasus Mākete in this document.

The purpose of this ITA is to evaluate the potential transportation related effects of the rezoning on the future transport network. The ITA has been prepared using the guidance specified in the 'Integrated Transport Assessment Guidelines' published by Waka Kotahi NZ Transport Agency[1].

[1] RR 422 Integrated transport assessment guidelines (nzta.govt.nz)

2. Background

In 2005, resource consent was granted to develop an 18-hole golf course, a village green including clubhouse, gym, restaurant, café and service buildings and 98 residential lots on the Mapleham block and the Special Purpose Area adjacent to Pegasus Town.

These resource consents (RC055641 and RC055642) were issued, with a further consent for the Mapleham subdivision (RC075633). There have been a number of variations following the granting of these consents. The Mapleham residential lots and the golf course covers the area on both the north and south sides of Pegasus Boulevard, the main access road to Pegasus Town.

The Pegasus Resort site currently falls within both the Pegasus Outline Development Plan (Map 142 of the Waimakariri District Plan (WDP)) and the Mapleham Outline Development Plan (Map 147 of the WDP). A previous ITA prepared for the Pegasus Town Limited Mapleham Residential Development and Golf Course (dated September 2005) is used to inform this ITA where applicable.

In 2019, Pegasus Golf Ltd applied to the Waimakariri District Council for resource consent (RC195127) to construct and operate a three-storey hotel comprising of fifty rooms, a restaurant and conference centre and associated carparking. Resource consent was granted in 2020. The development would be located on three vacant lots on Taerutu Lane, to the northwest of the golf club buildings.

In 2019, Sports & Education Corporation Limited (SAECL) applied to rezone the existing Pegasus Golf and Sports Club as a Resort zone within the WDP to include hotel/ apartments visitor accommodation, hot pools/spa tourism, conference and event centre, residential apartments, commercial units and other ancillary uses. The plan change area is approximately 14ha and located on land mainly occupied by the golf course and club house. The application is currently in consultation.

3. Existing Land Use and Transport Environment

3.1 Locality

The Pegasus Mākete is located at the eastern corner of the SH1/ Pegasus Boulevard/ Bob Robertson Drive roundabout leading to Pegasus Town subdivision. Pegasus Town is located just north of Woodend and opposite Ravenswood, a new commercial and residential subdivision located on the western side of State Highway 1. The Pegasus Mākete site at 1250 Main North Road is currently accessed by Main North Road and abuts Pegasus Boulevard.

State Highway 1 is a National Road and is subject to a 70km/h speed limit in the vicinity of the site. Pegasus Boulevard is a Local Road under the roading hierarchy set out in the WDP and is subject to a 70km/h speed limit.

Pegasus Boulevard intersects with State Highway 1 to the northwest of the site. East of the State Highway, the surrounding land use is primarily residential and recreational (golf course). The location of the site in the context of the wider area is shown in Figure 3-1.

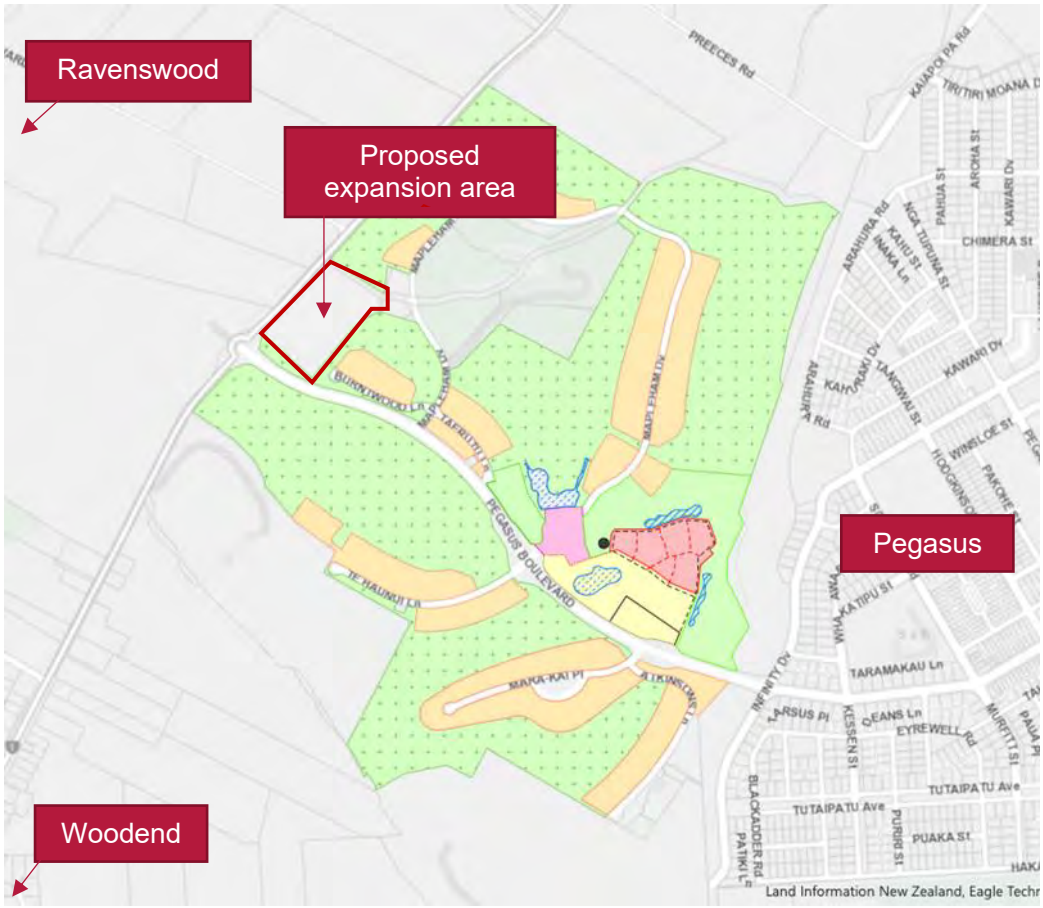


Figure 3-1 Expansion area for Pegasus Mākete

3.2 Zoning

The site, 1250 Main North Road is currently zoned as Rural Residential. The area surrounding the site is a combination of Residential, Business and Rural Pegasus zones.

The area immediately east of Pegasus Mākete under the WDP, is subject to rural zoning as shown in Figure 3-2. The Mapleham Rural 4B Zone covers approximately 44 hectares and provides for the subdivision with a maximum of 35 allotments with a minimum area of 1 hectare. The area zoned south of Pegasus Boulevard, Rural Pegasus covers approximately 36 hectares and provides for subdivision allotments with a minimum area of 4 hectares.

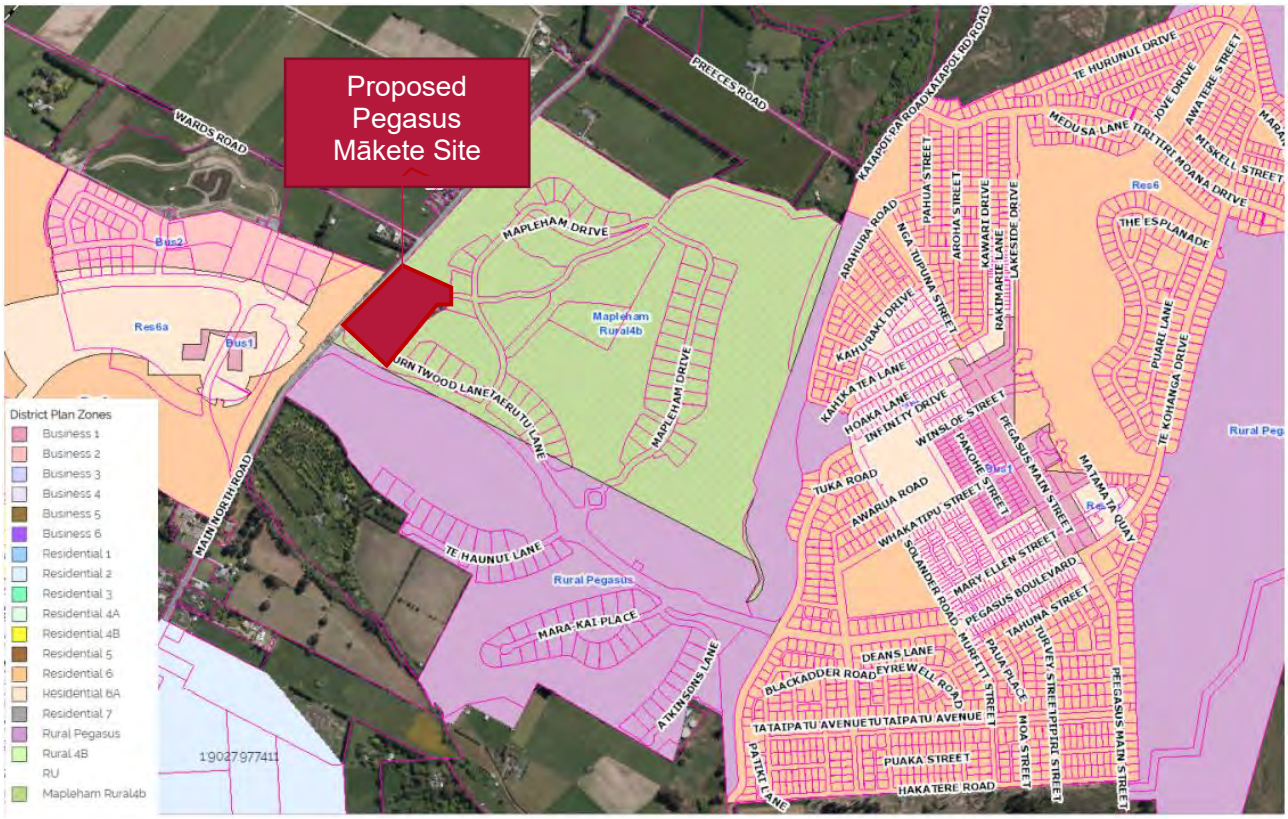


Figure 3-2 Waimakariri District Plan zoning map.

3.3 Existing Land Use

The Pegasus Mākete site is currently occupied by a residential dwelling.

3.4 Surrounding Roads

The site has frontage to Pegasus Boulevard along its southern boundary and Main North Road, State Highway 1 along its western boundary. The site is located in the eastern corner of the roundabout at the intersection of State Highway 1, Pegasus Boulevard and Bob Robertson Drive. Maplewood Drive and Burntwood Lane are neighbouring roads which will provide pedestrian and cyclist access to Pegasus Mākete.

Main North Road (State Highway 1)

State Highway 1, Main North Road is managed by Waka Kotahi. The road has a posted speed limit of 70km/h in the vicinity of the site and is a National State Highway. In the vicinity of the site, Main North Road runs north-south with a single carriageway with one traffic lane in each direction. On approach to the Pegasus Boulevard roundabout intersection, Main North Road widens to provide a flush median and two approach and circulating lanes in each direction.

Pegasus Boulevard

Pegasus Boulevard runs in a southwestern orientation between Main North Road to the north (approximately 0.1km north of the site) and Infinity Drive (approximately 1.1km south of the site). Pegasus Boulevard acts as the main conduit of traffic to and from Main North Road and Pegasus Town.

The segment of Pegasus Boulevard between Main North Road and Infinity Drive, to which the site abuts, is a single carriageway with one traffic lane in each direction. On approach to the Main North Road intersection, Pegasus Boulevard widens to provide a left turn lane and a combined through movement/right turn lane. The carriageway is divided by a centreline. Edge lines and shoulders (approximately 0.6m-1m wide) are located on both sides of the carriageway. Footpaths are located along both sides of Pegasus Boulevard between Mapleham Drive and Infinity Drive and along the westbound traffic lane between Mapleham Drive and Main North Road.

The WDP classifies Pegasus Boulevard as a Local Road. The posted speed limit is 70km/h. Within the Waka Kotahi One Network Road Classification (ONRC) system, Pegasus Boulevard is classified as a Primary Collector. According to the ONRC classification “These are locally important roads that provide a primary distributor/collector function, linking significant local economic areas or population areas”.

Mapleham Drive

Mapleham Drive will have pedestrian and cyclist access to the east of the site. Mapleham Drive forms a loop road to the North of Pegasus Mākete. Mapleham Drive is classified as a Local Road. The ONRC classifies Mapleham Drive as a Low Volume Access Road.

Burntwood Lane

Burntwood Lane is a cul-de-sac which will provide vehicle, pedestrian and cyclist access between Pegasus golf resort and the Pegasus Mākete. The ONRC classifies Burntwood Lane as a Low Volume Access Road.

3.5 Existing Traffic Volumes

Traffic flow data for four WDC count stations along Pegasus Boulevard last surveyed in 2018 were provided by WDC. Figure 3-3 shows that the Average Annual Daily Traffic (AADT) of Pegasus Boulevard (just east of SH1) is 6,000-6,500 vehicles per day (vpd) during the week and 5,200 vpd on a weekend as shown below. The peak hour volume was quite similar across the week.

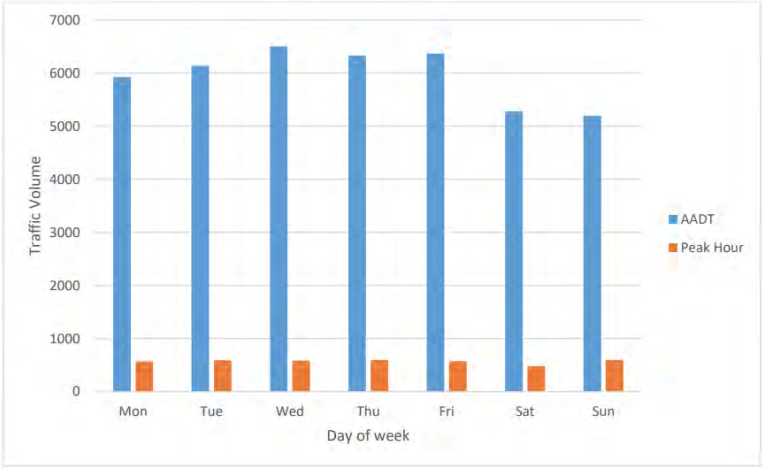


Figure 3-3 Daily Traffic Flow – Pegasus Boulevard

Based on the above traffic flow information, it was decided that a weekday evening 4-6pm and Sunday 12-3pm were the most appropriate time periods for a traffic survey to inform the assessment. As a result, traffic surveys were undertaken at the Main North Road/Pegasus Boulevard roundabout in the afternoon peak (4-6pm) on Thursday 7 April 2022 and the Sunday peak (12-3pm) on 10 April 2022. At the time of the survey, New Zealand was in Covid-19 alert level 1 where no domestic travel restrictions were imposed. However, there was very limited overseas tourism activity.

The estimated peak hour traffic volumes for the frontage roads are summarised in Table 3-1.

Table 3-1 Traffic counts from Main North Road (SH1) and Pegasus Boulevard intersection (April 2022)

Frontage Road	Weekday Peak Hour		Weekend Peak Hour	
	Eastbound/ Southbound	Westbound/ Northbound	Eastbound/ Southbound	Westbound/ Northbound
Pegasus Boulevard	496	297	367	351
Main North Road (MNR)	498	675	628	606

3.6 Road Safety

A search of the NZ Transport Agency Crash Analysis System (CAS) database for the period of 2017 to 2021, identified 2 injury crashes and 18 non-injury crashes in the vicinity of the site frontage. However, all crashes occurred within 50m of the roundabout.

The search area included

- Intersection of Pegasus Boulevard, Main North Road and Bob Robertson Drive (crash within 60m)
- Main North Road in front of the site (350m north of the roundabout)
- Pegasus Boulevard in front of the site (250m north of the roundabout)

The two minor injury crashes as well as seven non-injury crashes were caused by vehicles losing control whilst turning at the roundabout. A further five crashes were caused by incorrect lane changing on approach or within the roundabout. These types of crashes are common at multi-lane roundabouts carrying a significant volume of traffic. However, motorists may be entering the roundabout too fast given the existing speed limit and may be losing control whilst manoeuvring. None of the crashes involved pedestrians or cyclists.

The Safe and Appropriate Speed for the State Highway 1 in the vicinity of the roundabout is 60 km/h and 50 km/h for Pegasus Boulevard. Collective Risk, Personal Risk and Infrastructure Risk Rating for both frontage corridors is Low Medium. Both corridors are in the top 10% DSi Saving Network Sections (Challenging conversations, which means these roads have strong safety benefits associated with lowering the speed limit to align with the SAAS. The name challenging conversations is used to describe this intervention category because operating speeds are typically (but not always) considerably higher than the SAAS (Safer Journeys Risk Assessment Tool (Mega Maps) Edition II). Lowering the speed limit may ensure motorists are negotiating the roundabout at appropriate speeds.

Crossing the State Highway

The crash history does not indicate an obvious safety concern at the SH1 roundabout. During the site visit it was observed that crossing the State Highway was problematic due to the high volume of traffic and vehicle speeds. Currently few pedestrian/ cycle movements exist however, as Ravenswood and Pegasus subdivisions grow more pedestrian and cycle usage is anticipated. Therefore, an appropriate pedestrian/ cycle crossing may be required for such users to safely cross the State Highway.

3.7 Walking Facilities

The Pegasus Mākete site is well connected to the pedestrian network of the Pegasus Town Residential Development. Pegasus Boulevard has footpaths on both sides of the road in the vicinity of the site, with a footpath only on the western side of the road close to the site entrance on Pegasus Boulevard. Mapleham Road and Burntwood Lane both have footpaths on either side of the road and will have pedestrian and cyclist accessways to Pegasus Mākete.

No footpaths are provided along Main North Road except around the Pegasus Boulevard roundabout. The Main North Road/Pegasus Boulevard roundabout has pedestrian refuge islands with kerb cut downs on three approaches to accommodate crossing pedestrians. There is no pedestrian crossing on the northern approach of Main North Road which the site abuts to. It is not expected that visitors will arrive on foot from Main North Road due to it being a State Highway, therefore there will be no specific pedestrian access off Main North Road.

3.8 Cycling Facilities

The Waimakariri District has two major cycle routes; the Rangiora Woodend Path and the Rangiora to Kaiapoi Path, as shown in Figure 3-4. The Rangiora Woodend route consists of a 6.5km sealed off road shared path which connects residents of Woodend to Rangiora. It also provides a connection between Woodend and Kaiapoi and Christchurch via Rangiora and connects to other facilities such as the Woodend Beach path. An off-road shared path from Gladstone Park to Hakatere Road, Pegasus connects Pegasus to Woodend.

The Rangiora to Kaiapoi Path, also known as the Passchendaele Memorial Cycle-Walk Path, is an 8km off road shared path. It provides a connection from Rangiora to Christchurch via a link to the Christchurch major cycle routes. The northern end of the cycleway connects to the existing on-road facilities at Southbrook in Rangiora. The Waimakariri District Walking and Cycling Guide (2017 to 2022) does not detail any proposed major cycle ways in the immediate proximity of the site.

Figure 3-4 Cycle facilities in the area (sourced: Urban Cycleways Programme)

However, in the vicinity of the site there is some provision for cyclists. Connections between Ravenswood and Pegasus Town are facilitated by shared paths and crossing facilities at the Pegasus Boulevard / Main North Road roundabout. When conducting the traffic survey multiple cyclists were seen using the shared path and crossing facilities, and few cyclists were observed cycling through the roundabout.

Main North Road has sealed shoulders varying in width between 1.5m and 2.5m, however no cycle lanes are provided. Cycle lanes are marked on both the north and south approaches to the Pegasus Boulevard / Main North Road roundabout, which guide cyclists off the road onto a shared path. Refuge islands are provided on the eastern, southern and western approaches. The shared path extends west of Main North Road along Bob Robertson Drive to the Ravenswood development. Pegasus Boulevard does not have any formal cycle facilities, however there is a sealed path on the southern side that is typically 2.2m wide and could accommodate cyclists if used as a shared path.

An unsealed walking and cycling path between Gladstone Park and Hakatere Road, Pegasus started construction in 2019. This assists in providing an alternative cycle route between Ravenswood, the proposed development, Pegasus and Woodend that avoids use of Main North Road.

Within Pegasus Town, there are marked cycle lanes on Infinity Drive, Solander Road, Murfitt Street and Pegasus Boulevard (east of Infinity Drive) and several recreational paths around the edge of the golf course that connect residential areas.

3.9 Public Transport

The Pegasus Mākete is accessible by public transport. Two bus stops (northbound and southbound) are located approximately 50m south of the site along Pegasus Boulevard, near the intersection with Main North Road and are serviced by the following services also shown in Figure 3-5.

- Route 95 travels from Pegasus to the city every 30 minutes during the morning peak hours (about 6.30-8am), every hour thereafter and back from the city every hour (about 7.30-8.30pm).
- Route 97 travels between Rangiora and Pegasus with services every hour between 8am and 6pm.

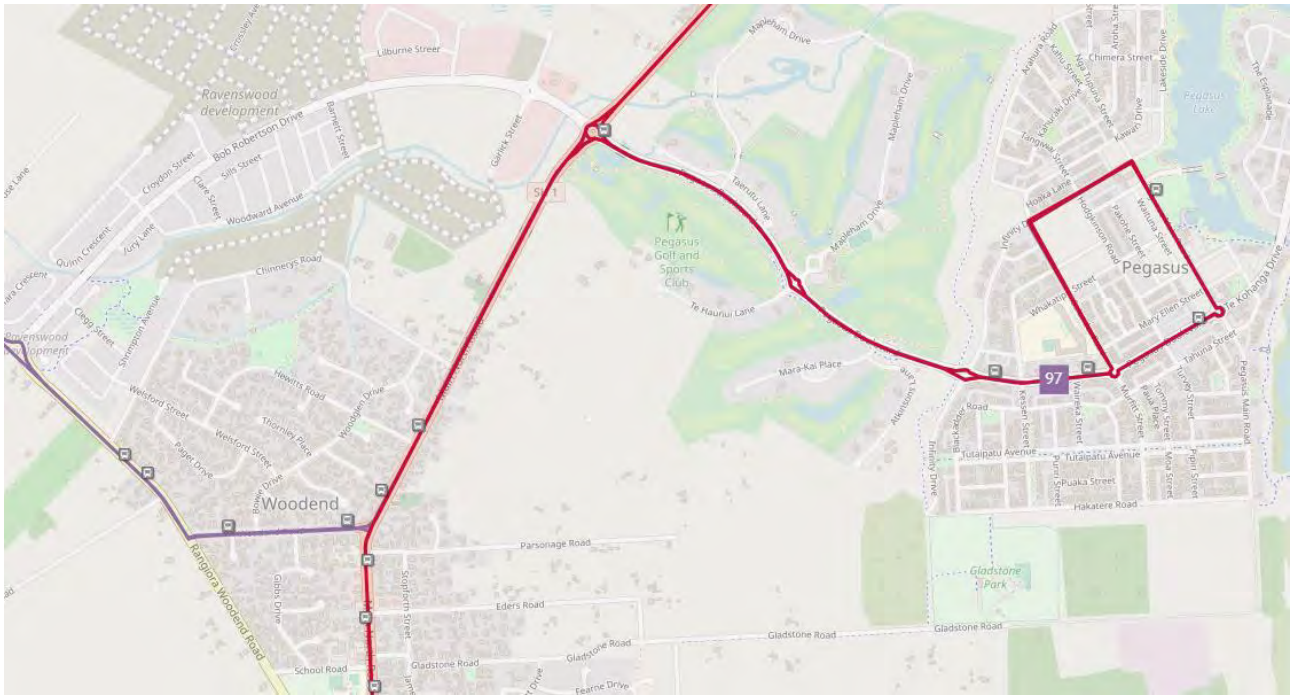


Figure 3-5 Pegasus bus routes

4. Future Receiving Environment

4.1 Pegasus Town

Pegasus Town is a residential subdivision to the east of the Pegasus golf course. Resource consent was granted circa 2006 to construct 1800 residential units to accommodate 4500 residents with a primary school, recreational parks, community facilities, commercial and retail offerings. Based on NZ Census 2018 data only 60% of Pegasus was occupied. Currently access to the subdivision is provided via Pegasus Boulevard however as the subdivision grows vehicle access to Kaiapoi Pa Road to the north and Gladstone Road to the south is anticipated.

4.2 Ravenswood Village

Ravenswood is a residential and commercial development located to the west of the Pegasus golf course. The total Ravenswood subdivision area is approximately 150 ha and includes 1,352 residential sections ranging in size from 310m² to 700m². The subdivision is bounded by the township of Woodend to the south, State Highway 1 to the east, Rangiora Woodend Road to the west and rural land to the north.

Access to the site is provided via the State Highway 1/Pegasus Boulevard roundabout and a secondary roundabout on the Rangiora Woodend Road. The roundabout on State Highway 1 will provide access to the commercial precinct of the subdivision. The Stage 1 of the Ravenswood subdivision is currently under construction.

The extent of the Ravenswood Subdivision project is shown in Figure 4.1 below.

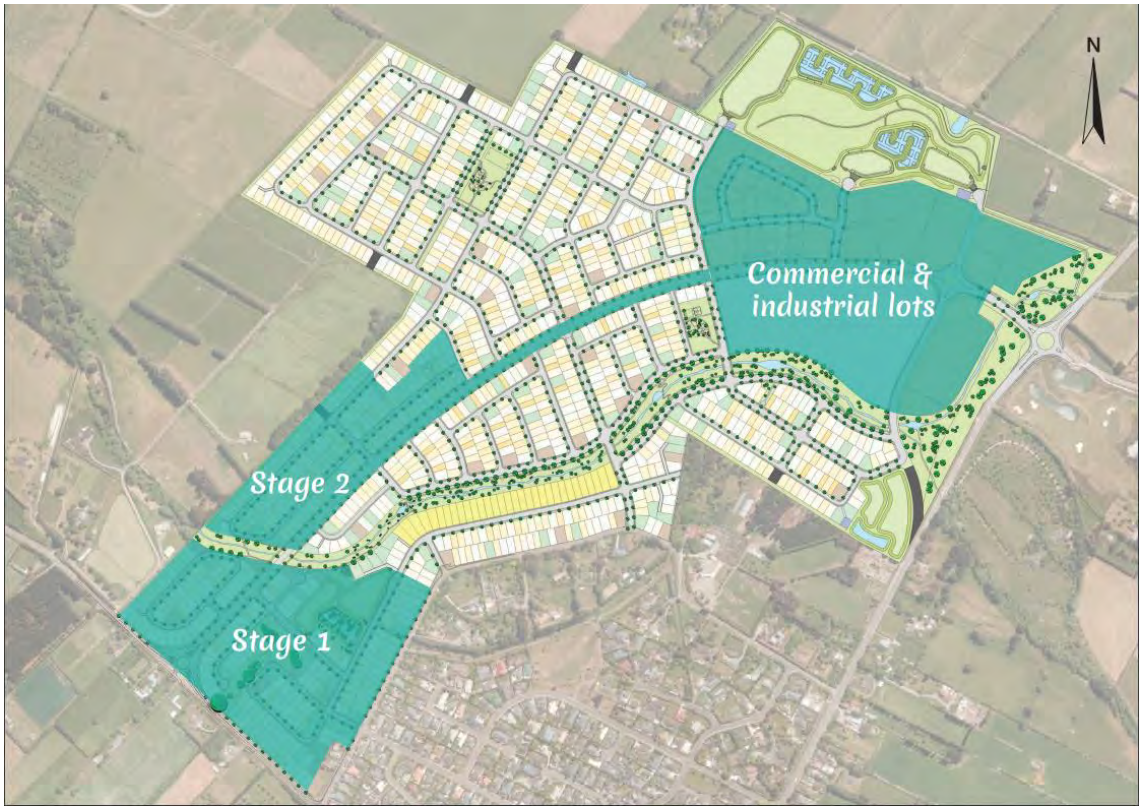


Figure 4-1 Ravenswood Masterplan

4.3 Woodend Bypass

Traffic volumes along State Highway 1 (Main North Road) through Woodend are expected to double over the next thirty years. The increase in traffic is due to an increase in residential developments in the area and an increase in long distance freight movements along the state highway. To accommodate this increase in traffic, a new section of highway that runs to the east of Woodend is planned by Waka KotahiNZ Transport Agency.

The new bypass will have four-lanes and will link in with the current motorway at Lineside Road and run to the entrance to Pegasus at the intersection of Pegasus Boulevard and SH1. The project aims to improve capacity and efficiency of traffic travelling through the Woodend corridor and improve interconnectivity between residents and businesses in Woodend, Pegasus, and Kaiapoi.

The bypass does not have a confirmed construction date, but the proposed bypass is shown in Figure 4-2.

Figure 4-2 Woodend Bypass – Short Eastern Alignment

5. Rezoning Proposal

The proposal seeks to rezone 1250 Main North Road from Rural Residential to Pegasus Resort. The rezoning would facilitate the development of Pegasus Mākete with the following recreational and hospitality offerings:

- Retail and hospitality activity.
- Market activity and galleries, studios and education activity.
- Outdoor recreational activities focusing on agriculture and livestock.
- Visitor accommodation.
- Medium/high density residential housing.

The concept layout for the Pegasus Mākete is shown in Figure 5-1.

Figure 5-1 Proposed site plan

Access Arrangement

Pegasus Mākete will have access to the wider transport network via Main North Road and Pegasus Boulevard. The site is expected to be serviced by four vehicle accesses as shown in Figure 5-1 . The four accesses will have turning restrictions as below;

- Access 1 – Left in left out only
- Access 2 – No right-turn out (all other movements permitted)
- Access 3 – All movements permitted
- Access 4 – Access to local residents and Pegasus Resort (all movements permitted)

An assessment of the intersections is included in Section 8 of this report.

The internal road network will link the new intersections on Main North Road and Pegasus Boulevard which would be beneficial to provide better circulation through the site and to separate recreational trips from residential trips.

Car parking, loading and manoeuvring space for the Pegasus Mākete will be provided on site with internal connectivity, however certain car parking areas may be restricted for the use of a specific activity. Vehicle accesses and parking layouts of the proposal will be designed to comply with WDC District Plan requirements and will be detailed at resource consent stage.

It is envisaged that pedestrian and cycle paths would run though the Pegasus Mākete/ Pegasus Resort linking the site to the existing shared paths/ footpaths along the wider road network.

6. Accessibility

Motor Vehicle

The site is well connected to the strategic road network via Pegasus Boulevard and Main North Road. The SH1/ Pegasus Boulevard roundabout has been designed to accommodate fully developed Ravenswood and Pegasus Town developments. The proposed Woodend Bypass and recently opened Christchurch Northern Motorway will further improve connectivity between the Resort and the Christchurch CBD and the International Airport where most visitors are expected to arrive from or depart to.

An assessment of the nearby intersections is presented in Chapter 8.

Public Transport

The Pegasus Mākete is located within a 5 minute walk of public transport on Pegasus Boulevard with the following services:

- Route 95 travels from Pegasus to the city every 30 minutes during the morning peak hours (about 6.30-8am), every hour thereafter and back from the city every hour (about 7.30-8.30pm).
- Route 97 travels between Rangiora and Pegasus with services every hour between 8am and 6pm.

Walking and Cycling

The Pegasus Mākete road network is expected to be designed to ensure that pedestrians/ cyclists can conveniently walk/ cycle between it and nearby residential areas via the existing road network/ shared paths that run along Pegasus Boulevard. However, it's worth noting that pedestrian accessibility could be significantly improved for existing and future users through the provision of a formal pedestrian/ cycle crossing across Main North Road to improve connectivity between Ravenswood and Pegasus.

The provision of cycle parking and end-of-trip facilities will encourage customers and employees to cycle especially those who live within 2-5km radius from the Resort. The existing shared paths on Pegasus Boulevard and Bob Robertson Drive will link users to the wider walking/cycle network.

At resource consent stage, internal roads and car parking at the Pegasus Resort will be designed in line with Crime Prevention Through Environmental Design (CPTED) principles. All customer cycle parking spaces will be provided along the main façade of buildings to provide passive surveillance of bicycles. The car park and areas with pedestrian movement will be lit to an appropriate level and could be monitored to further improve safety.

7. Travel Characteristics and Trip Generation

7.1 Trip Generation

The effects of Pegasus Mākete on the surrounding road network has been assessed. Pegasus Mākete is located in an area where continuous development in Pegasus and Ravenswood residential subdivisions are occurring. In addition, a plan change application to rezone residential land to a golf and spa resort is also in consultation. An assessment of trip generation has been completed and consists of the following existing and future trip generators:

1. Existing and future baseline.
2. Pegasus Resort (Resort Plan change).
3. Pegasus Mākete.

This assessment informs the Pegasus Mākete access intersection types and assesses the impact of the development on the operation of the State Highway 1/ Pegasus Boulevard intersection.

Existing baseline

Traffic surveys at SH1/ Pegasus Boulevard intersection were conducted on 07 April 2022 and 11 April 2022 to establish the baseline conditions including frontage traffic flow volumes required to test the access locations and forms on Main North Road and Pegasus Boulevard.

The turning movements for the Thursday peak hour (16:30-17:30) and Sunday peak hour (13:00-14:00) are shown in Figure 7-1.

Figure 7-1 Existing Turning Movements Weekday (left) Sunday (right)

Based on the above turning volumes, the two-way traffic flow along the frontage roads of Pegasus Mākete has been calculated as shown in Table 7-1.

Table 7-1 Frontage Road Peak Hour Flows

Frontage Road	Weekday Peak Hour		Weekend Peak Hour	
	Eastbound/ Southbound	Westbound/ Northbound	Eastbound/ Southbound	Westbound/ Northbound
Pegasus Boulevard	496	297	367	351
Main North Road (MNR)	498	675	628	606

The above traffic volumes include the current levels of activity that are accessed from the roundabout.

- A 65-75% developed Pegasus residential sub-division
- A 40%-45% developed Ravenswood residential sub-division
- New World supermarket, BP fuel station and McDonalds fast food restaurant part of the Ravenswood commercial subdivision.

Full development of Pegasus and Ravenswood subdivisions are expected to add a significant amount of traffic to the SH1/ Pegasus Boulevard roundabout, which is likely to be a catalyst to the introduction of the Woodend Bypass. The bypass is expected to alter the immediate road network significantly with the roundabout possibly being replaced by an interchange. Considering the unknown future environment, this assessment will not assess a fully developed Ravenswood and Pegasus subdivision scenario which is also like to take some years to materialise noting Pegasus has been developing for over 15-20 years already and is still not complete. It is recommended that Waka Kotahi is consulted on this matter to better understand the future plans for the corridor prior to detail assessment at resource consent stage.

The Waka Kotahi designation for the upgrade is shown below.

Figure 7-2 Waka Kotahi Designation for the Woodend Bypass

Future baseline

To be consistent with the Pegasus Resort assessment, 2029 has been chosen as the future base year. All turning movements that are not turning in or out of Pegasus Boulevard have been increased by 2% per annum to account for background traffic growth.

Pegasus Golf and Spa Resort

The trip generation for the proposed resort development has been sourced from the Abley Integrated Transport Assessment (ITA) issued on 19 December 2019. The trip generation is summarised in Appendix A. In summary, a total of 656 trips are anticipated in the weekday peak hour and a total of 737 trips are anticipated in the weekend peak hour.

Pegasus Mākete

The trip generation of the Pegasus Mākete development is summarised in Table 7-2. Trip rates for each proposed land use was sourced from three commonly used trip rate sources:

- NZ Transport Agency Research Report 453 Trips and parking related land use.
- NZ TRICS/ TDB trips database.
- RTA NSW Guide to Traffic Generating Developments

Where an appropriate trip rate was unavailable a first principles approach has been used to estimate the trip generation of that activity. Land use areas and associated trip rates for the weekday peak hour and Sunday peak hour are summarised in Table 7-3. Except for the restaurant land use, the same trip rate has been used for both weekday and Sunday assessments as it is assumed that the activity peak hour trip generation is applicable to both days. In other words, Thursday around 5pm will be as busy as

Sunday 1pm. In the PM network peak, for the restaurant activity the trip rate has been halved as only 50% occupancy is expected (too early for dinner).

It is also assumed that 30% of trips will be internal/ linked trips to the Mākete and/ or Pegasus Resort (walking/ biking trips) developments.

Table 7-2 Trip Generation

Component	Floor Area	Activity class	Trip rate (per 100sqm)	Trips	Discount	Weekday PM Peak	Sunday 2pm
Market Building	740	Small Shopping centre	18.9	140	30%	98	98
Wine Centre	230	Bars and taverns	15.6	36	30%	25	25
Food & Beverage	230	Restaurant	18	41	60%	17	17
Micro Brewery	230	Bars and taverns	15.6	36	30%	25	25
Future Expansion x 2	460	Restaurant	18	83	30% (internal) and 50% (too early for dinner)	17*	58
Village buildings x 6	480	First principles - 120 Max occupancy	3/ car at 80% occupancy	32	30%	22	22
Landmark	20	Nil				0	0
Pavilion	90	Nil				0	0
Residential	27 units	Outer Suburban Dwelling	0.9 per unit	24		24	24
Total						**228**	**269**

7.2 Pegasus Mākete Trip Composition

Trips associated with activity similar to the Pegasus Mākete normally consists of three types of trips. New, diverted and pass-by trips. Considering the location of the Mākete, the following assumptions are made in regards to the proportion of each trip type.

New trips – 65% of the trips will be new trips where visitors will make a new trip from home or other origin to visit the Mākete. This is conservatively high and reflects the situation where two thirds of visitors are making an exclusive trip to this location including tourists and residents from Christchurch and the wider residential catchment.

Diverted trips – 5% of traffic currently turning left from Main North Road to Bob Robertson Drive will turn right at the roundabout to visit the Mākete instead.

Pass-by trips – 30% of the trip generation is estimated to be pass-by trips due to the location and the activity on offer at the Mākete.

- 10% of trips currently turning right from the south at the roundabout to head towards Pegasus will visit the Mākete on the way home.

- 10% of traffic travelling south on Main North Road will enter and exit the Mākete using Access 1 or 2. No changes to the roundabout turning movements.
- 10% of northbound traffic on Main North Road will turn right in at Access 2, turn right out of Pegasus Drive upon exit and turn right again at the roundabout to head back north.

7.3 Pegasus Mākete Trip Distribution

The results of the traffic count surveys undertaken at the SH1/ Pegasus Blvd./ Bob Robertson Drive roundabout showed a significantly higher number of vehicles turning to and from Bob Robertson Drive from all approaches when compared with the surveys undertaken in 2020 (conducted to inform the Abley Transport Assessment for the proposed Pegasus resort development).

The trend was more prominent during the weekday peak hour than during the weekend. This is likely due to impact of locals changing their supermarket choice and travelling to the New Word supermarket accessed via Bob Robertson Drive rather than travelling further afield. In terms of turning movements at the roundabout, this means a higher number of overall trips through the roundabout, for example a previous right turn from the southern approach into Pegasus Town, now corresponds to two turns at the roundabout. Firstly, a left turn from the southern approach to visit New World followed by a through movement from the western approach to continue on to Pegasus. On this basis, the trip distribution used for SIDRA modelling has conservatively assumed that 20% of all residential (that is residential trips of the Pegasus Mākete as well as the Pegasus township) inbound trips during the weekday peak hour and 10% during the weekend divert to the supermarket.

The Pegasus Mākete is mainly targeting tourist traffic or day trippers from Christchurch/ Rangiora to showcase the regions hospitality offerings. Therefore, majority of traffic is anticipated to be from the State Highway, mainly Christchurch. The Pegasus Mākete new trips were assigned to each access as shown in Table 7-3. For the weekday peak hour, it is assumed that 80% of traffic will arrive and 20% depart, with a 50%/50% split in the weekend peak hour.

It is also assumed that 75% of new trips arriving from the north will continue to travel south after visiting the Mākete. Similarly, 10% of new trips arriving from the south will travel north upon exit.

Trips associated with the Pegasus Resort has been distributed as per the previous assessment included in Appendix A, in summary 23% of the trips will be towards/ from Pegasus Town whereas 77% will be via SH1/ Pegasus Boulevard Roundabout. This varies from the Mākete distribution because most of the golf related traffic is local to Pegasus Town.

Table 7-3 New Trips Distribution

		Going to				
		North	East	South	West	
Coming From	North	6%		19%		25%
	East		5%			5%
	South	14%		41%		55%
	West				15%	15%
		20%	5%	60%	15%	100%

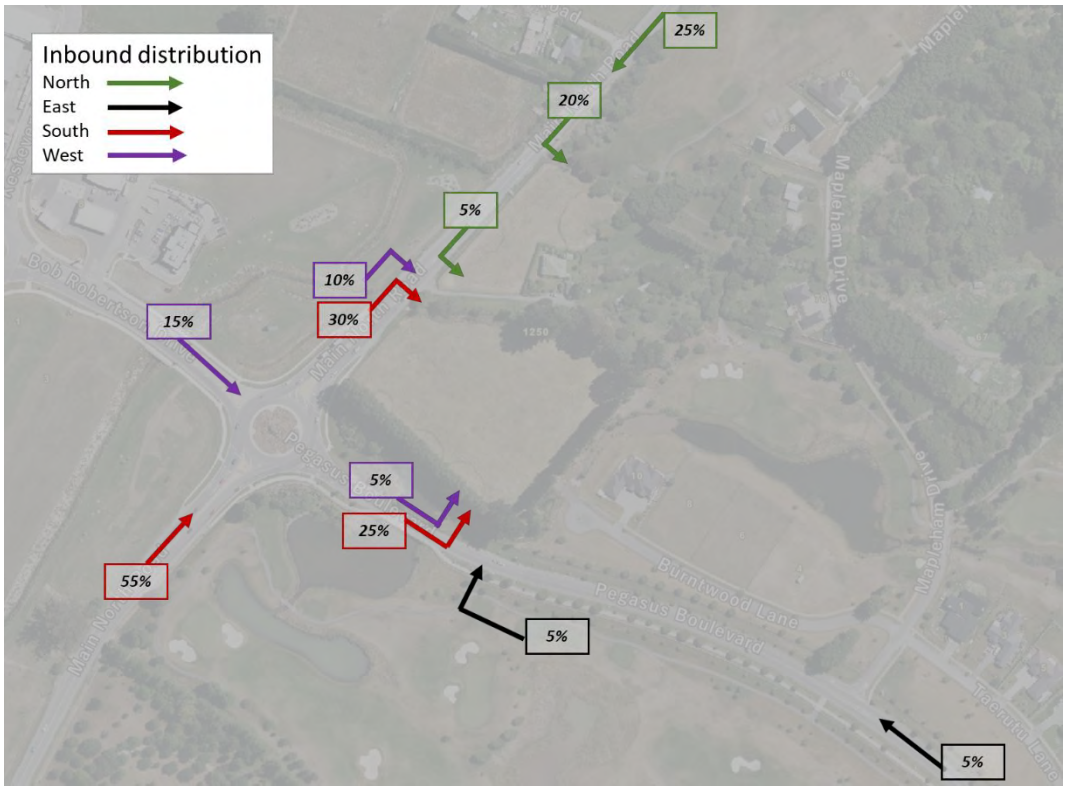


Figure 7-3 Inbound Trips Distribution (New trips only)

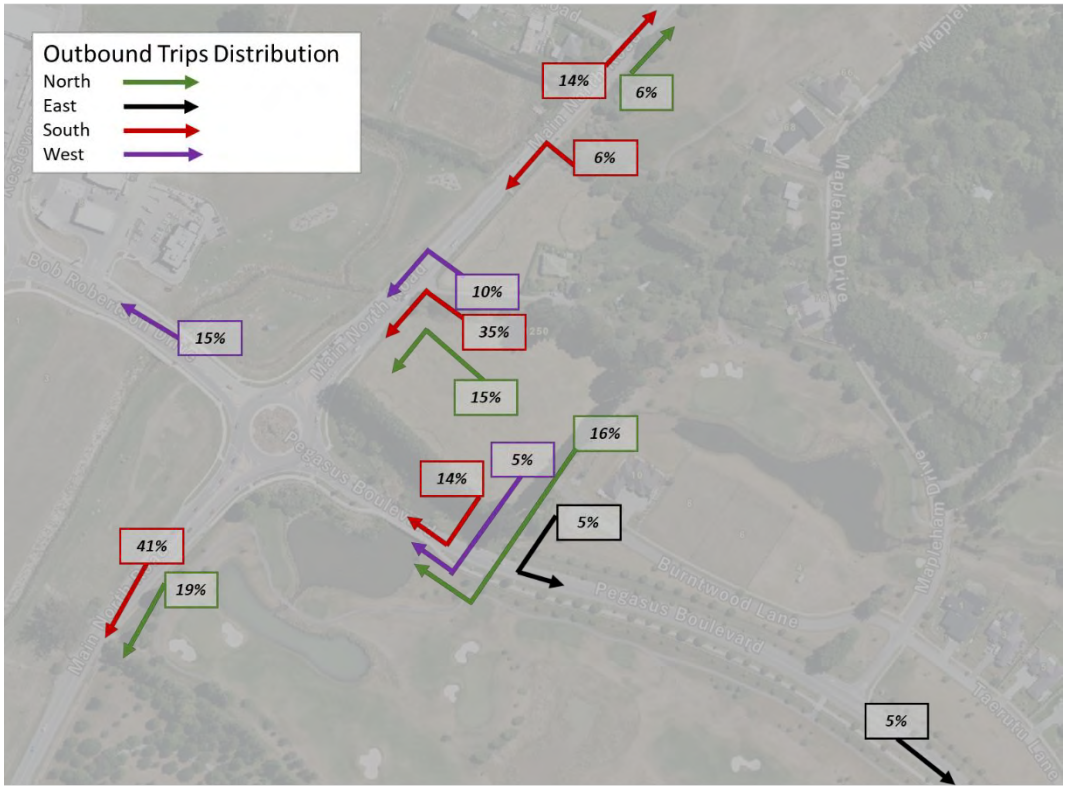


Figure 7-4 Outbound Trips Distribution (New Trips only)

7.4 Trip Assessment

The estimated turning movements at the proposed access intersections are shown in the following figures.

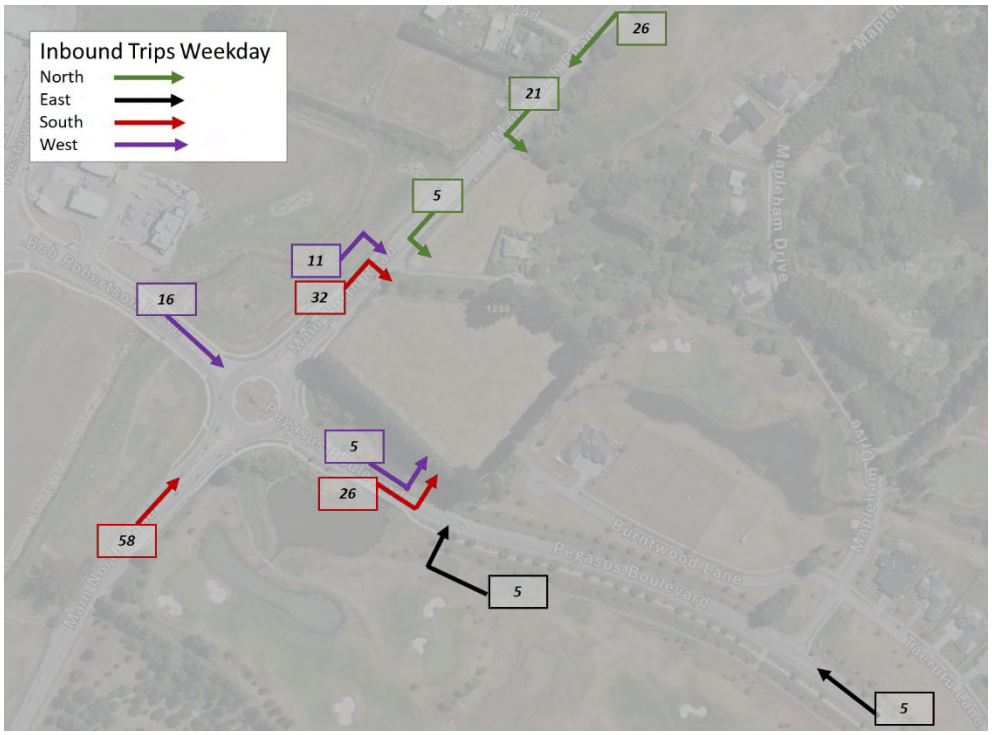


Figure 7-5 Inbound Trips Weekday

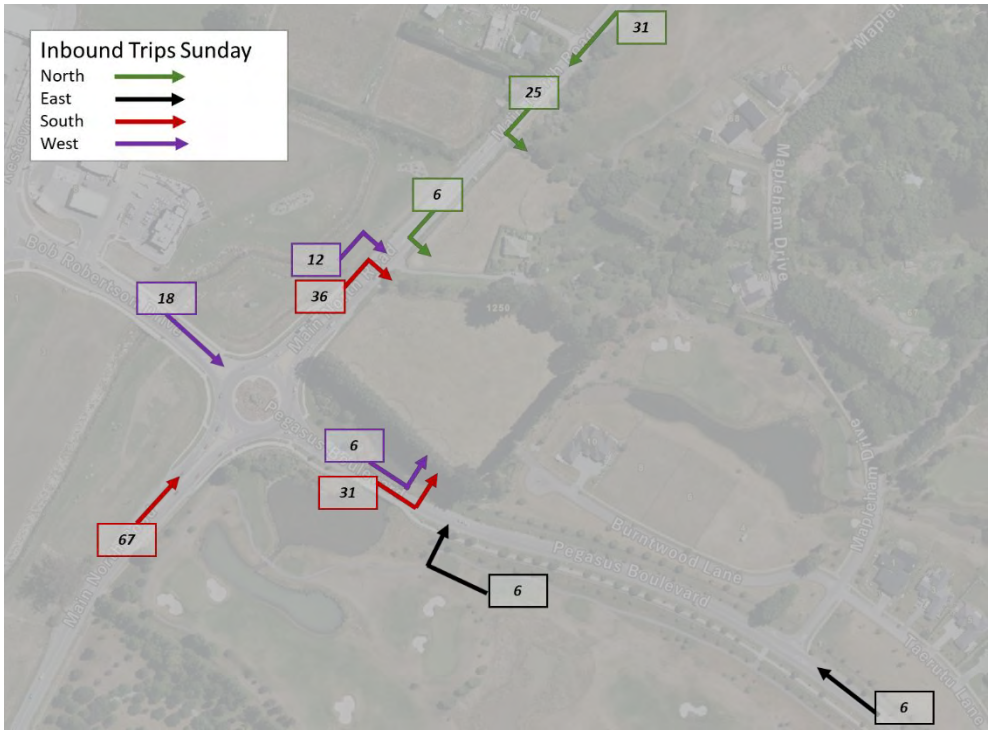


Figure 7-6 Inbound Trips Sunday

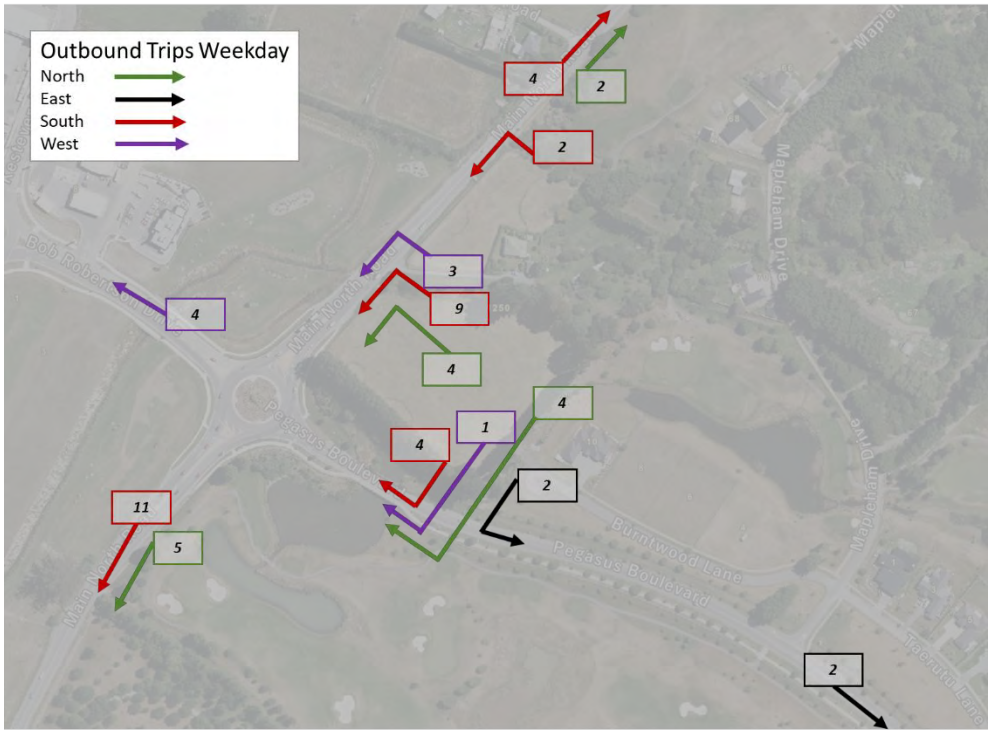


Figure 7-7 Outbound Trips Weekday

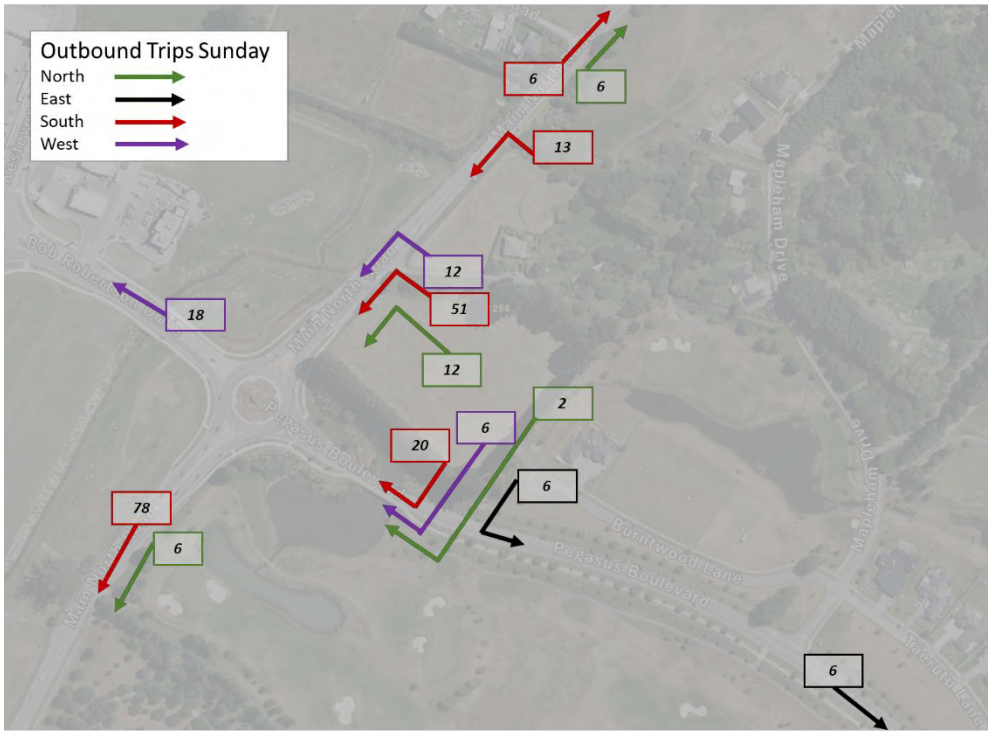


Figure 7-8 Outbound Trips Sunday

8. Effects on Transport Network

8.1 Modelling Approach

The future year was chosen as 2029 (consistent with Pegasus Resort ITA). It is also assumed that the Pegasus Resort will be part of the future baseline. The following scenarios were modelled.

Weekday Peak Hour

- 2022 existing base
- 2029 future base with Pegasus Resort
- 2029 future base with Pegasus Resort and Pegasus Mākete

Sunday Peak Hour

- 2022 existing base
- 2029 future base with Pegasus Resort
- 2029 future base with Pegasus Resort and Pegasus Mākete

8.2 Understanding Model Results

The performance of the subject roundabouts for the above scenarios was tested using SIDRA Intersection 9 Software. SIDRA Intersection offers a range of outputs for any given model. The outputs selected for this analysis are:

- Degree of Saturation (DOS)
- Average delay (seconds);
- Level of Service (LOS); and
- 95th percentile back of queue and queue distance (metres).

The DOS is a ratio of the demand placed on the intersection against the capacity of the intersection. A DOS equal to 1.0 indicates that the intersection is operating at its maximum theoretical capacity.

Average delay is the average delay experienced by vehicles travelling through an intersection and includes deceleration, queuing, stopping and acceleration.

The LOS generally describes the traffic conditions in terms of travel time, volume, capacity, freedom to manoeuvre and convenience. The LOS ranges from A to F where A represents the least impediment to vehicle movement and F represents heavy congested conditions.

The 95th percentile back of queue and queue distance is the value below which 95% of all observed queue lengths fall (i.e. 5% of all observed queue lengths exceed this value).

One of the key metrics reported is the Level of Service (LOS) at an approach level and overall at each intersection. Typically, in assessments of intersections in peak demand periods the industry best practice is to keep the operation of an intersection at or below LOS E although LOS F can be tolerated in busy urban environments at peak hour. A general description of level of service is shown in Table 8-1.

Table 8-1 Level of Service (LOS) general descriptions

Level of Service Band	General Traffic Flow Description
LOS A	Primarily free-flow operation
LOS B	Reasonably unimpeded operation
LOS C	Stable operation
LOS D	A less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed
LOS E	Characterised by unstable operation and significant delay
LOS F	Characterised by flow at extremely low speed. Congestion is likely occurring at the boundary intersections, as indicated by high delay

Performance of the road network for each of the scenarios is described below with a summary at the end of the section. Detailed outputs are included in Appendix B.

8.3 Access Intersection performance

2029 future base with Pegasus Resort and Pegasus Mākete

Access 1 has not been modelled given it's a left in left only access intersection. The intersection layout for Access 2 and 3 is shown in Figure 8-1.

For Access 2, the results show that it will operate with minimal queues and delays with the right turn in (worst movement) operating at LOS B (average delay of 11 secs and 95% back of queue <1 vehicle) in the weekday peak hour. All other movements will be operating at LOS A.

For the Sunday peak hour, the results show both the right turn in and left turn in operating with LOS C whilst experiencing minor delay (16 seconds and 22 seconds respectively). However, the 95% back of queue for both movements will be less than two vehicles.

The all-movement Access intersection 3 on Pegasus Boulevard will operate with modest delays and queues. The right turn out of the Pegasus Mākete will experience delays of 34 seconds and operate at LOS D. However, the degree of saturation for this movement is 0.232 v/c, which suggest there are no capacity issues.

For the Sunday peak hour, the right turn out will experience a 29 second delay with a 95% back of queue of one vehicle (LOS D) and the degree of saturation for this movement is 0.210 v/c.

The above results conclude that the proposed access intersections will function well in the future scenario with no significant congestion, vehicle delays or queuing modelled.

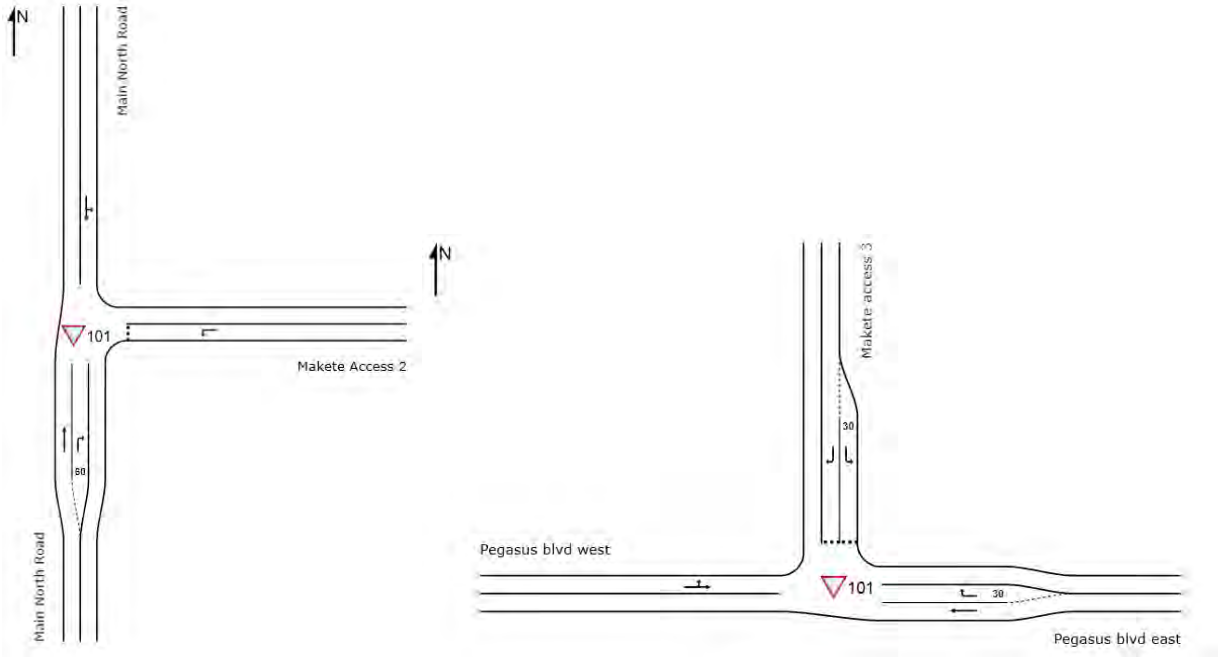


Figure 8-1 Access Intersection 2 (left) and 3 (right)

8.4 State Highway 1/ Pegasus Boulevard roundabout performance

2022 existing base

The performance of the existing roundabout has been modelled with observed turning movement data. The modelled queues were calibrated using observed queues to ensure the model replicated current observed traffic behaviour and intersection performance. The layout is shown in Figure 8-2.

The modelling results are shown in Appendix B.

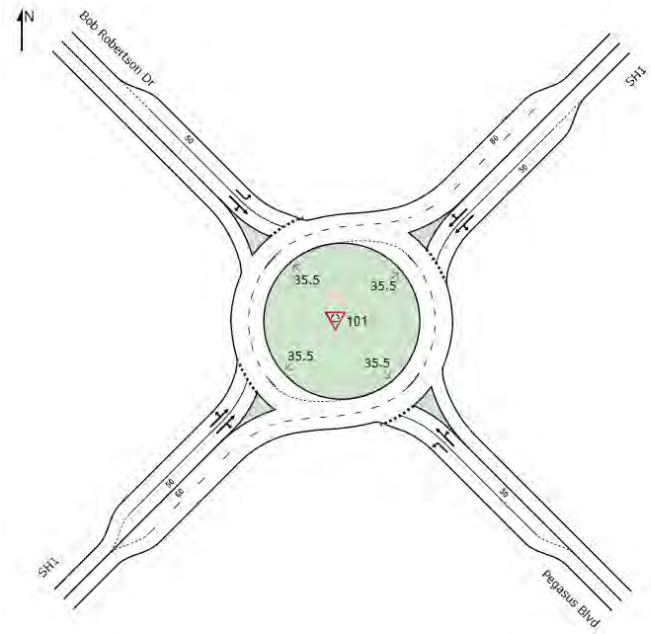


Figure 8-2 SH1/ Pegasus Boulevard roundabout layout

The weekday results show that the roundabout operates with minimal queues and delays with an overall LOS A in the weekday peak hour. The worst approach, which is SH1 South has a degree of saturation of 0.559 v/c with 7.6 seconds average delay. This is consistent with observations made on site.

The Sunday results were similar with minimal delays and queuing with an overall LOS A.

2029 future base with Pegasus Resort

For this scenario, the existing traffic volumes were increased to account for background growth and the Pegasus Resort.

The results show that the intersection operate with minimal queues and delays at LOS B in the weekday peak hour. The worst approach, Bob Robertson Drive has a degree of saturation of 0.875 v/c. with 29 seconds average delay and 92m queues.

The Sunday results are slightly worse than the weekday results. The overall Level of service is LOS B however the north approach experiences 120m queues with 24 second delay. The level of service for this approach is LOS C and the degree of saturation is 0.853 v/c.

The above intersection level of service is considered acceptable considering the function of the corridor.

2029 base with Pegasus Resort and Pegasus Mākete

In the post Pegasus Mākete scenario, the intersection performance demonstrates that there will be increased delays and queuing on some approaches. Whilst the overall level of service is LOS C, movements on the north and west approaches experience LOS E and LOS F. The degree of saturation for the worst approach (Bob Robertson Drive) is 0.986 v/c which means the intersection is operating at capacity.

The Sunday results are slightly better than the weekday results. The overall Level of service is LOS C however the north approach experiences 240m queues with 48 second delay. The level of service for this approach is LOS D and the degree of saturation is 0.975 v/c. Queuing on the north approach is likely to interfere with turning movements at Access 2.

The post development results indicate that the roundabout is approaching capacity as the v/c ratio is nearly one. As mentioned before, the roundabout is likely to be upgraded to an interchange in line with the Woodend bypass project although the timing of this upgrade is unsure. If the Pegasus Mākete were to be fully developed prior to the construction of the bypass vehicles delays the intersection is anticipated to be operating near or at capacity.

It is therefore recommended that further traffic modelling is conducted at resource consent application stage of the Pegasus Resort as well as the Pegasus Mākete to better understand the roundabout performance under the post development scenario when the development land use composition is better known or fixed. At resource consent stage there may be more certainty around the timing of the delivery of the bypass project. It may also be that the Pegasus Mākete could be delivered in stages to ensure the receiving transport network can safely and efficiently accommodate the Pegasus Mākete traffic, and interim upgrades are also a plausible response in terms of signalised control of some approaches at peak times to manage queuing or the installation of exclusive left lanes on key approaches.

9. Strategic Planning Framework

There are a number of key strategic planning documents with which any land rezoning is expected to conform. An assessment of the proposed Pegasus Mākete development against these documents is summarised below. Note that this assessment is comparable to the Pegasus Resort assessment given the proposal is an extension to the resort.

9.1 Regional Policy Environment

Canterbury Regional Policy Statement

The Canterbury Regional Policy Statement 2013 sets out significant resource management issues in the region and details ways to resolve those issues and achieve the integrated management of the natural and physical resources. Chapter 5 ('Land Use and Infrastructure') highlights a number of polices relating to the transportation networks:

Policy 5.3.7 - Strategic land transport network and arterial roads (Entire Region)

In relation to strategic land transport network and arterial roads, the avoidance of development which:

> *(1) adversely affects the safe efficient and effective functioning of this network and these roads, including the ability of this infrastructure to support freight and passenger transport services; and*
>
> *(2) in relation to the strategic land transport network and arterial roads, to avoid development which forecloses the opportunity for the development of this network and these roads to meet future strategic transport requirements.*

Policy 5.3.8 - Land use and transport integration (Wider Region)

Integrate land use and transport planning in a way:

(1) that promotes:

> *(a) the use of transport modes which have low adverse effects;*
>
> *(b) the safe, efficient and effective use of transport infrastructure, and reduces where appropriate the demand for transport;*

(2) that avoids or mitigates conflicts with incompatible activities; and

(3) where the adverse effects from the development, operation and expansion of the transport system:

> *(a) on significant natural and physical resources and cultural values are avoided, or where this is not practicable, remedied or mitigated; and*
>
> *(b) are otherwise appropriately controlled.*

Policy 5.3.9 - Regionally significant infrastructure (Wider Region)

In relation to regionally significant infrastructure (including transport hubs):

> *(1) avoid development which constrains the ability of this infrastructure to be developed and used without time or other operational constraints that may arise from adverse effects relating to reverse sensitivity or safety;*

Policy 6.3.2 Development form and urban design

Business development, residential development (including rural residential development) and the establishment of public space is to give effect to the principles of good urban design below, and those of the NZ Urban Design Protocol 2005, to the extent appropriate to the context:

> *(2) Integration – recognition of the need for well-integrated places, infrastructure, movement routes and networks, spaces, land uses and the natural and built environment. These elements should be overlaid to provide an appropriate form and pattern of use and development.*
>
> *(3) Connectivity – the provision of efficient and safe high quality, barrier free, multimodal connections within a development, to surrounding areas, and to local facilities and services, with emphasis at a local level placed on walking, cycling and public transport as more sustainable forms of transport*

Policy 6.3.4 Transport effectiveness–

Ensure that an efficient and effective transport network that supports business and residential recovery is restored, protected and enhanced so that it maintains and improves movement of people and goods around Greater Christchurch by:

> *(1) avoiding development that will overload strategic freight routes;*
>
> *(2) providing patterns of development that optimise use of existing network capacity and ensuring that, where possible, new building projects support increased uptake of active and public transport, and provide opportunities for modal choice;*
>
> *(3) providing opportunities for travel demand management;*
>
> *(4) requiring integrated transport assessment for substantial developments; and*
>
> *(5) improving road user safety.*

Pegasus Mākete will prefer direct access to/from the strategic road network, and the modelling exercise demonstrates that the roundabout will be operating at or near capacity if the site is fully developed prior to the delivery of the Woodend bypass. Therefore, it is recommended that further modelling assessment is conducted at resource consent stage when there is more clarity around the development land use composition and further details as to the timing of the Woodend bypass is known.

Pegasus Boulevard is currently classified as a Local Road and Pegasus Mākete would not prevent it from being upgraded to a higher hierarchy in the future because access to all activity is concentrated to defined access intersections and not directly from Pegasus Boulevard.

The provision of residential development within Pegasus Mākete will ensure some recreational and hospitality trips are captured within the development reducing the demand on the external road network. The development is located within 2km of more than 3300 residential dwellings which is considered an acceptable cycling distance for many people. The existing shared paths with underpasses provides safe crossing opportunities on Pegasus Boulevard and will encourage more walking and cycling as the population grows.

The recently completed Christchurch Northern Motorway and the Woodend Bypass (proposed) are two significant infrastructure projects for the region. Neither of these projects will be adversely affected by the proposed resort development. The Bypass is expected to modify the SH1/ Pegasus Roundabout therefore improving connectivity to the Pegasus Mākete as well as relieve the pressure on the roundabout.

The site accommodates non-car modes of travel and the provision made for walking and cycling journeys is considered appropriate for the nature of the proposed zoning. Walking and cycling links will be provided to connect Project Mākete to the adjacent Pegasus Resort and to residential development to the east and west, and the likely number of walking and cycling trips is not expected to result in the need for additional infrastructure on the frontage road (Pegasus Boulevard).

The safety records in the area do not indicate that the plan change request would result in any adverse effects arising on the adjacent network, and the infrastructure within the site will be designed to meet current WDC and NZ standards.

Canterbury Regional Land Transport Plan 2015 – 2025

The Canterbury Regional Land Transport Plan 2015 – 2025 describes a list of primary objectives to achieve the vision of "Canterbury has an accessible, affordable, integrated, safe, resilient and sustainable transport system".

These primary objectives are;

- Progressively reduce transport-related fatalities and serious injuries
- Increase the attractiveness of public transport, walking and cycling, so there is greater use of these modes:
  - For public transport the focus is on timeliness, convenience, affordability, efficiency, connectedness, and sustainability
  - For walking and cycling the focus is on safety, amenity, convenience, connectivity and being able to take a direct route
- Improve connections between different transport modes
- Increased capability for appropriate roads and bridges to carry heavy vehicles
- All roads comply with One Network Road Classification performance measures
- Improve journey time reliability on key corridors, with a focus on freight, public transport and tourism
- Improve access to freight hubs
- Resilience routes are in place for strategic routes that are most at risk of disruption
- Reduce the number and duration of road closures
- Increased uptake of energy efficient and environmentally sustainable vehicles
- Increased transport and land use integration
- Reduced air and water pollution

The extension of the Pegasus Resort will be a development that may require upgrades to the adjacent roundabout subject to the staging and timing of the development and the proposed Woodend bypass, however there are feasible upgrades that could be considered and assessed at resource consent stage if required. The plan change area is located on a key movement corridor therefore provides opportunity for better public transport services and will therefore provide for a choice of travel modes.

The proposal does not deviate from the ONRC classification or performance measures. The discussion on previous pages relating to the CRPS further demonstrate that the development meets the objectives of the CRLTP.

Canterbury Regional Public Transport Plan 2018 – 2028

The Canterbury Regional Public Transport Plan 2018-2028 sets out Environment Canterbury's objectives and policies for delivering public transport in Canterbury. One of the key objectives of the

plan is to grow and expand the Christchurch Public Transport network whilst growing patronage and providing a quality customer experience.

The recent changes to the Waimakariri services has improved public transport accessibility between local suburbs and the Resort. Regular bus services are located within a five minute walk of the proposed development and provide connectivity to Christchurch and Pegasus Town.

9.2 Local Policy Environment

Waimakariri District Plan

Objectives and policies

There are three policies within the District Plan which are particularly relevant to consideration of a plan change request:

Policy 11.1.1.5 –

New developments and activities in relation to their traffic generation characteristics should:

> *A) Locate on or establish primary access to an appropriate level of road within the road hierarchy*
>
> *B) Not have vehicular access to an inappropriate level of road within the hierarchy*
>
> *C) Provide cycleways along arterial, strategic and collector roads*

Policy 11.1.1.6 –

Every site should have access that provides safe entry and exit for vehicles to and from the site to a road without compromising the safety or efficiency of the road or road network. Where a site has two or more road frontages access should be from the lowest road classification within the road hierarchy.

Policy 11.1.1.7 –

Vehicle parking, loading and manoeuvring provided on-site, or within shared parking facilities, shall ensure that:

> *a) safe and efficient access is provided;*
>
> *b) use of off-site parking facilities will not adversely affect pedestrian, cycle or public transportation, public safety, and the safe, efficient operation of the road network; and*
>
> *c) for shared parking, a legally binding arrangement is established that protects ongoing access and use.*

The proposal aims to provide a development that encourages recreation and tourism which is much desired in the Waimakariri District. The Resort expansion proposal is in line with the above Polices by providing access from the existing road network using a typical road hierarchy where primary access is provided by the lowest classification acknowledging that turn restricted accesses are provided on State Highway 1. Vehicle access to the Pegasus Mākete will be via well designed priority-controlled intersections. No new vehicle crossings that would compromise the functioning of Pegasus Boulevard are proposed.

All onsite parking, loading and turning for vehicles will be accommodated internally with appropriate pedestrian and cycle connections throughout the Pegasus Mākete.

District Plan Rules

No departures from the operative traffic and transportation rules within the District Plan and no new transportation-related Objectives, Policies or Rules are proposed. However, it is also envisaged that there may be occasional departures from these to achieve the optimum urban design outcome. If there are any deviations from this, these will be identified when land use and/or subdivision consents are sought, and the acceptability of these non-compliances determined at that time.

It is anticipated that at resource consent stage of any development, the transport related District Plan Rules set out in Chapter 30 Utilities and Traffic Management and the Waimakariri District Council Engineering Code of Practice Part 8 Roading will form an appropriate basis for the design and layout of the internal site.

10. Conclusion

This report identifies, evaluates and assesses the various transport and access elements of a plan change request for land located at 1250 Main North Road to provide a Pegasus Mākete with residential, hospitality and recreational activity. Overall, the development that facilitated by the plan change will result in an increased level of activity compared to the current zoning.

The current level of service of the surrounding roading network has been assessed, accounting for traffic growth expected at the Pegasus Resort and Mākete. Intersection traffic modelling has been undertaken to assess the operation of nearby intersections for the evening peak hour and Sunday afternoon peak hour under a future development scenario. The results of the analysis demonstrate that the receiving transport network has limited capacity to accommodate traffic generated from the Pegasus Mākete and the Pegasus Resort in addition to anticipated future background growth.

The traffic modelling indicates that the adjacent State Highway roundabout will be operating at or near capacity in 2029 with the full development of the site. Several recommendations are put forward to address this as follows:

- Currently there are several conservative assumptions have been made in regard to the trip generation of the Pegasus Mākete. Therefore, it is recommended that further traffic assessment including traffic modelling be undertaken at resource consent stage of the Pegasus Resort/ Mākete when there is more certainty with respect to the development land use composition and associated likely traffic generation and distribution.
- Given the uncertainty regarding the layout and timing of the delivery of the proposed Woodend Bypass project, discussions should be held with the Waka Kotahi NZ Transport Agency to know more details of the timing of the project and this can feed into the subsequent assessment at resource consent stage.
- Based on the above information, there are opportunities to either stage the development in line with the delivery of the Woodend bypass project if necessary (for example it may be that 50-80% of the development can be established prior to the bypass being operational). Alternately there are feasible interim roundabout upgrades such as signalising key approaches to manage queuing or providing exclusive left turn approach on key approaches, that could be considered if required. It would be appropriate to assess this at resource consent stage and engage with Waka Kotahi in that regard.

The current crash history along State Highway 1/ Pegasus Boulevard does not highlight any underlying safety issues. Accordingly, it is considered unlikely that the proposed development related traffic will compromise road safety within the vicinity as long as the roundabout performance is adequately assessed at resource consent stage. Further assessment is required if the receiving transport environment changes. With the growth projected for nearby subdivisions an appropriate pedestrian/ cycle crossing facility may be required to ensure users can cross the State Highway safely.

The proposed rezoning has been assessed against the relevant transport planning framework contained in regional and local strategies and policies, and overall, it is considered that the proposal is consistent with the transport-related objectives and policies of those documents.

Appendix A.
Pegasus Resort ITA

Pegasus Golf Resort Rezoning

Integrated Transportation Assessment

Sports and Education Limited

Insightful solutions. Empowering advice.

Pegasus Golf Resort Rezoning

Integrated Transportation Assessment

Sports and Education Limited

Quality Assurance Information

Prepared for:	Sports and Education Limited
Job Number:	SAECL-J001
Prepared by:	Jay Baththana, Senior Transportation Engineer
	Shonel Sonakjee, Transportation Engineer
Reviewed by:	Dave Smith, Technical Director

Date issued	Status	Approved by
		Name
18 December 2019	FINAL	Dave Smith

This document has been produced for the sole use of our client. Any use of this document by a third party is without liability and you should seek independent advice. © Ableys Limited 2019. No part of this document may be copied without the written consent of either our client or Abley Limited. Refer to http://www.abley.com/output-terms-and-conditions-1-0/ for output terms and conditions.

T +64 9 486 0898 (Akld)
T +64 3 377 4703 (Chch)
E admin@abley.com

Auckland
Level 1, 70 Shortland Street
PO Box 911336
Auckland 1142
New Zealand

Christchurch
Level 1, 137 Victoria Street
PO Box 25350
Christchurch 8144
New Zealand

www.abley.com

Contents

1.	**Introduction**	**1**
2.	**Background**	**2**
3.	**Existing Land Use and Transport Environment**	**3**
3.1	Locality	3
3.2	Zoning	3
3.3	Existing Land Use	4
3.4	Surrounding Roads	4
3.5	Existing Traffic Volumes	5
3.6	Safety	9
3.7	Walking Facilities	11
3.8	Cycling Facilities	12
3.9	Crossing the State Highway	13
3.10	Public Transport	14
4.	**Future Receiving Environment**	**15**
4.1	Pegasus Town	15
4.2	Ravenswood Village	15
4.4	Woodend Short Eastern Alignment	16
5.	**Rezoning Proposal**	**17**
6.	**Accessibility**	**18**
7.	**Travel Characteristics and Trip Generation**	**20**
7.1	Trip Generation	20
7.2	Trip Distribution	22
9.	**Strategic Planning Framework**	**28**
9.1	Regional Policy Environment	28
9.2	Local Policy Environment	30
10.	**Conclusion**	**32**

Tables

Table 3.1 Traffic counts - Main North Road and Pegasus Boulevard intersection (Thursday) 6
Table 3.2 Traffic counts - Main North Road and Pegasus Boulevard intersection (Sunday) 7
Table 3.3 Traffic counts - Pegasus Boulevard and Mapleham Drive intersection (Thursday) 7
Table 3.4 Traffic counts - Pegasus Boulevard and Mapleham Drive intersection (Sunday) 8
Table 3.5 Crash data (2015-2019) 9
Table 7.1 Land use and trip rates 20
Table 7.2 Anticipated Trip Distribution 22
Table 7.3 Level of Service (LOS) general descriptions 24
Table 7.4 SH1/ Pegasus Boulevard weekday peak hour comparison 26
Table 7.5 SH1/ Pegasus Boulevard Sunday Peak Hour Comparison 26

Figures

Figure 3.2 WDP Zoning Map 4
Figure 3.3 Daily Traffic Flow – Pegasus Boulevard 6
Figure 3.4 Collective Risk Map 11
Figure 3.5 Personal Risk Map 11
Figure 3.6 Footpaths along Pegasus Boulevard 12
Figure 3.7 Cycle facilities in the area (sourced: Urban Cycleways Programme) 13
Figure 3.8 Public transport options (sourced: Metro Bus Service) 14
Figure 4.1 Ravenswood Masterplan 15
Figure 4.2 Woodend Corridor Bypass 16
Figure 5.3 Pegasus Resort ODP 17

Appendices

Appendix A Crash History

Appendix B Bus Routes

Appendix C

SIDRA Output

Appendix D Volume Plots

1. Introduction

Sports & Education Corporation Limited (SAECL) wishes to rezone the existing Pegasus Golf and Sports Club as a Resort zone within the Waimakariri District Plan (WDP) to include hotel/ apartments visitor accommodation, hot pools/spa tourism, conference and event centre, residential apartments, commercial units and other ancillary uses. The plan change area is approximately 14ha within land mainly occupied by the golf course and club house.

SAECL commissioned Abley Limited (Abley) to prepare an Integrated Transport Assessment (ITA) to accompany the plan change application. The proposed plan change will be referred to as the Pegasus Resort in this document.

The purpose of this ITA is to evaluate the potential transportation related effects of the rezoning on the future transport network. The ITA has been prepared using the guidance specified in the 'Integrated Transport Assessment Guidelines' published by the New Zealand Transport Agency[1].

[1] https://www.nzta.govt.nz/assets/resources/research/reports/422/docs/422.pdf

2. Background

A consent was granted in 2005 to development a community containing an 18-hole golf course, main and arterial access roads, a village green including clubhouse, gym, restaurant, café and service buildings and 98 residential lots on the Mapleham block and the Special Purpose Area adjacent to Pegasus Town. These resource consents (RC055641 and RC055642) were issued, with a further consent for the Mapleham subdivision (RC075633). There have been a number of variations following the granting of these consents. The Mapleham residential lots and the golf course covers the area on both the north and south sides of Pegasus Boulevard, the main access road to Pegasus Town.

The Pegasus Resort site currently falls within both the Pegasus Outline Development Plan (Map 142 of the WDP) and the Mapleham Outline Development Plan (Map 147 of the WDP).

A previous ITA prepared for the Pegasus Town Limited Mapleham Residential Development and Golf Course (dated September 2005) is used to inform this ITA where applicable.

In 2019, Pegasus Golf Ltd (owned by Sports and Education Corporation Limited) applied to the Waimakariri District Council for resource consent (RC195127) to construct and operate a three-storey hotel comprising of fifty rooms, a restaurant and conference centre and associated carparking. The proposal is a Discretionary Activity and has a split zoning, being Mapleham Rural 4B and Pegasus Rural in the WDP. The development would be located on three vacant lots on Taerutu Lane, to the northwest of the golf club buildings.

3. Existing Land Use and Transport Environment

3.1 Locality

The Pegasus Resort is located near the entrance to the Pegasus Town subdivision, which is located just north of Woodend and opposite Ravenswood, a new commercial and residential subdivision located on the western side of State Highway 1. The site encompasses 8 Mapleham Drive (Lot 204) and is abutted by Pegasus Boulevard.

Pegasus Boulevard is a Local Road under the roading hierarchy set out in the WDP and is subject to a 70km/h speed limit. It intersects with State Highway 1 to the north west of the subject site. East of the State Highway, the surrounding land use is primarily residential and rural.

The location of the site in the context of the wider area is shown in **Figure 3.1**.

Figure 3.1 Pegasus Resort Location (sourced: Canterbury Maps 2019)

3.2 Zoning

The Pegasus Golf and Sports Course, under the WDP, is subject to two separate zonings, as shown in **Figure 3.2**. The Mapleham Rural 4B Zone covers approximately 44 hectares and provides for the subdivision with a maximum of 35 allotments with a minimum area of 1 hectare. The area zoned Rural Pegasus covers approximately 36 hectares and

provides for subdivision allotments with a minimum area of 4 hectares. The current use of the golf club conforms with the current permissible uses of both zones under the WDP.

The area immediately east of the site is zoned a combination of Residential, Business and Rural Pegasus zones. The remainder of the surrounding area primarily comprises Residential, Business and Rural zones.

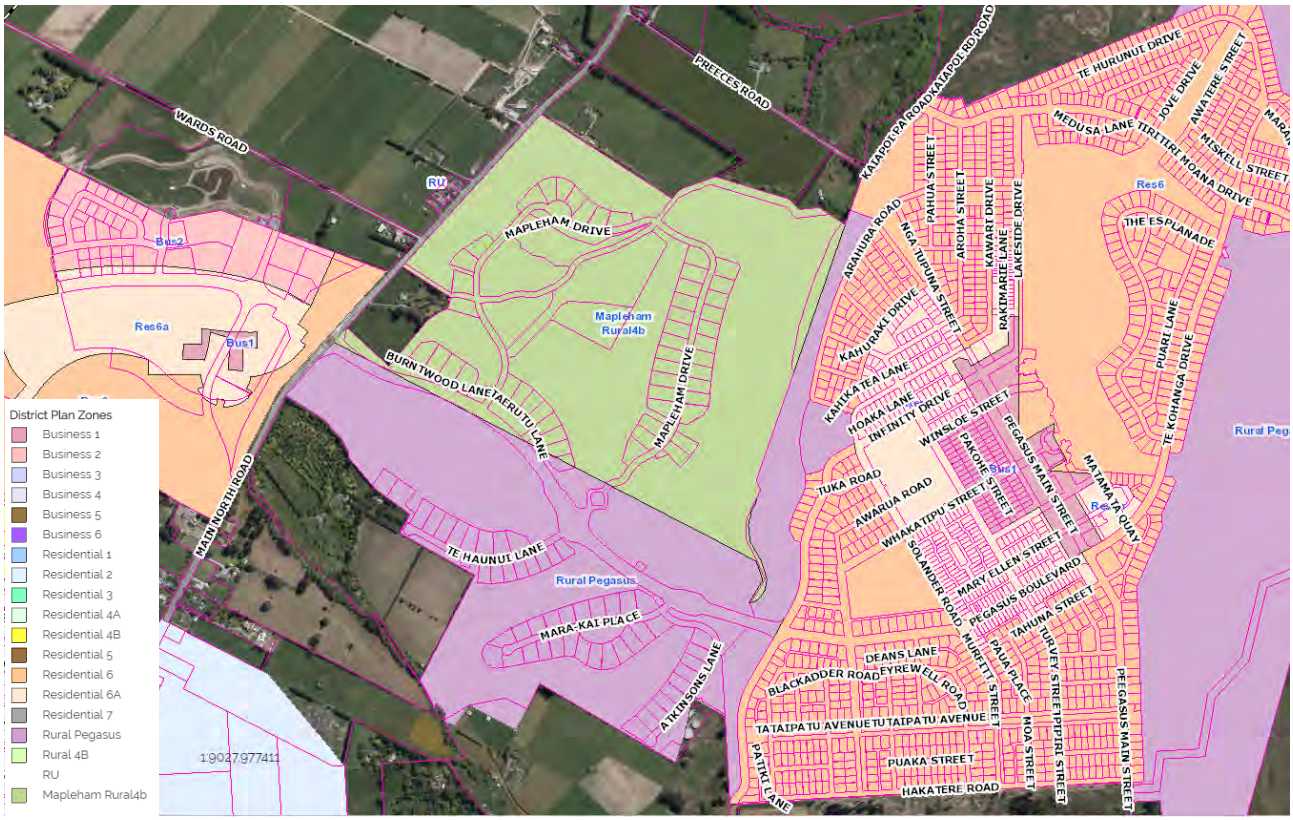


Figure 3.2 WDP Zoning Map

3.3 Existing Land Use

The Pegasus Golf and Sports Course is primarily used as a Golf and Sports Club which includes a 18 hole golf course, a driving range, practice greens, a retail shop, a restaurant, tennis courts and a gym. 57 car parking spaces are provided on site however during the site visit on the 24 November 2019 12 -3pm, it was observed that all spaces were occupied where overflow demand parked on grass.

3.4 Surrounding Roads

The site has frontage to Pegasus Boulevard along its southern boundary and Mapleham Drive along its eastern boundary. The intersection of Pegasus Boulevard, Mapleham Drive and Te Haunui Lane is a roundabout with four approaches. Pegasus Boulevard intersects with State Highway 1 (Main North Road) to the north west of the subject site.

Pegasus Boulevard

Pegasus Boulevard runs in a south western orientation between Main North Road to the north (approximately 0.7km north of the site) and Infinity Drive (approximately 0.5km south of the site). Pegasus Boulevard acts as the main conduit of traffic to and from Main North Road and Pegasus Town.

The segment of Pegasus Boulevard between Main North Road and Infinity Drive, to which the site abuts, is a single carriageway with one traffic lane in each direction. On approach to the Main North Road intersection, Pegasus Boulevard widens to provide a left turn lane and a combined through movement/right turn lane. The carriageway is divided by a

centreline. Edge lines and shoulders (approximately 0.6m-1m wide) are located on both sides of the carriageway. Footpaths are located along both sides of Pegasus Boulevard between Mapleham Drive and Infinity Drive and along the westbound traffic lane between Mapleham Drive and Main North Road.

The WDP classifies Pegasus Boulevard as a Local road. The posted speed limit is 70km/h.

Within the NZ Transport Agency, One Network Road Classification (ONRC) system, Pegasus Boulevard is classified as a Primary Collector. According to the ONRC classification "*These are locally important roads that provide a primary distributor/collector function, linking significant local economic areas or population areas*".

Main North Road (State Highway 1)

As State Highway 1, Main North Road is controlled by the NZ Transport Agency. The road has a posted speed limit of 70km/h in the vicinity of the site and forms part of the NZ strategic road network. In the vicinity of the site, Main North Road runs north-south with a single carriageway with one traffic lane in each direction. On approach to the Pegasus Boulevard roundabout intersection, Main North Road widens to provide two combined through movement/turning lanes.

Main North Road is classified as a Strategic road in the WDP. The NZ Transport Agency ONRC classifies Main North Road as a National State Highway.

Mapleham Drive

Mapleham Drive borders the eastern edge of the site, intersects Pegasus Boulevard and Te Haunui Lane in a roundabout, forms a loop, and intersects Pegasus Boulevard again further north.

Mapleham Drive is classified as a Local road. The ONRC classifies Mapleham Drive as a Low Volume Access Road.

3.5 Existing Traffic Volumes

Traffic flow data for four WDC count stations along Pegasus Boulevard that were last surveyed in 2018 were provided by WDC. **Figure 3.3** shows that the Average Annual Daily Traffic (AADT) of Pegasus Boulevard (just east of SH1) is 6,000-6,500 vehicles per day (vpd) during the week and 5,200 vpd on a weekend as shown below. The peak hour volume was quite similar across the week.

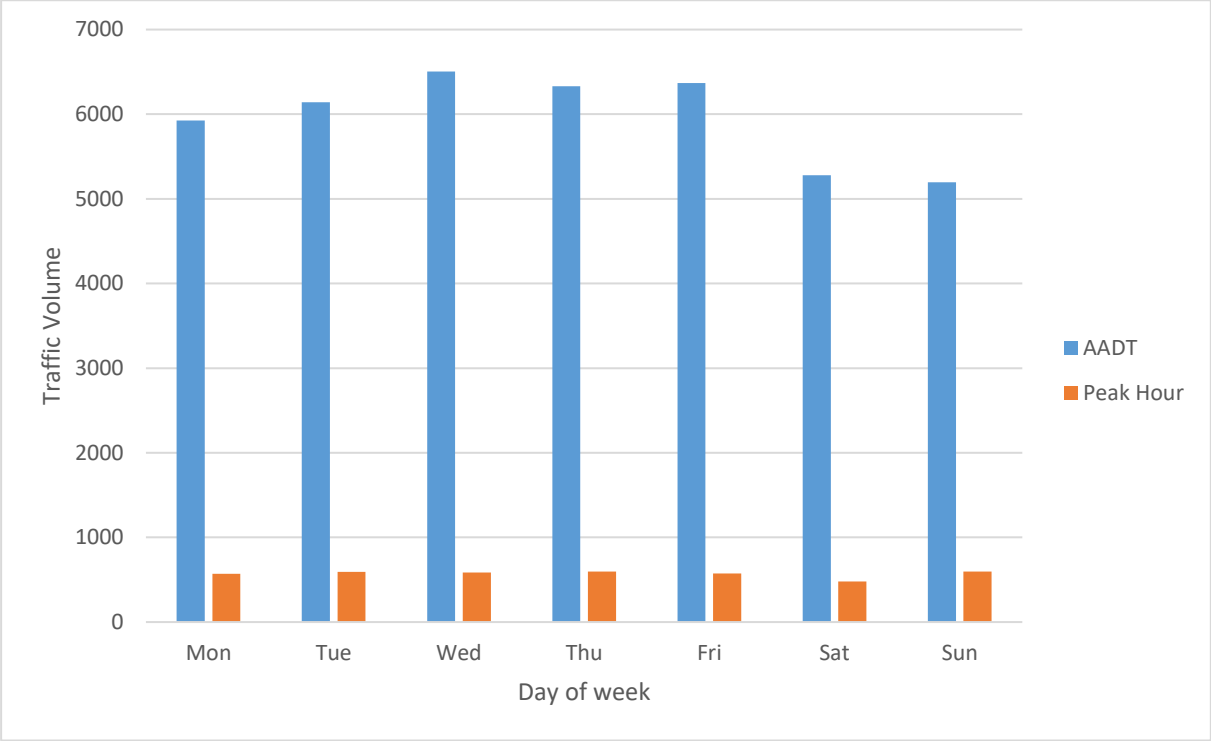


Figure 3.3 Daily Traffic Flow – Pegasus Boulevard

Based on the above traffic flow information, it was decided that a weekday evening 4-6pm and Sunday 12-3pm were the most appropriate time periods for assessment. Therefore, to inform the existing baseline, traffic surveys were undertaken at the Main North Road/Pegasus Boulevard intersection and the Mapleham Drive/Pegasus Boulevard intersection in the afternoon peak (4-6pm) on 21 November 2019 and the Sunday peak (12-3pm) on 24 November 2019.

The traffic volumes counted for each intersection are summarised in **Table 3.1** to **Table 3.4**. The weekday evening peak hour was 5-6pm whereas the Sunday peak hour was 12-1pm. These columns are shown shaded and added up to a peak hour total in the right hand columns.. During the site visit/ survey, it was observed that Pegasus Boulevard between Main North Road and Infinity Drive operated in almost free flowing conditions with minimal delays and queues. Some minor queuing was observed on the north approach of the SH1 roundabout (maximum 4-5 vehicles queueing).

Table 3.1 Traffic counts - Main North Road and Pegasus Boulevard intersection (Thursday)

Approach	Movement	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	Peak Hour Total
North	Left	6	10	6	6	5	10	8	5	*28*
	Through	45	115	122	136	128	142	117	107	*494*
	Right	0	0	2	5	4	4	5	8	*21*
East	Left	22	47	41	41	53	46	39	29	*167*
	Through	0	1	3	0	4	5	3	5	*17*
	Right	2	5	6	14	11	7	13	10	*41*
South	Left	13	11	29	23	40	22	25	24	*111*

Approach	Movement	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	Peak Hour Total
	Through	91	63	96	122	129	117	85	78	*409*
	Right	33	45	72	98	70	127	91	54	*342*
West	Left	2	13	9	10	7	11	8	8	*34*
	Through	0	5	1	8	6	6	4	6	*22*
	Right	3	12	11	13	17	11	11	5	*44*
Total		217	327	398	476	474	508	409	339	*1730*

Table 3.2 Traffic counts - Main North Road and Pegasus Boulevard intersection (Sunday)

Approach	Movement	12:00	12:15	12:30	12:45	1:00	1:15	1:30	1:45	2:00	2:15	2:30	2:45	Peak Hour Total
North	Left	19	8	10	13	17	8	10	5	4	6	11	8	*50*
	Through	87	110	141	124	132	142	145	174	117	138	123	148	*462*
	Right	7	7	8	5	6	4	4	2	10	10	7	9	*27*
East	Left	72	70	88	77	90	70	74	40	37	56	50	43	*307*
	Through	5	7	12	7	6	8	6	7	1	5	7	7	*31*
	Right	13	16	15	10	9	8	5	4	5	8	7	10	*54*
South	Left	13	10	10	13	14	12	22	18	17	5	10	13	*46*
	Through	176	100	145	115	113	90	115	121	140	103	105	94	*536*
	Right	67	45	76	60	53	38	40	53	70	41	58	55	*248*
West	Left	16	10	10	12	14	9	11	13	17	9	9	7	*48*
	Through	14	16	6	6	5	5	8	9	7	6	7	9	*42*
	Right	24	12	15	10	14	15	15	10	11	10	14	16	*61*
Total		513	411	536	452	473	409	455	456	436	397	408	419	*1912*

Table 3.3 Traffic counts - Pegasus Boulevard and Mapleham Drive intersection (Thursday)

Approach	Movement	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	Peak Hour Total
North	Left	0	2	0	3	0	2	1	3	*6*

Approach	Movement	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	Peak Hour Total
	Through	0	0	0	0	0	0	0	0	*0*
	Right	0	1	1	1	1	1	5	4	*11*
East	Left	0	1	0	0	0	1	1	0	*2*
	Through	27	48	56	70	47	55	48	39	*189*
	Right	0	0	1	2	2	1	0	1	*4*
South	Left	0	2	1	0	0	1	0	0	*1*
	Through	0	0	0	0	0	0	0	0	*0*
	Right	0	0	0	0	0	0	0	0	*0*
West	Left	0	3	1	1	2	6	2	3	*13*
	Through	29	79	72	86	79	114	103	110	*406*
	Right	0	1	1	1	0	0	0	1	*1*
Total		*56*	*137*	*133*	*164*	*131*	*181*	*160*	*161*	*633*

Table 3.4 Traffic counts - Pegasus Boulevard and Mapleham Drive intersection (Sunday)

Approach	Movement	12:00	12:15	12:30	12:45	1:00	1:15	1:30	1:45	2:00	2:15	2:30	2:45	Peak Hour Total
North	Left	2	3	3	3	5	6	5	2	2	2	1	1	11
	Through	0	0	0	1	0	0	0	1	1	0	0	1	1
	Right	2	7	4	1	2	7	3	2	1	1	2	7	14
East	Left	0	0	0	0	0	0	0	1	0	0	0	0	0
	Through	100	87	108	84	111	81	73	51	41	61	65	53	379
	Right	0	2	2	6	0	4	2	3	1	5	2	0	10
South	Left	0	1	0	1	0	0	0	1	1	1	0	0	2
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	0	0	1	0	0	0	0	0	0	1	0	2	1
West	Left	1	1	4	8	5	6	2	4	2	4	3	0	14
	Through	70	61	75	70	78	65	69	56	55	58	57	53	276

Approach	Movement	12:00	12:15	12:30	12:45	1:00	1:15	1:30	1:45	2:00	2:15	2:30	2:45	Peak Hour Total
	Right	1	0	0	1	0	0	0	0	2	0	0	0	2
Total		176	162	197	175	201	169	154	121	106	133	130	117	710

3.6 Safety

Crash History

A search of the NZ Transport Agency Crash Analysis System (CAS) database for the period of 2015 to 2019 (inclusive), identified 21 crashes in the vicinity of the site. The crashes are summarised in **Table 3.5** and details are included as Appendix A.

The search area included:

- Intersection of Pegasus Boulevard, Mapleham Drive and Te Haunui Lane (crashes within 50m)
- Intersection of Pegasus Boulevard, Main North Road and Bob Robertson Drive (crashes within 50m)
- Intersection of Pegasus Boulevard and Mara-Kai Place (crashes within 50m)
- Intersection of Pegasus Boulevard and Infinity Drive (crashes within 50m)
- Pegasus Boulevard, between Main North Road and Infinity Drive

Table 3.5 Crash data (2015-2019)

Location	Fatal	Serious	Minor	Injury Total	Non-Injury	Total
Intersection of Pegasus Boulevard, Main North Road and Bob Robertson Drive (crashes within 50m)	0	0	1	1	16	17
Intersection of Pegasus Boulevard and Infinity Drive (crashes within 50m)	0	0	0	0	1	1
Pegasus Boulevard, between Main North Road and Infinity Drive	0	0	1	1	2	3
Total	0	0	2	2	19	21

The crash history shows that crashes are concentrated (17 out of 21) at the Main North Road and Pegasus Boulevard roundabout. This is likely to be largely related to the high traffic volumes at the full movement intersection. Out of the 17 crashes at the SH1 roundabout eight were loss of control type crashes and four were associated with lane changes, which suggests that motorists are not negotiating the double lane roundabout well. The roundabout operates under a 70km/h speed limit which may not be appropriate.

The Pegasus Boulevard corridor between Main North Road and Mapleham Drive had only 3 reported non-injury crashes. Overall, there are no obvious safety concerns along Pegasus Drive however the SH1/ Pegasus Drive roundabout should be further investigated.

Risk Maps

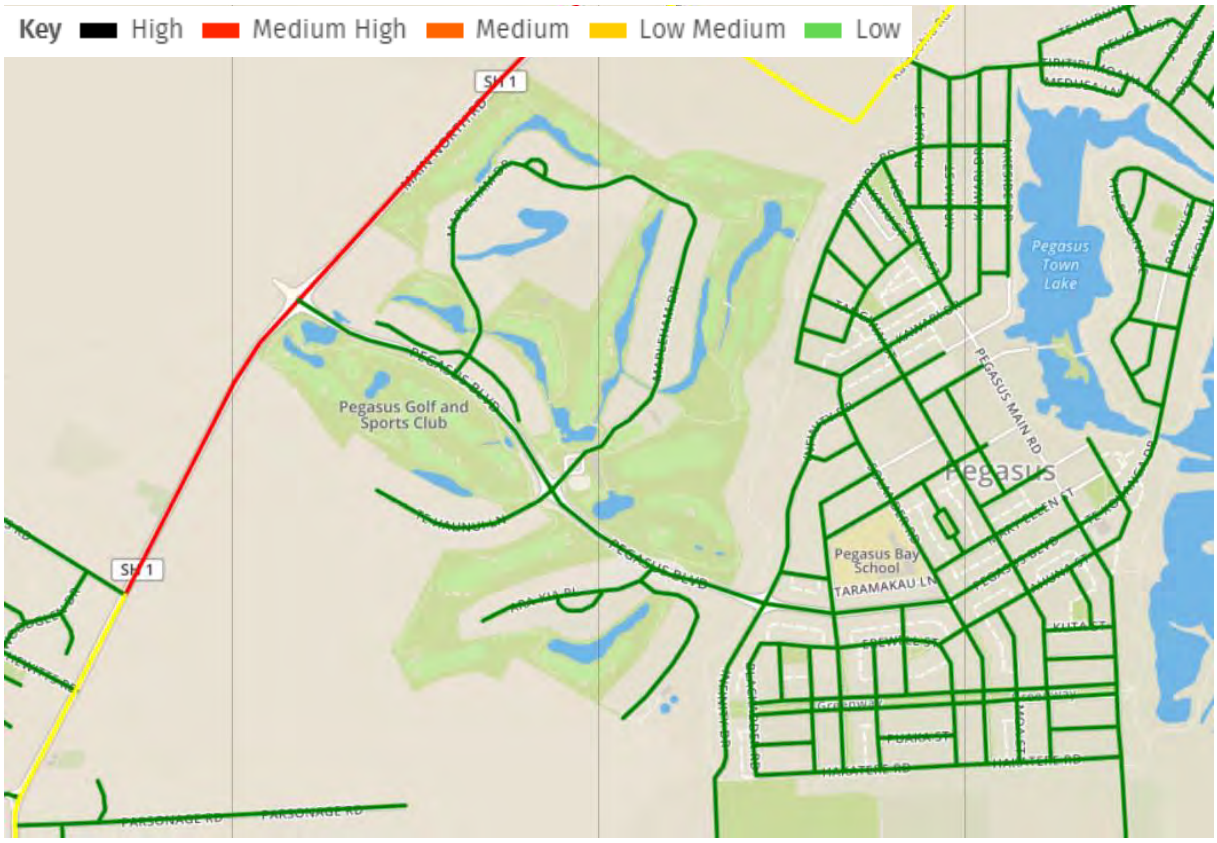
The New Zealand Road Assessment Process, Urban KiwiRAP[2], is used to analyse the road safety of urban road corridors. The two types of risk metric that form the fundamental risk mapping protocols for Urban KiwiRAP are Collective Risk and Personal Risk as described below:

- Collective Risk is a measure of the total estimated death and serious injury[3] (DSi) casualty equivalents for a site. It is effectively a measure of the number of deaths and serious injuries that can be expected at a site over the next analysis period (typically five years). At a corridor level, Collective Risk is the total estimated DSi casualty equivalents derived from the intersection and midblock components divided by the length of the corridor. It is expressed as estimated DSi / km.
- Personal Risk is a measure of the risk of an individual dying or being seriously injured at a site. It is calculated by dividing Collective Risk by a measure of traffic volume exposure.

The risk rating categories are low, low-medium, medium, medium-high and high (worst). The maps[4] showing these ratings for roads adjacent to the Pegasus Resort are included in **Figure 3.4** and **Figure 3.5**.

The risk rating will identify any potential safety issues if traffic volumes on a particular road were to increase. The data shows that Main North Road has a “Medium High” Collective Risk rating and a “Medium” Personal Risk rating and Pegasus Boulevard has a “Low” Collective Risk and a “Low Medium” Personal Risk rating.

As Collective Risk is a measure of the number of crashes per length (km), generally roads with a higher traffic volume have a higher Collective Risk. Given that Main North Road is a part of the strategic road network this is somewhat expected.



[2] https://roadsafetyrisk.co.nz/kiwi-rap
[3] Serious injuries- Fractures, concussion, internal injuries, crushings, severe cuts and lacerations, severe general shock necessitating medical treatment, and any other injury involving removal to and detention in hospital.
[4] https://roadsafetyrisk.co.nz/maps/personal-risk#Canterbury

Figure 3.4 Collective Risk Map

Personal risk on the other hand is relatable to the public as it shows the risk to an individual using that road. As Personal Risk along both corridors are categorised as Medium, the subject corridors do not require any road safety improvements.

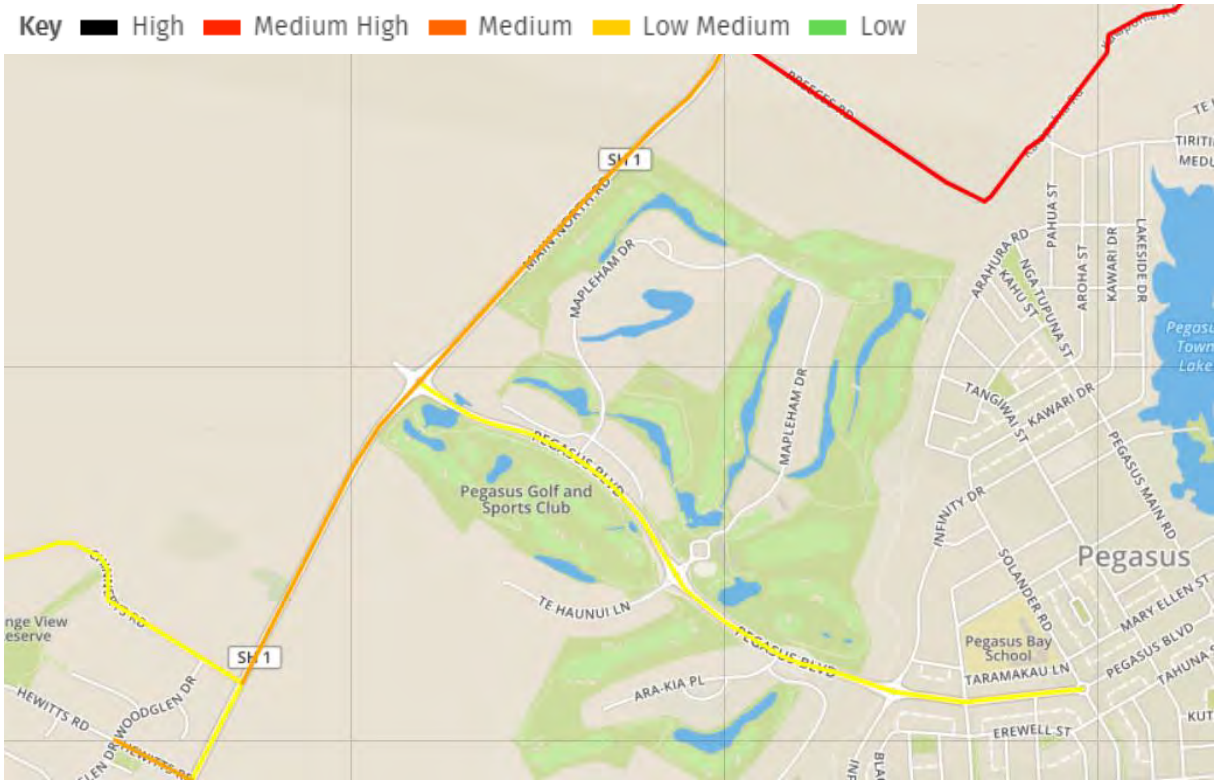


Figure 3.5 Personal Risk Map

3.7 Walking Facilities

The Pegasus Resort site is well connected to the pedestrian network of the Pegasus Town Residential Development. Pegasus Boulevard and Infinity Drive have footpaths on both sides of the road in the vicinity of the site, and Mapleham Drive has a footpath provided along the inner lane. Two pedestrian/ cycle underpasses beneath Pegasus Boulevard are provided 80m northwest and 350m southeast of the golf course entrance. It should be noted that the footpaths are also used by low powered golf carts. No footpaths are provided along Main North Road except around the Pegasus Boulevard roundabout.

Figure 3.6 Footpaths along Pegasus Boulevard

The Main North Road/Pegasus Boulevard roundabout has pedestrian refuge islands with kerb cut downs on three approaches to accommodate crossing pedestrians. No crossing facilities across Pegasus Boulevard are provided at the Pegasus Boulevard/Mapleham Drive roundabout, however as this a lower volume intersection, with no reported crashes involving pedestrians between 2012-2019, this is deemed appropriate for the site.

3.8 Cycling Facilities

The Waimakariri District has two major cycle routes; the Rangiora Woodend Path and the Rangiora to Kaiapoi Path, as shown in **Figure 3.7**. The Rangiora Woodend route consists of a 6.5km sealed off road shared path which connects residents of Woodend to Rangiora. It also provides a connection between Woodend and Kaiapoi and Christchurch via Rangiora, and connects to other facilities such as the Woodend Beach path. The Rangiora to Kaiapoi Path, also known as the Passchendaele Memorial Cycle-Walk Path, is an 8km off road shared path. It provides a connection from Rangiora to Christchurch via a link to the Christchurch major cycle routes. The northern end of the cycleway connects to the existing on-road facilities at Southbrook in Rangiora. The Waimakariri District Walking and Cycling Guide (2017 to 2020) does not detail any proposed major cycle ways in the immediate proximity of the site.

However, in the vicinity of the site there is some provision for cyclists. Connections between Ravenswood and Pegasus Town are facilitated by shared paths and crossing facilities at the Pegasus Boulevard / Main North Road roundabout. Main North Road has sealed shoulders varying in width between approximately 1.5m and 2.5m, however no cycle lanes are provided. Cycle lanes are marked on both the north and south approaches to the Pegasus Boulevard / Main North Road roundabout, which guide cyclists off the road onto a shared path. Refuge islands are provided on the eastern, southern and western approaches. The shared path extends west of Main North Road along Bob Robertson Drive to the

Ravenswood development. Pegasus Boulevard does not have any formal cycle facilities, however there is a sealed path on the southern side that is typically 2.2m wide and could accommodate cyclists if used as a shared path.

An unsealed walking and cycling path between Gladstone Park and Hakatere Road, Pegasus started construction in 2019. This assists in providing an alternative cycle route between Ravenswood, the proposed development, Pegasus and Woodend that avoids use of Main North Road.

Within Pegasus Town, there are marked cycle lanes on Infinity Drive, Solander Road, Murfitt Street and Pegasus Boulevard (east of Infinity Drive) and several recreational paths around the edge of the golf course that connect residential areas.

Figure 3.7 Cycle facilities in the area (sourced: Urban Cycleways Programme)

3.9 Crossing the State Highway

The crash history does not indicate an obvious safety concern at the SH1 roundabout. During the site visit it was observed that crossing the State Highway was problematic due to the high volume of traffic and vehicle speeds. Currently very few pedestrian/ cycle movements exist however, as Ravenswood and Pegasus subdivisions grow more

pedestrian and cycle usage is anticipated. Therefore, an appropriate pedestrian/ cycle crossing may be required for such users to safely cross the State Highway.

3.10 Public Transport

The Pegasus Resort has limited accessibility by public transport as follows:

- Two bus stops (northbound and southbound) are located approximately 740m north of the site along Pegasus Boulevard, at the intersection with Main North Road.
- Two bus stops (northbound and southbound) are located at the intersection of Infinity Drive and Pegasus Boulevard.
- Six additional pairs of bus stops are located along Pegasus Boulevard within the Pegasus Town Residential Development.

The site is serviced by the Bus Route 95 which operates between Christchurch City and Waikuku, via Pegasus. This bus route operates every hour between 6:30am and 10:00pm Monday to Saturday. **Figure 3.8** below shows the location of the existing bus stops in relation to the site. Changes to this route are currently being consulted on. Details are included in Chapter 6.

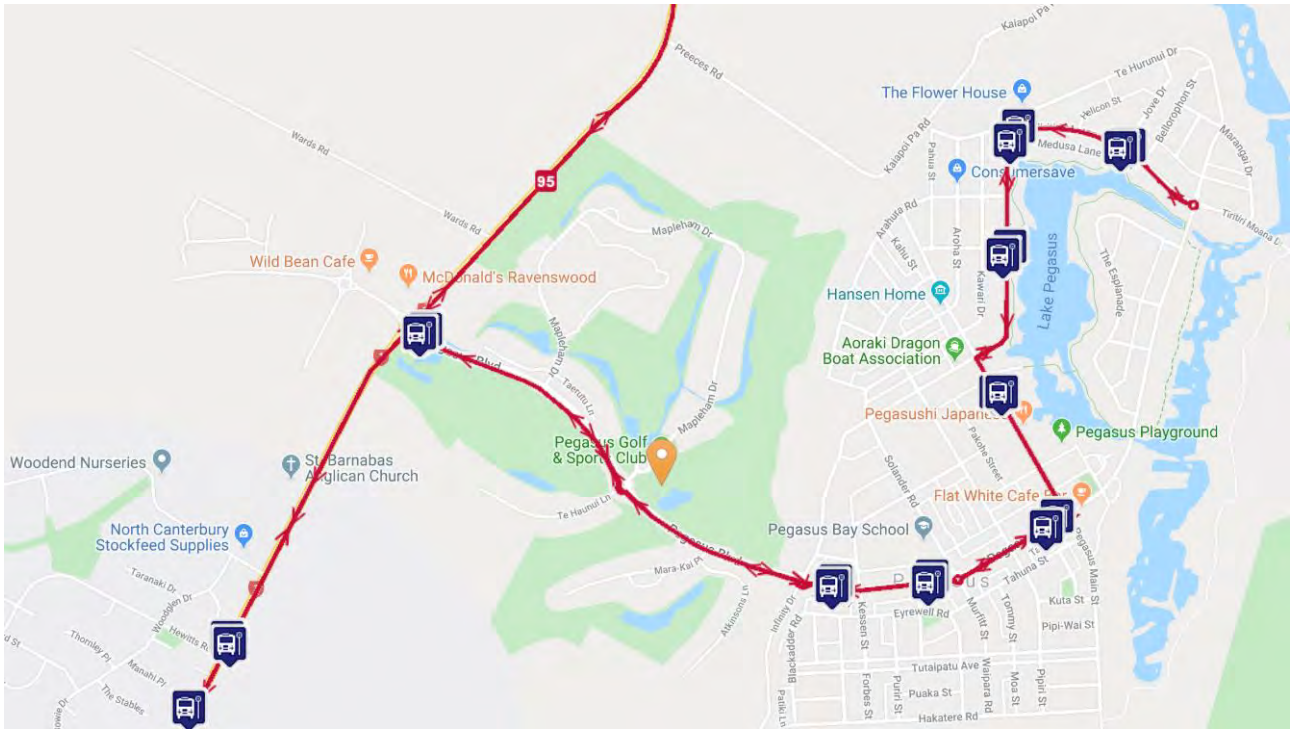


Figure 3.8 Public transport options (sourced: Metro Bus Service)

4. Future Receiving Environment

4.1 Pegasus Town

Pegasus Town is a residential subdivision to the east of the Pegasus golf course. Resource consent was granted circa 2006 to construct 1800 residential units to accommodate 4500 residents with a primary school, recreational parks, community facilities, commercial and retail offerings. Based on NZ Census 2018 data only 60% of Pegasus is occupied. Currently access to the subdivision is provided via Pegasus Boulevard however as the subdivision grows vehicle access to Kaiapoi Pa Road to the north and Gladstone Road to the south is anticipated.

4.2 Ravenswood Village

Ravenswood is a residential and commercial development located to the west of the Pegasus golf course. The total Ravenswood subdivision area is approximately 150 ha and includes 1,352 residential sections ranging in size from 310m² to 700m². The subdivision is bounded by the township of Woodend to the south, State Highway 1 to the east, Rangiora Woodend Road to the west and rural land to the north.

Access to the site is provided via the State Highway 1/Pegasus Boulevard roundabout and a secondary roundabout on the Rangiora Woodend Road. The roundabout on State Highway 1 will provide access to the commercial precinct of the subdivision. The Stage 1 of the Ravenswood subdivision is currently under construction.

The extent of the Ravenswood Subdivision project is shown in **Figure 4.1** below.

Figure 4.1 Ravenswood Masterplan

4.4 Woodend Short Eastern Alignment

Traffic volumes along State Highway 1 (Main North Road) through Woodend are expected to double over the next thirty years. The increase in traffic is due to an increase in residential developments in the area and an increase in long distance freight movements along the state highway. To accommodate this increase in traffic, a new section of highway that runs to the east of Woodend is planned by the NZ Transport Agency.

The new bypass will have four-lanes and will link in with the current motorway at Lineside Road and run to the entrance to Pegasus at the intersection of Pegasus Boulevard and SH1. The project aims to improve capacity and efficiency of traffic travelling through the Woodend corridor and improve interconnectivity between residents and businesses in Woodend, Pegasus, and Kaiapoi.

The bypass does not have a confirmed construction date.

Figure 4.2 Woodend Corridor Bypass

5. Rezoning Proposal

The proposal seeks to rezone approximately 14ha of land to the immediate north of Pegasus from Rural residential to Resort, as Pegasus Resort Special Purpose Zone which would facilitate the development of the following recreational and hospitality offerings.

- Golf club house, gym, golf shop and ancillary facilities
- Hotel/ Apartment style visitor accommodation
- Conference/ events venue
- Retails and commercial activity
- Residential apartments and units
- Spa and recreational water park

The proposed Outline Development Plan (ODP) is shown below.

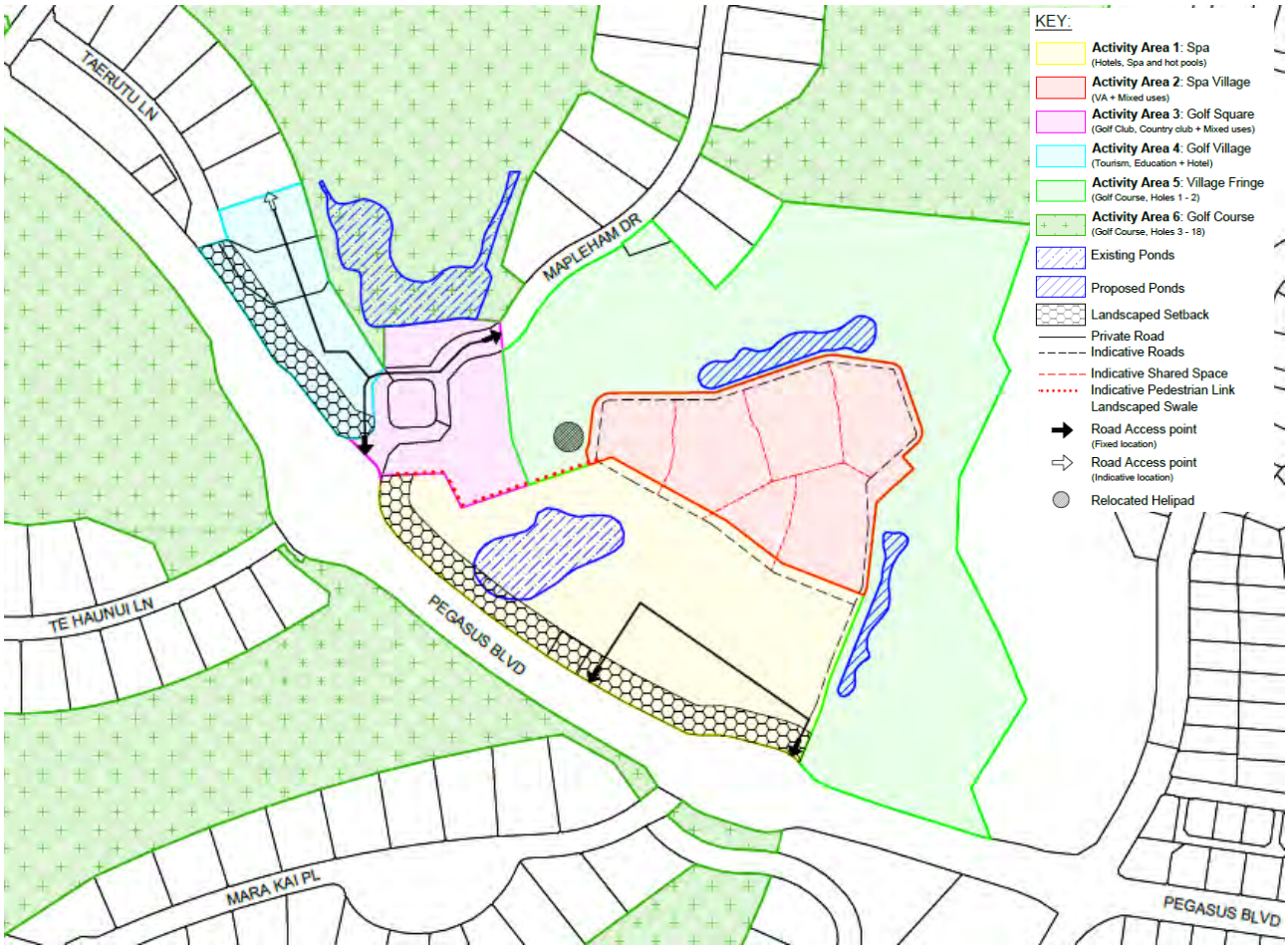


Figure 5.3 Pegasus Resort ODP

Access Arrangement

Pegasus Resort will have access to the wider transport network via Mapleham Drive and potentially via new accesses on Pegasus Boulevard. An internal road network linking the new intersections on Pegasus Boulevard and Mapleham Drive through the Pegasus Resort is likely. New vehicle accesses would be beneficial to provide better circulation through the site and to separate bus/ coach movements and other road users.

The development will be accessed in a similar manner to the existing Golf and Sports Club. Car parking, loading and manoeuvring space for the resort uses will be provided on site with internal connectivity, however certain car parking areas may be restricted for the use of a specific activity. Vehicle accesses and parking layouts of the proposal will be designed to comply with WDC District Plan requirements and will be detailed at resource consent stage. It is envisaged that pedestrian and cycle paths would run though the Pegasus Resort linking the site to the existing shared paths/ foot paths along the wider road network.

The indicative masterplan is shown in **Figure 5.4** and a breakdown of activity areas is shown in **Table 5.1**.

Figure 5.4 Indicative Masterplan

Table 5.1 Activity Areas

Pegasus Resort SPZ Activity Areas:	
Activity Area 1: Spa	3.66ha
Activity Area 2: Spa Village	2.16ha
Activity Area 3: Golf Square	1.03ha
Activity Area 4: Golf Village	1.02ha
Activity Area 5: Village Fringe	6.11ha
Sub Total	**13.98ha**
Activity Area 6: Golf Course	64.66ha
Total	**78.64ha**

6. Accessibility

Motor Vehicle

The site is well connected to the strategic road network via Pegasus Boulevard. The SH1/ Pegasus Boulevard roundabout has been designed to accommodate fully developed Ravenswood and Pegasus Town developments. The proposed Woodend Bypass and Christchurch Northern Motorway projects will further improve connectivity between the Resort and the Christchurch CBD and the International Airport where most hotel, conference and golf guests are expected to arrive from or depart to.

The suitability of the nearby intersections has been assessed in Chapter 8.

Public Transport

The Resort site is located on an existing public transport corridor with limited services (every 30 minutes during peak hours and hourly for the remainder). However, bus route changes to the Waimakariri region are proposed by Environment Canterbury (ECAN). The following changes, which are directly related to Pegasus are proposed to the existing network and are currently in public consultation.

- *The 95 would travel from Pegasus to the city during the morning peak hours (about 6.30-8am), and back from the city during the afternoon peak hours (about 2.30-6pm).*
- *Pegasus would be connected to Woodend, Kaiapoi and Silverstream by proposed Pegasus-Silverstream Link.*
- *To travel to the city outside of peak hours and during weekends, Pegasus residents could travel on the proposed Pegasus-Silverstream Link service to Kaiapoi's town centre, and transfer to the Blue Line.*

The proposed changes to the services will provide better connectivity between Pegasus and nearby Woodend, Silverstream, Kaiapoi and Rangiora and as a result would provide an alternative to private motor vehicle.

The proposed changes to the bus network are shown in Appendix B.

The nearest bus stops are located approximately 750m west and east of the Mapleham Drive / Pegasus Boulevard roundabout, equating to about a 10-minute walk from the site. In order to encourage public transportation use, it is recommended that additional bus stops are provided in the immediate vicinity of the Mapleham Drive / Pegasus Boulevard roundabout to better service the Resort.

Walking and Cycling

The Resort road network is expected to be designed to ensure that pedestrians/ cyclists can conveniently walk/ cycle between it and nearby residential areas via the existing road network/ shared paths that run along Pegasus Boulevard. However, it's worth noting that pedestrian accessibility could be significantly improved through the provision of a formal pedestrian/ cycle crossing across Main North Road to improve connectivity between Ravenswood and Pegasus.

The provision of cycle parking and end of trip facilities are anticipated and will encourage customers and employees to cycle especially those who live within 2km-5km radius from the Resort. The existing shared paths on Pegasus Boulevard and Bob Robertson Drive will link users to the wider walking/cycle network.

At resource consent stage, internal roads and car parking at the Pegasus Resort will be designed in line with Crime Prevention Through Environmental Design (CPTED) principles. All customer cycle parking spaces will be provided along the main façade of buildings to provide passive surveillance of bicycles. The car park and areas with pedestrian movement will be lit to an appropriate level and potentially monitored to maximise safety.

7. Travel Characteristics and Trip Generation

7.1 Trip Generation

The Pegasus Resort will provide a range of land use/ activities. The following land uses are currently anticipated;

- Golf club house, gym, golf shop and ancillary facilities
- Hotel/ Apartment style visitor accommodation
- Conference/ events venue
- Retails and commercial activity
- Residential apartments and units
- Spa and recreational water park

Estimated gross floor area/ number of units were provided by the urban design consultant. These gross floor areas are not finalised and should be treated as preliminary only.

The traffic surveys informed the trip generation of the existing golf club. Trip rates for each proposed land use was sourced from three commonly used trip rate sources, namely;

- NZ Transport Agency Research Report 453 Trips and parking related land use.
- TRICS trips database
- RMS/ RTA NSW Guidelines to Traffic Generating Developments

Where an appropriate trip rate was unavailable a first principles approach was used to estimate the trip generation of that activity. Land use GFA and associated trip rates for the weekday peak hour and Sunday peak hour are summarised in **Table 7.1**.

Table 7.1 Land use and trip rates

	Development Stage	Land Use	Unit	Peak Hour Trip Rate	Weekday Peak Hour Trip Generation	Sunday Peak Hour Trip Generation
Existing	Golf Square	Golf Club	1200 GFA	Existing	32	50
Stage 1		Golf Club	800 GFA	Same as existing	21	33
		Golf Academy	1650 GFA	Same as existing	44	59
		Retail/ Commercial	1000 GFA	5.2 per 100m^2 for weekday (RTA) 9.0 per 100m^2 for weekend day (RTA)	52	91
	Spa	Hotel & Lodge	175 Rooms	0.4 per room (RTA)	76	76
		Hotel Café	220	5 per 100m^2 (RTA)	11	11
		Hotel Restaurant	600	5 per 100m^2 (RTA)	30	30
		Hotel Bar	350	15.6 per 100m^2 (RR453)	55	55
		Conference Rooms	200 pax per event	On a typical day 80% will be full with 50% arriving by private vehicle whilst the other 50% is in buses or staying at the onsite hotel	80	80

		Spa Facility	1000 pax a day	Capacity is 1000 visitors a day with 20% arriving or departing in the peak hour. 50% capacity on weekday and 90% on weekend. Vehicle occupancy of 3 per vehicle.	67	120
		Retail/ Commercial	2000 GFA	5.2 per 100m^2 for weekday (RTA) 9.0 per 100m^2 for weekend day (RTA)	104	182
	Spa Village	Residential Units/ Apartments (Size Varies)	250 units	0.7 per unit Average of the following rates: • Outer Suburban • Retirement Unit Hotel • Motel	175	88
		Retail/ Commercial	1000 GFA	5.2 per 100m^2 for weekday (RTA) 9.0 per 100m^2 for weekend day (RTA)	52	91
Stage 2	Golf Village	Hotel & Lodge 60 Rooms	2532	0.4 per room (RTA)	41	41
		Hotel Restaurant	350	5 per 100m^2 (RTA)	18	18
		Hotel Bar	220	5 per 100m^2 (RTA)	34	34
		Conference Rooms	1000	On a typical day 80% will be full with 50% arriving by private vehicle whilst the other 50% is in buses or staying at the onsite hotel	40	40
		Retail/ Commercial	1000 GFA	5.2 per 100m^2 for weekday (RTA) 9.0 per 100m^2 for weekend day (RTA)	52	91
Completed Resort					984	1190
Internal Trips Removed					656	737

The above trip rates assume that each activity operate independently. However, in reality trips are likely to be shared between activities. For example, some of the golf club visitors could stay at any of the on-site accommodation options on offer. Similarly, the hotel bar and café could be used by hotel guests or golf club visitors already on site. To account for these shared trips within the resort, the trip generation of all activity was discounted by 20% whilst retail/ commercial rates were discounted by 50%. Consequently, the resort is expected to generate approximately 530 two-way trips on a weekday peak hour and 593 two-way trips on Sunday peak hour. A further 127 two-way trips on a weekday peak hour and 142 two-way trips on Sunday peak hour will be added to the network by the Golf Village.

7.2 Trip Distribution

Trips associated with the golf club/ academy, 20% of retail/ commercial and 20% of the spa village accommodation were assigned to the existing Mapleham Drive Roundabout whereas the remainder of the stage 1 resort was assigned to two new intersections anticipated between Mapleham Drive and Infinity Drive. The intersection closest to Mapleham Drive will be a left in left out intersection primarily designed to accommodate hotel and spa visitors. A full movement intersection providing access to the spa village will be located between Mara Kai Place and Infinity Drive.

The existing turning movement proportions were used to inform the trip distribution. In general, 60% of trips will be arriving/ leaving from the west whilst the remainder will be from Pegasus Town. However, considering the new land uses, the above distribution is anticipated to change with more demand coming and going to Main North Road (SH1). The trips for each land use were split according to **Table 7.2**.

Table 7.2 Anticipated Trip Distribution

Land Use	Origin/ Destination is Pegasus Town	Origin/ Destination is via SH1/ Pegasus Boulevard Roundabout
Golf Club	40%	60%
Residential	20%	80%
Retail/ Commercial	50%	50%
Hospitality – Dining, Café and Bar	40%	60%
Hospitality – Conference/ Events	0%	100%
Accommodation	0%	100%
Spa/ Water park	10%	90%
Average Proportion	**23%**	**77%**

8. Effects on Transport Network

8.1 Modelling Approach

Pegasus Boulevard currently carries approximately 6,000 vehicles a day. During the site visit and surveys, it was observed that Pegasus Boulevard between Main North Road and Infinity Drive operates in almost free flowing conditions with minimal delays and queues.

Pegasus Town was granted resource consent in 2006, to provide 1800 residential dwellings. However, based on the 2018 census, Pegasus Town has only 1059 dwellings, which is 60% of the anticipated 1800 dwellings. Therefore, for a robust assessment the surveyed traffic flow has been adjusted to reflect a fully developed Pegasus Town. The surveyed traffic flows associated with Pegasus Town were increased by 40%. In addition, the traffic flow along Main North Road was increased by 2% per annum to adjust for traffic growth along the State Highway.

In addition, a sensitivity test was conducted by increasing the traffic volume in and out of Ravenswood by 150% to account for the fully developed Ravenswood residential and commercial developments.

The future year was chosen as 2029 (10 years from current). The following scenarios were modelled;

Weekday Peak Hour

- 2019 base with semi developed Pegasus Town and Mapleham subdivisions and golf course
- 2029 base with fully developed Pegasus Town and Mapleham subdivisions and golf course
- 2029 base with Stage 1 development
- 2029 base with full development (incl second hotel)
- 2029 base with full development and sensitivity test for Ravenswood

Sunday Peak Hour

- 2019 base with semi developed Pegasus Town and Mapleham subdivisions and golf course
- 2029 base with fully developed Pegasus Town and Mapleham subdivisions and golf course
- 2029 base with Stage 1 development
- 2029 base with full development (incl second hotel)
- 2029 base with full development and sensitivity test for Ravenswood

8.2 Model results

The performance of the subject roundabouts for the above scenarios was tested using SIDRA Intersection 8 Software. SIDRA Intersection offers a range of outputs for any given model. The outputs selected for this analysis are:

- Degree of Saturation (DoS)
- Average delay (seconds);
- Level of Service (LOS); and
- 95th percentile back of queue and queue distance (metres).

The DOS is a ratio of the demand placed on the intersection against the capacity of the intersection. A DOS equal to 1.0 indicates that the intersection is operating at its maximum theoretical capacity.

Average delay is the average delay experienced by vehicles travelling through an intersection and includes deceleration, queuing, stopping and acceleration.

The LOS generally describes the traffic conditions in terms of travel time, volume, capacity, freedom to manoeuvre and convenience. The LOS ranges from A to F where A represents the least impediment to vehicle movement and F represents heavy congested conditions.

The 95th percentile back of queue and queue distance is the value below which 95% of all observed queue lengths fall (i.e. 5% of all observed queue lengths exceed this value).

One of the key metrics reported is the Level of Service (LOS) at an approach level and overall at each intersection. Typically, in assessments of intersections in peak demand periods the industry best practice is to keep the operation of an intersection at or below LOS E although LOS F can be tolerated in busy urban environments. A general description of level of service is shown in **Table 7.3**.

Table 7.3 Level of Service (LOS) general descriptions

Level of Service Band	General Traffic Flow Description
LOS A	Primarily free-flow operation
LOS B	Reasonably unimpeded operation
LOS C	Stable operation
LOS D	A less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed
LOS E	Characterised by unstable operation and significant delay
LOS F	Characterised by flow at extremely low speed. Congestion is likely occurring at the boundary intersections, as indicated by high delay

Performance of the road network for each of the scenarios is described below with a summary at the end of the section. Detailed outputs are included in Appendix C and D.

8.3 Intersection performance

2019 base with semi developed Pegasus Town and Mapleham subdivisions and golf course

The performance of the two nearby intersections mentioned previously has been modelled with the collected turning movement data. The modelled queues were calibrated using observed queues.

The results show that the intersections operate with minimal queues and delays with an overall LOS A at both the SH1 roundabout and Mapleham Drive roundabout. The worst approach for the SH1 intersection, which is SH1 North has a degree of saturation of 0.398 with 7.1 seconds average delay. The worst approach for the Mapleham Drive intersection, which is Pegasus Boulevard North West has a degree of saturation of 0.267 with 4.7s average delay.

The Sunday results were similar with minimal queuing and delays at both intersections.

2029 base with fully developed Pegasus Town and Mapleham subdivisions and golf course

For this scenario, the above traffic volumes were increased to account for 10 years traffic growth and a fully developed Pegasus Town subdivision.

Similar to the existing scenario, the results show that the intersections operate with minimal queues and delays with an overall LOS A at both the SH1 roundabout and Mapleham Drive roundabout. The worst approach for the SH1 intersection, which is SH1 North has a degree of saturation of 0.646 with 12.8s average delay. The worst approach for the Mapleham Drive intersection, which is Pegasus Boulevard North West has a degree of saturation of 0.479 with 4.9s average delay.

The Sunday results were similar with minimal queuing and delays at both intersections.

2029 base with Stage 1 development

For this scenario, the above traffic volumes were increased to account for the Stage 1 components of the Resort. Furthermore, a new left in/ left out intersection and a three-legged roundabout between Mara-kai Place and Infinity Drive is proposed. The roundabout location satisfies the minimum distance to nearby intersections criteria of the WDP.

The results show that the intersections operate with reasonable queues and delays with SH1 roundabout performing with an overall LOS B and Mapleham Drive roundabout performing at LOS A. This demonstrates that there is capacity within the receiving environment to accommodate additional traffic associated with the proposed plan change, without adversely affecting the performance of the receiving transport environment.

The worst approach for the SH1 intersection, which is SH1 North has a degree of saturation of 0.901 with 37.3s average delay. The worst approach for the Mapleham Drive intersection, which is Pegasus Boulevard North West has a degree of saturation of 0.649 with 9.0 seconds average delay. The new roundabout intersection will operate with a degree of saturation of 0.515, an average delay of 5.7s and LOS A.

The Sunday results were similar with LOS B at the SH1 roundabout, LOS A at Mapleham Drive roundabout and Mara-Kai Place roundabout.

2029 base with full development (including second hotel)

For this scenario, the above traffic volumes were increased to account for the Stage 2 components of the Resort.The results show that the intersections operate with reasonable queues and delays with SH1 roundabout performing with an overall LOS B and and Mapleham Drive roundabout performing at LOS A. The worst approach for the SH1 intersection, which is SH1 North has a degree of saturation of 0.734 with 27.6s average delay. The worst approach for the Mapleham Drive intersection, which is Pegasus Boulevard North West has a degree of saturation of 0.658 with 5.0s average delay. The new roundabout intersection will operate with a degree of saturation of 0.524, an average delay of 5.7s and LOS A.

The Sunday results were similar with LOS B at SH1 roundabout, LOS A at Mapleham Drive roundabout and Mara-Kai Place roundabout.

2029 base with full development and fully developed Ravenswood

In this scenario, in order to account for a fully developed Ravenwood subdivision, the existing traffic flows in and out of Bob Robertson Drive were increased by 160%. This increased trip generation is associated with the residential, commercial and supermarket land uses as the McDonalds and BP fuel station are part of the existing trip generation.

The following trips were added to the SH1/ Pegasus Boulevard roundabout.

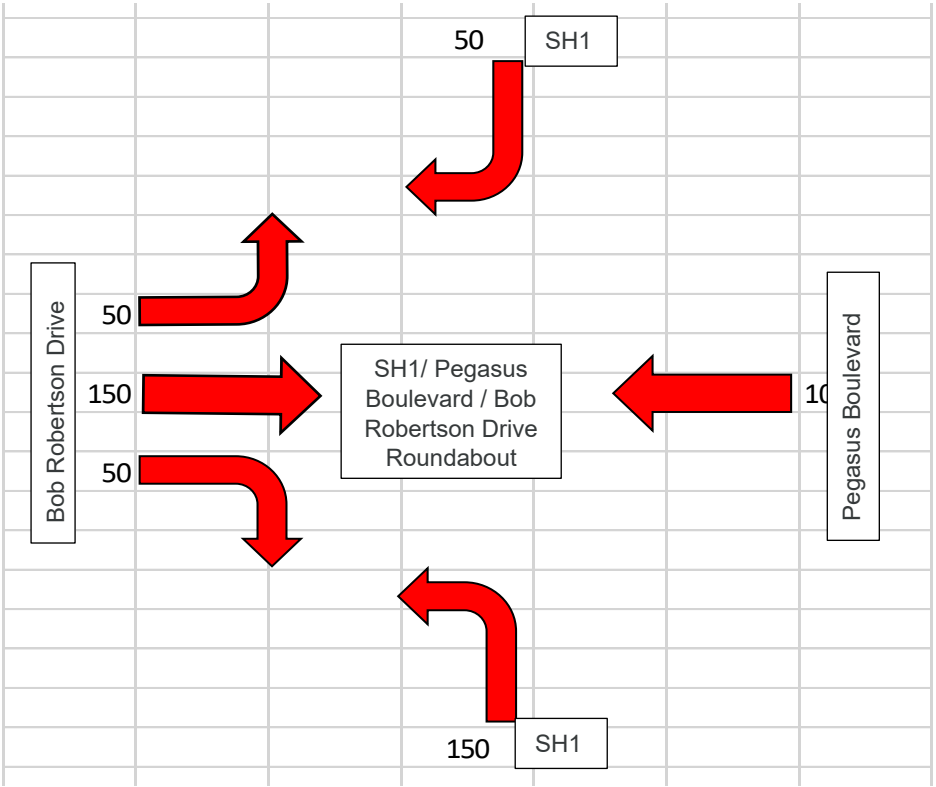


Figure 7.1 Ravenwood Trip Generation

The results showed that in the evening peak hour the intersection would operate at an overall LOS E, with an average delay of 57.7 seconds. The worst approach, SH1 North has a degree of saturation of 1.157 with an average delay of 216.1 seconds and LOS F. The Sunday peak hour shows similar queues and delays with SH1 roundabout performing

with an overall LOS D. The worst approach, which is SH1 North has a degree of saturation of 0.995 with an average delay of 79.8 seconds.

The addition of Ravenswood traffic has minimal impact on the performance of the Mapleham Drive/ Pegasus Drive intersection and the new roundabout for both time periods.

Overall, the introduction of more Ravenswood traffic will affect the performance of the SH1/ Pegasus Boulevard roundabout with a drop in the overall LOS.

8.4 Comparison of Scenarios

To consider the effects of the development it is helpful to see the results of intersection performance for each scenario side-by-side. The existing, future base and with development scenarios for the PM peak hour/ Sunday peak hour for the SH1/ Pegasus Boulevard intersection are shown in **Table 7.4** and **Table 7.5**.

The level of service change between the future base and the development scenarios are acceptable except for the fully developed resort and Ravenswood scenario where the north approach performance is unacceptable.

Table 7.4 SH1/ Pegasus Boulevard weekday peak hour comparison

Approach	Movement	Existing Base	Future Base	Pegasus Resort Stage 1	Full Pegasus Resort	Full Pegasus with Ravenwood
Pegasus Boulevard E	Left	LOS A	LOS A	LOS A	LOS A	LOS A
	Ahead	LOS A	LOS A	LOS A	LOS A	LOS A
	Right	LOS B	LOS B	LOS B	LOS B	LOS B
Approach		LOS A	LOS A	LOS B	LOS B	LOS B
Main North Road N	Left	LOS A	LOS B	LOS D	LOS C	LOS F
	Ahead	LOS A	LOS B	LOS D	LOS C	LOS F
	Right	LOS B	LOS B	LOS C	LOS D	LOS F
Approach		LOS A	LOS B	LOS D	LOS C	LOS F
Bob Robertson W	Left	LOS A	LOS A	LOS B	LOS B	LOS B
	Ahead	LOS A	LOS A	LOS A	LOS B	LOS C
	Right	LOS B	LOS B	LOS B	LOS B	LOS C
Approach		LOS B	LOS B	LOS B	LOS B	LOS C
Main North Road S	Left	LOS A	LOS A	LOS A	LOS A	LOS B
	Ahead	LOS A	LOS A	LOS A	LOS A	LOS B
	Right	LOS B	LOS B	LOS B	LOS B	LOS B
Approach		LOS A	LOS A	LOS A	LOS A	LOS B
Intersection		LOS A	LOS A	LOS B	LOS B	LOS E

Table 7.5 SH1/ Pegasus Boulevard Sunday Peak Hour Comparison

Approach	Movement	Existing Base	Future Base	Pegasus Resort Stage 1	Full Pegasus Resort	Full Pegasus with Ravenwood
Pegasus Boulevard E	Left	LOS A	LOS A	LOS B	LOS C	LOS D
	Ahead	LOS A	LOS A	LOS A	LOS A	LOS B
	Right	LOS B	LOS B	LOS B	LOS B	LOS B
Approach		LOS A	LOS B	LOS B	LOS C	LOS D
Main North Road N	Left	LOS A	LOS B	LOS C	LOS B	LOS F
	Ahead	LOS A	LOS A	LOS C	LOS B	LOS F
	Right	LOS B	LOS B	LOS B	LOS C	LOS F
Approach		LOS A	LOS B	LOS C	LOS B	LOS F
Bob Robertson W	Left	LOS A	LOS B	LOS B	LOS B	LOS B
	Ahead	LOS A	LOS A	LOS A	LOS A	LOS C
	Right	LOS B	LOS B	LOS B	LOS B	LOS D
Approach		LOS B	LOS B	LOS B	LOS B	LOS C
Main North Road S	Left	LOS A	LOS A	LOS A	LOS A	LOS B
	Ahead	LOS A	LOS A	LOS A	LOS A	LOS B
	Right	LOS B	LOS B	LOS B	LOS B	LOS C
Approach		LOS A	LOS A	LOS A	LOS A	LOS B
Intersection		LOS A	LOS A	LOS B	LOS B	LOS D

8.5 Summary of Development Effects

This section has described the effects to the road network as a result of the proposed Pegasus Resort in the critical weekday evening peak period and the Sunday peak period. The average delay on the north approach to the SH1/ Pegasus Boulevard intersection is expected to increase by 15 seconds. However, when the Ravenswood development traffic is introduced the average delay increases by more than 200 seconds.

Intersection improvements such as extending the length of the short lanes on the State Highway, modifying the east approach to include two exit lanes or changing the lane configuration on the west approach to shared left turn/ through and dedicated right turn could alleviate the modelled delays and queues. However, given the uncertainty around the future receiving environment in the vicinity of the SH1/ Pegasus Boulevard roundabout the above traffic modelling results should be discussed with NZ Transport Agency.

The proposed Woodend Bypass could also significantly alter the traffic movements in the area.

As discussed in Section 6, walking and cycling links will be designed within the resort zone and connect to external links to support and encourage trips made by modes other than the private motor vehicles.

9. Strategic Planning Framework

There are a number of key strategic planning documents with which any land rezoning is expected to conform. An assessment of the proposed Pegasus Resort development against these documents is summarised below.

9.1 Regional Policy Environment

Canterbury Regional Policy Statement

The Canterbury Regional Policy Statement 2013 sets out significant resource management issues in the region and details ways to resolve those issues and achieve the integrated management of the natural and physical resources. Chapter 5 ('Land Use and Infrastructure') highlights a number of polices relating to the transportation networks:

Policy 5.3.7 - Strategic land transport network and arterial roads (Entire Region)

In relation to strategic land transport network and arterial roads, the avoidance of development which:

> *(1) adversely affects the safe efficient and effective functioning of this network and these roads, including the ability of this infrastructure to support freight and passenger transport services; and*
>
> *(2) in relation to the strategic land transport network and arterial roads, to avoid development which forecloses the opportunity for the development of this network and these roads to meet future strategic transport requirements.*

Policy 5.3.8 - Land use and transport integration (Wider Region)

Integrate land use and transport planning in a way:

(1) that promotes:

> *(a) the use of transport modes which have low adverse effects;*
>
> *(b) the safe, efficient and effective use of transport infrastructure, and reduces where appropriate the demand for transport;*

(2) that avoids or mitigates conflicts with incompatible activities; and

(3) where the adverse effects from the development, operation and expansion of the transport system:

> *(a) on significant natural and physical resources and cultural values are avoided, or where this is not practicable, remedied or mitigated; and*
>
> *(b) are otherwise appropriately controlled.*

Policy 5.3.9 - Regionally significant infrastructure (Wider Region)

In relation to regionally significant infrastructure (including transport hubs):

> *(1) avoid development which constrains the ability of this infrastructure to be developed and used without time or other operational constraints that may arise from adverse effects relating to reverse sensitivity or safety;*

Policy 6.3.2 Development form and urban design

Business development, residential development (including rural residential development) and the establishment of public space is to give effect to the principles of good urban design below, and those of the NZ Urban Design Protocol 2005, to the extent appropriate to the context:

(2) Integration – recognition of the need for well-integrated places, infrastructure, movement routes and networks, spaces, land uses and the natural and built environment. These elements should be overlaid to provide an appropriate form and pattern of use and development.

(3) Connectivity – the provision of efficient and safe high quality, barrier free, multimodal connections within a development, to surrounding areas, and to local facilities and services, with emphasis at a local level placed on walking, cycling and public transport as more sustainable forms of transport

Policy 6.3.4 Transport effectiveness–

Ensure that an efficient and effective transport network that supports business and residential recovery is restored, protected and enhanced so that it maintains and improves movement of people and goods around Greater Christchurch by:

(1) avoiding development that will overload strategic freight routes;

(2) providing patterns of development that optimise use of existing network capacity and ensuring that, where possible, new building projects support increased uptake of active and public transport, and provide opportunities for modal choice;

(3) providing opportunities for travel demand management;

(4) requiring integrated transport assessment for substantial developments; and

(5) improving road user safety.

The Resort will not require direct access to/from the strategic road network, nor will it compromise the use of infrastructure for freight or passenger transport. Pegasus Boulevard is currently classified as a Local Road and the Resort would not prevent it from being upgraded to a higher hierarchy in the future because access to each land use is from internal roads and not directly from Pegasus Boulevard.

The provision of some residential development within the Resort will ensure some recreational and hospitality trips are captured within the development reducing the demand on the external road network. The development is located within 2km from more than 3300 residential dwellings, which is an acceptable cycling distance for many people. The provision of shared paths with underpasses to provide safe crossing of higher speed roads will encourage walking and cycling as the population grows.

The Christchurch Northern Motorway and the Woodend Bypass are two significant infrastructure projects currently scheduled for the region. Neither of these projects will be adversely affected by the proposed resort development. The Bypass is expected to be connected just south of the SH1/ Pegasus Roundabout therefore will improve connectivity to the site.

The traffic effects assessment shows that the traffic generated by the proposed plan change does not adversely affect the effective or safe functioning of the strategic road network in the immediate area, and the resultant levels of service do not preclude the arterial network from being developed further in future. The development is not expected to have an adverse effect on the Woodend Bypass project.

The site accommodates non-car modes of travel and the provision made for walking and cycling journeys is considered to be appropriate for the nature of the proposed zoning. Walking and cycling links will be provided to connect the Resort to residential development towards the east and west, and the likely number of walking and cycling trips is unlikely to result in the need for additional infrastructure on the frontage road (Pegasus Boulevard).

The safety records in the area do not indicate that the plan change request would result in any adverse effects arising on the adjacent network, and the infrastructure within the site will be designed to meet current WDC and NZ standards.

Canterbury Regional Land Transport Plan 2015 – 2025

The Canterbury Regional Land Transport Plan 2015 – 2025 describes a list of primary objectives to achieve the vision of “Canterbury has an accessible, affordable, integrated, safe, resilient and sustainable transport system”.

These primary objectives are;

- Progressively reduce transport-related fatalities and serious injuries
- Increase the attractiveness of public transport, walking and cycling, so there is greater use of these modes:
  - For public transport the focus is on timeliness, convenience, affordability, efficiency, connectedness, and sustainability
  - For walking and cycling the focus is on safety, amenity, convenience, connectivity and being able to take a direct route
- Improve connections between different transport modes
- Increased capability for appropriate roads and bridges to carry heavy vehicles
- All roads comply with One Network Road Classification performance measures
- Improve journey time reliability on key corridors, with a focus on freight, public transport and tourism
- Improve access to freight hubs
- Resilience routes are in place for strategic routes that are most at risk of disruption
- Reduce the number and duration of road closures
- Increased uptake of energy efficient and environmentally sustainable vehicles
- Increased transport and land use integration
- Reduced air and water pollution
- Improved storm water management

The Pegasus Resort will facilitate a development that will not give rise to adverse effects on the strategic transport network and does not require any new roading links. The plan change area is located on a key movement corridor that provides public transport services and will therefore provide for a choice of travel modes. ECAN is proposing changes to the Christchurch bus network which is expected to increase bus services past the site to further improve public transport accessibility.

The proposal does not deviate from the ONRC classification or performance measures.

Canterbury Regional Public Transport Plan 2018 – 2028

The Canterbury Regional Public Transport Plan 2018-2028 sets out Environment Canterbury's objectives and policies for delivering public transport in Canterbury. One of the key objectives of the plan is to grow and expand the Christchurch Public Transport network whilst growing patronage and providing a quality customer experience.

The proposed changes to the Waimakariri services will assist in improving public transport accessibility between local suburbs and the Resort.

9.2 Local Policy Environment

Waimakariri District Plan

Objectives and policies

There are three policies within the District Plan which are particularly relevant to consideration of a plan change request:

Policy 11.1.1.5 –

New developments and activities in relation to their traffic generation characteristics should:

A) Locate on or establish primary access to an appropriate level of road within the road hierarchy

B) Not have vehicular access to an inappropriate level of road within the hierarchy

C) Provide cycleways along arterial, strategic and collector roads

Policy 11.1.1.6 –

Every site should have access that provides safe entry and exit for vehicles to and from the site to a road without compromising the safety or efficiency of the road or road network. Where a site has two or more road frontages access should be from the lowest road classification within the road hierarchy.

Policy 11.1.1.7 –

Vehicle parking, loading and manoeuvring provided on-site, or within shared parking facilities, shall ensure that:

a) safe and efficient access is provided;

b) use of off-site parking facilities will not adversely affect pedestrian, cycle or public transportation, public safety, and the safe, efficient operation of the road network; and

c) for shared parking, a legally binding arrangement is established that protects ongoing access and use.

The proposal aims to provide a development that encourages recreation and tourism which is much desired in the Waimakariri district. The Resort proposal is in line with the above Polices by providing access from the existing road network using a typical road hierarchy where access is provided by the lowest classification. Vehicle access to the Resort will be via well designed roundabout intersections on a key movement corridor (Pegasus Boulevard). No new vehicle crossings that would compromise the functioning of Pegasus Boulevard are proposed.

All onsite parking, loading and turning for vehicles will be accommodated internally with appropriate pedestrian and cycle connections throughout the Resort.

District Plan Rules

No departures from the operative traffic and transportation rules within the District Plan and no new transportation-related Objectives, Policies or Rules are proposed. However, it is also envisaged that there may be occasional departures from these to achieve the optimum urban design outcome. If there are any deviations from this, these will be identified when land use and/or subdivision consents are sought, and the acceptability of these non-compliances determined at that time.

It is anticipated that at resource consent stage of any development, the transport related District Plan Rules set out in Chapter 30 Utilities and Traffic Management and the Waimakariri District Council Engineering Code of Practice Part 8 Roading will form an appropriate basis for the design and layout of the internal site.

10. Conclusion

This Integrated Transport Assessment has identified, evaluated and assessed the various transport and access elements of a plan change request for land located at the Pegasus Golf Course to provide a resort with multiple hospitality and recreational activity. Overall, the development that would be facilitated by the plan change will result in an increased level of activity compared to the current zoning.

The current level of service of the surrounding roading network have been assessed, taking into account traffic growth expected at Pegasus Town and Ravenswood. Intersection traffic modelling has been undertaken to assess the operation of nearby intersections for the evening peak hour and Sunday afternoon peak hour under two future development scenarios. The results of the analysis demonstrate that the receiving transport network has some capacity to accommodate the traffic generated from the resort. However, when a fully developed Ravenswood subdivision is introduced, some relatively minor design and traffic management changes will be required to the SH1/Pegasus Boulevard roundabout to improve traffic operations with the forecast higher traffic flows.

Given the uncertainty around the future receiving environment in the vicinity of the SH1/ Pegasus Boulevard roundabout in particular the layout and timing of the proposed Woodend Bypass, discussions should be held with the NZ Transport Agency.

The current crash history along Pegasus Boulevard does not highlight any underlying safety issues. Accordingly, it is considered unlikely that the proposed development related traffic will compromise road safety within the vicinity. However, with the growth projected for nearby subdivisions an appropriate pedestrian/ cycle crossing facility may be required to ensure users can cross the State Highway safely.

The proposed rezoning has been assessed against the relevant transport planning framework contained in regional and local strategies and policies, and overall, it is considered that the proposal is consistent with the transport-related objectives and policies of those documents.

Appendix A
Crash History

NZ TRANSPORT AGENCY WAKA KOTAHI CAS

Untitled query

Saved sites

Pegasus

Crash year

2015 — 2019

Plain English report

21 results from your query.

Showing 20 100 results at once.

1-20 of 21

Crash road	Distance	Direction	Reference station	Route position	Side road	Easting	Northing	Longitude	Latitude	ID	Date	Day of week	Time	Description of events	Crash factors	Surface condition	Natural light	Weather	Junction	Control	Crash count fatal	Crash count severe	Crash count minor	Social cost $(m)
01S-0311		I			PEGASUS BOULEVARD	1573557	5204743	172.673935	-43.309677	201976416	02/08/2019	Fri	11:20	Car/Wagon1 SDB on Old main north rd overtaking SUV2	–	Dry	Bright sun	Fine	Roundabout	Give way	0	0	0	0.02
01S-0311		I			PEGASUS BOULEVARD	1573553	5204742	172.673889	-43.309689	201899991	21/11/2018	Wed	07:14	Car/Wagon1 SDB on SH 1 lost control turning right; went off road to left	–	Dry	Bright sun	Fine	Roundabout	Give way	0	0	0	0.02
INFINITY DR		I			PEGASUS BOULEVARD	1574714	5204049	172.688171	-43.315971	201977948	15/08/2019	Thu	12:50	Car/Wagon1 EDB on PEGASUS BOULEVARD, PEGASUS, WAIMAKARIRI hit Car/Wagon2 crossing at right angle from right	–	Dry	Bright sun	Fine	Roundabout	Give way	0	0	0	0.02
MAIN NORTH ROAD		I			BOB ROBERTSON DRIVE	1573590	5204752	172.674347	-43.309593	201981144	20/09/2019	Fri	20:00	Car/Wagon1 SDB on BOB ROBERTSON DRIVE lost control turning right; went off road to left, Car/Wagon1 hit light pole	–	Dry	Dark	Fine	Roundabout	Give way	0	0	0	0.04
MAIN NORTH ROAD		I			BOB ROBERTSON DRIVE	1573563	5204783	172.674020	-43.309320	201970100	07/06/2019	Fri	12:58	Van1 NDB on MAIN NORTH ROAD changing lanes to left hit Car/Wagon2 , Car/Wagon2 hit kerb	–	Dry	Bright sun	Fine	Roundabout	Give way	0	0	0	0.02
MAIN NORTH ROAD		I			PEGASUS BOULEVARD	1573575	5204739	172.674160	-43.309711	201985050	11/11/2019	Mon	07:55	Car/Wagon1 SDB on MAIN NORTH ROAD, WOODEND, WAIMAKARIRI lost control turning right; went off road to left, Car/Wagon1 hit light pole	–	Wet	Overcast	Light rain	Roundabout	Give way	0	0	0	0.02
MAIN NORTH ROAD		I			PEGASUS BOULEVARD	1573563	5204741	172.674011	-43.309700	201984989	10/11/2019	Sun	19:45	Car/Wagon1 SDB on MAIN NORTH ROAD, WOODEND, WAIMAKARIRI lost control turning right; went off road to left, Car/Wagon1 hit fence	–	Wet	Twilight	Light rain	Roundabout	Give way	0	0	0	0.02
MAIN NORTH ROAD		I			PEGASUS BOULEVARD	1573587	5204786	172.674320	-43.309288	201967592	15/05/2019	Wed	12:10	Car/Wagon1 SDB on MAIN NORTH ROAD hit rear end of SUV2 stop/slow for cross traffic	–	Dry	Overcast	Fine	Roundabout	Give way	0	0	0	0.04
MAIN NORTH ROAD		I			PEGASUS BOULEVARD	1573578	5204740	172.674204	-43.309704	201969316	01/06/2019	Sat	16:00	Car/Wagon1 SDB on MAIN NORTH ROAD lost control turning right; went off road to left, Car/Wagon1 hit guard rail	–	Wet	Overcast	Heavy rain	Roundabout	Give way	0	0	0	0.04
PEGASUS BLVD		I			MAIN NORTH ROAD	1573597	5204742	172.674438	-43.309689	201975954	30/07/2019	Tue	06:45	Car/Wagon1 WDB on Pegasus blvd hit Cyclist2 (Age 58) crossing at right angle from right	–	Wet	Dark	Light rain	Roundabout	Give way	0	0	0	0.02
PEGASUS BOULEVARD	200m	W			INFINITY DRIVE	1574502	5204093	172.685562	-43.315567	201517243	17/10/2015	Sat	21:30	Car/Wagon1 EDB on PEGASUS BOULEVARD lost control; went off road to left, Car/Wagon1 hit non specific pole	–	Dry	Dark	Fine	Nil (Default)	Unknown	0	0	1	0.11

Crash road	Distance	Direction	Reference station	Route position	Side road	Easting	Northing	Longitude	Latitude	ID	Date	Day of week	Time	Description of events	Crash factors	Surface condition	Natural light	Weather	Junction	Control	Crash count fatal	Crash count severe	Crash count minor	Social cost $(m)
PEGASUS BOULEVARD	180m	W			MAPLEHAM DRIVE	1573779	5204652	172.676666	-43.310509	201645405	04/07/2016	Mon	12:40	Van1 EDB on Pegasus Boulevard lost control; went off road to left, Van1 hit non specific fence, non specific tree	–	Dry	Bright sun	Fine	Nil (Default)	Unknown	0	0	0	0.02
PEGASUS BOULEVARD	170m	S			MAPLEHAM DRIVE	1574073	5204472	172.680283	-43.312141	201653658	11/11/2016	Fri	16:30	Car/Wagon1 SDB on Pegasus beulevard lost control turning right, Car/Wagon1 hit non specific tree	–	Dry	Overcast	Light rain	Nil (Default)	Unknown	0	0	0	0.02
PEGASUS BOULEVARD		I			SH 1S	1573582	5204771	172.674240	-43.309429	201653132	20/11/2016	Sun	13:13	load or trailer from Truck1 SDB on State Highway One hit VEHB, Truck1 hit non specific traffic island	–	Dry	Bright sun	Fine	Roundabout	Give way	0	0	0	0.02
PEGASUS BOULEVARD		I			SH 1S	1573575	5204754	172.674164	-43.309582	201714057	21/05/2017	Sun	16:12	Car/Wagon1 SDB on Main North Rd, Pegasus lost control turning right, Car/Wagon1 hit non specific cliff	–	Dry	Bright sun	Fine	Roundabout	Give way	0	0	2	0.11
SH 1S		I			PEGASUS BOULENARD	1573582	5204757	172.674240	-43.309555	201631266	22/01/2016	Fri	19:02	Car/Wagon1 WDB on SH 1S hit Car/Wagon2 crossing at right angle from right	–	Dry	Bright sun	Fine	Roundabout	Give way	0	0	0	0.02
SH 1S		I			PEGASUS BOULEVARD	1573585	5204764	172.674286	-43.309494	201731909	09/02/2017	Thu	09:50	Truck1 NDB on Main North Road changing lanes/overtaking to right hit Car/Wagon2	–	Dry	Bright sun	Fine	Roundabout	Give way	0	0	0	0.02
SH 1S		I			PEGASUS BOULEVARD	1573582	5204771	172.674240	-43.309429	201757187	26/12/2017	Tue	11:50	Car/Wagon1 NDB on Sh1 hit rear end of Truck2 stopped/moving slowly	–	Wet	Overcast	Light rain	Roundabout	Give way	0	0	0	0.02
SH 1S		I			PEGASUS BOULEVARD	1573585	5204764	172.674286	-43.309494	201834114	10/02/2018	Sat	11:50	SUV1 NDB on Main north road lost control turning right, SUV1 hit non specific traffic island	–	Dry	Bright sun	Fine	Roundabout	Nil	0	0	0	0.02
SH 1S		I			PEGASUS BOULEVARD	1573585	5204764	172.674286	-43.309494	201650106	15/10/2016	Sat	01:00	Car/Wagon1 SDB on Main North Road lost control; went off road to left, Car/Wagon1 hit non specific fence	–	Wet	Dark	Fine	Roundabout	Give way	0	0	0	0.02

1-20 of 21

Appendix B
Bus Routes

Rangiora
Waikuku
Pegasus
Woodend
Southbrook
Silverstream
Kaiapoi
Kainga
River Rd
West Belt
Kingsbury Ave
Ashley St
Blackett St
High St
Kippenberger Ave
Rangiora Woodend Rd
Main North Rd
Pegasus Blvd
Woodend Rd
White St
Bush St
South Belt Rd
Southbrook Rd
Lineside Rd
Lees Rd
Sovereign Blvd
Silverstream Blvd
Fuller St
Williams St
Christchurch Northern Motorway
Waikuku Beach Rd
Tuahiwi Road
Coldstream Road
Golf Links Road
Marchmont Road
Smarts Road
Gressons Road
Wards Road
Preeces Rd
Karapoi Pa Road
Harris Rd
Boys Road
Spark Ln
Northbrook
Waikohuru Road
Okahau Road
Chinnerys Road
Hewitts Road
Bowyer Rd
Parsonage Rd
Eders Rd
Stokes Rd
Macdonalds
Leggetts
Allin Dr
Bridge
Broadway Kuwi
Park Toe
Rotten Beach
Lake Pegasus
Solander Rd
Pegasus Main St
Infinity Dr
Hodgkinson St
Kawari Dr
Tupuna
Lakeside
The Esplanade
Te Kohanga Dr
Arahura Rd
Tutaipatu Ave
Hakatere
Tahuna
Blackadder
Te Haunui
Mara-kai
Tiritiri
Moana
Jove
Te Hununui
Atkinsons Ln
Wakefield Ave
Lees Rd
Barkers Rd
Belvale Dr
Brookbank Dr
Monarch
Clifford Rd
Dunns
Kain
Rinaldi Grove
Monks
Batten Ave
Reid Memorial
Featherstone Ave
Ferry Road
Beach Road
Tunoe
Toa
Meadow
Jones St
Beswick
Cass
Jollie
Gray
Fieldwick Dr
Kirk
Moore St
Quay St
Bowler
Charters
Courtenay Dr
Stone
Ohoka Road
Mansfield
Penman
Willock
Isaac Wilson
Robert Coup Rd
William Coup Rd
Glengarry
Island
Neeves Road
Orchard Pl
Tram Road
Greigs Drain Rd
Watts Rd
Empire
Kainga Road
Doubledays
Courtenay Rd
Stim
Waimakariri River
Styx River
Barkers Road (Rangiora)
Barkers Road
Mill Road
Kaiapoi River
Adderley Island
Cam River
Old Cam River
Camside Road
Lower Cam Rd
Cridland St
Walker St
Sirns Coups
Ranfurly St
Dale St
Allison Cres
Revells Road
Mulcocks Road
Skewbridge Road
Threlkelds Road
Kirkwyn Ln
Keeffy
Wilson
Birchdale
Christmas Road
Jackisons Road
Raddens Road
Jeffs Road
Gardiners Rd
Moody's Road
Glies Road
Edmunds Road
Woods Road
Elders Road
Burgesses Road
Eyre Road
Mabers Road
Heywards Road
Taylors Rd
Madleys Road
Baynons Road
Dickeys Road
Oukaikiri Creek
Spencerville Road
Farells Rd
Styx River
Barkersfield
Exley
John
Harbour Rd
Nirvana Dr
Blackridge
Anfield Road
The Lagoon
Beacon St
Dartford
Pine Ave
Riverlea Estate
Cawood
Savage
Kainga Road
Empire
Kainga
Styx River
Todds Road
Easterbrook Road
Flaxton Rd
Youngs Rd
Ferryside Rd
Power Rd
Cox Road
Church Bush Rd
Bramleys Road
Drain Road
Island
Tuahiwi
Te Poupatuki Road
Topito Road
Greens Road
Fullers Road
Woodend
Turiwhata Road
Marsh
Ellis
Dunlops
Railway Station
Torlesse
Denchs
Highfield
Buckleys
Coronation
Townsend Road
Fernside Road
Pentecost Rd
Rowses
Green
Charles
Kenya
Percival
Newnham St
Parkhouse
Union
Rata
Geddis
Aspen
Acacia Ave
Johns Rd
Beech
Queen
King
George St
Church St
Palmer St
Victoria St
Ivory
Cone
Reeves
Kowhai
Kotare St
Papaiwai
Oakgrove Dr
Palmview Dr
Coter
Belt
Ashgrove
Kirkley St
White St
Ayers St
Seddon
Durham St
Good St
King St
Edward St
Wales St
Ashley St
Golding Ave
Mayberry
Ensleigh Dr
Envirton
Belfarat
Kensington Ave
Arlington
Belmont Ave
Oakwood
Elm Dr
Cedar
Ashview Drive
Brick Kiln Road
Milton Ave
Cones Rd
Regent
Melford
Drive
Ashgrove
Belt
Kirkley St
Church St
Ayers St
Durham St
Good St
Edward St
Wales St
Ashley St
Golding Ave
Mayberry
Ensleigh Dr
Envirton
Belfarat
Kensington Ave
Arlington
Belmont Ave
Oakwood
Elm Dr
Cedar
Ashview Drive
Brick Kiln Road
Milton Ave
Cones Rd
Pegasus
Lake Pegasus
Pegasus Main St
Solander Rd
Infinity Dr
Hodgkinson St
Kawari Dr
Tupuna
Lakeside
The Esplanade
Te Kohanga Dr
Arahura Rd
Tutaipatu Ave
Hakatere
Tahuna
Blackadder
Pegasus Blvd
Te Haunui
Mara-kai
Tiritiri
Moana
Jove
Te Hununui
Atkinsons Ln
Wakefield Ave
Lees Rd
Barkers Rd
Belvale Dr
Brookbank Dr
Monarch
Clifford Rd
Dunns
Kain
Rinaldi Grove
Monks
Batten Ave
Reid Memorial
Featherstone Ave
Ferry Road
Beach Road
Tunoe
Toa
Meadow
Jones St
Beswick
Cass
Jollie
Gray
Fieldwick Dr
Kirk
Moore St
Quay St
Bowler
Charters
Courtenay Dr
Stone
Ohoka Road
Mansfield
Penman
Willock
Isaac Wilson
Robert Coup Rd
William Coup Rd
Glengarry
Island
Neeves Road
Orchard Pl
Tram Road
Greigs Drain Rd
Watts Rd
Empire
Kainga Road
Doubledays
Courtenay Rd
Stim
Waimakariri River
Styx River
Barkers Road (Rangiora)
Barkers Road
Mill Road
Kaiapoi River
Adderley Island
Cam River
Old Cam River
Camside Road
Lower Cam Rd
Cridland St
Walker St
Sirns Coups
Ranfurly St
Dale St
Allison Cres
Revells Road
Mulcocks Road
Skewbridge Road
Threlkelds Road
Kirkwyn Ln
Keeffy
Wilson
Birchdale
Christmas Road
Jackisons Road
Raddens Road
Jeffs Road
Gardiners Rd
Moody's Road
Glies Road
Edmunds Road
Woods Road
Elders Road
Burgesses Road
Eyre Road
Mabers Road
Heywards Road
Taylors Rd
Madleys Road
Baynons Road
Dickeys Road
Oukaikiri Creek
Spencerville Road
Farells Rd
Styx River
Barkersfield
Exley
John
Harbour Rd
Nirvana Dr
Blackridge
Anfield Road
The Lagoon
Beacon St
Dartford
Pine Ave
Riverlea Estate
Cawood
Savage
Kainga Road
Empire
Kainga
Styx River
Todds Road
Easterbrook Road
Flaxton Rd
Youngs Rd
Ferryside Rd
Power Rd
Cox Road
Church Bush Rd
Bramleys Road
Drain Road
Island
Tuahiwi
Te Poupatuki Road
Topito Road
Greens Road
Fullers Road
Woodend
Turiwhata Road
Marsh
Ellis
Dunlops
Railway Station
Torlesse
Denchs
Highfield
Buckleys
Coronation
Townsend Road
Fernside Road
Pentecost Rd
Rowses
Green
Charles
Kenya
Percival
Newnham St
Parkhouse
Union
Rata
Geddis
Aspen
Acacia Ave
Johns Rd
Beech
Queen
King
George St
Church St
Palmer St
Victoria St
Ivory
Cone
Reeves
Kowhai
Kotare St
Papaiwai
Oakgrove Dr
Palmview Dr
Coter
Belt
Ashgrove
Kirkley St
White St
Ayers St
Seddon
Durham St
Good St
King

Appendix C
SIDRA Output

MOVEMENT SUMMARY

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Sunday Future Base]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	11	2.0	0.458	4.9	LOS A	2.4	16.7	0.13	0.44	0.13	53.8
22	T1	678	2.0	0.458	4.8	LOS A	2.4	16.7	0.13	0.44	0.13	63.2
23	R2	18	2.0	0.458	10.1	LOS B	2.4	16.7	0.13	0.44	0.13	42.9
Approach		706	2.0	0.458	5.0	LOS A	2.4	16.7	0.13	0.44	0.13	62.3
NorthEast: GC Entrance												
24	L2	25	2.0	0.023	2.5	LOS A	0.1	1.0	0.59	0.37	0.59	39.6
25	T1	11	2.0	0.026	3.0	LOS A	0.1	1.1	0.61	0.49	0.61	35.9
26	R2	13	2.0	0.026	5.8	LOS A	0.1	1.1	0.61	0.49	0.61	38.9
Approach		48	2.0	0.026	3.5	LOS A	0.1	1.1	0.60	0.43	0.60	38.5
NorthWest: Pegasus Blvd												
27	L2	16	2.0	0.345	4.9	LOS A	1.4	9.9	0.11	0.45	0.11	40.7
28	T1	494	2.0	0.345	4.8	LOS A	1.4	9.9	0.11	0.45	0.11	63.3
29	R2	11	2.0	0.345	10.1	LOS B	1.4	9.9	0.11	0.45	0.11	55.9
Approach		520	2.0	0.345	4.9	LOS A	1.4	9.9	0.11	0.45	0.11	62.1
SouthWest: Te Haunui Ln												
30	L2	11	2.0	0.032	5.0	LOS A	0.1	1.0	0.50	0.61	0.50	50.7
31	T1	11	2.0	0.032	5.8	LOS A	0.1	1.0	0.50	0.61	0.50	35.3
32	R2	11	2.0	0.032	9.6	LOS A	0.1	1.0	0.50	0.61	0.50	51.7
Approach		32	2.0	0.032	6.8	LOS A	0.1	1.0	0.50	0.61	0.50	44.5
All Vehicles		1306	2.0	0.458	4.9	LOS A	2.4	16.7	0.15	0.45	0.15	60.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Wk Full Dev with Ravenswood]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	3	2.0	0.489	5.0	LOS A	3.1	21.8	0.25	0.46	0.25	53.3
22	T1	668	2.0	0.489	5.0	LOS A	3.1	21.8	0.25	0.46	0.25	62.4
23	R2	28	2.0	0.489	10.3	LOS B	3.1	21.8	0.25	0.46	0.25	42.6
Approach		700	2.0	0.489	5.2	LOS A	3.1	21.8	0.25	0.46	0.25	61.2
NorthEast: GC Entrance												
24	L2	29	2.0	0.070	12.9	LOS B	0.5	3.4	0.92	0.78	0.92	35.6
25	T1	11	2.0	0.103	10.1	LOS B	0.8	5.9	0.95	0.79	0.95	33.4
26	R2	52	2.0	0.103	12.9	LOS B	0.8	5.9	0.95	0.79	0.95	36.0
Approach		92	2.0	0.103	12.6	LOS B	0.8	5.9	0.94	0.79	0.94	35.5
NorthWest: Pegasus Blvd												
27	L2	48	2.0	0.755	5.1	LOS A	6.6	47.1	0.26	0.44	0.26	40.4
28	T1	1109	2.0	0.755	5.0	LOS A	6.6	47.1	0.26	0.44	0.26	62.5
29	R2	11	2.0	0.755	10.3	LOS B	6.6	47.1	0.26	0.44	0.26	55.2
Approach		1168	2.0	0.755	5.1	LOS A	6.6	47.1	0.26	0.44	0.26	61.0
SouthWest: Te Haunui Ln												
30	L2	11	2.0	0.035	5.3	LOS A	0.2	1.1	0.55	0.62	0.55	50.5
31	T1	11	2.0	0.035	6.1	LOS A	0.2	1.1	0.55	0.62	0.55	35.2
32	R2	11	2.0	0.035	9.9	LOS A	0.2	1.1	0.55	0.62	0.55	51.5
Approach		32	2.0	0.035	7.1	LOS A	0.2	1.1	0.55	0.62	0.55	44.4
All Vehicles		1992	2.0	0.755	5.5	LOS A	6.6	47.1	0.29	0.47	0.29	58.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Sunday Full Dev with Ravenswood]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	11	2.0	0.653	5.0	LOS A	5.2	37.0	0.29	0.46	0.29	53.2
22	T1	936	2.0	0.653	5.0	LOS A	5.2	37.0	0.29	0.46	0.29	62.2
23	R2	23	2.0	0.653	10.3	LOS B	5.2	37.0	0.29	0.46	0.29	42.5
Approach		969	2.0	0.653	5.1	LOS A	5.2	37.0	0.29	0.46	0.29	61.5
NorthEast: GC Entrance												
24	L2	18	2.0	0.030	6.9	LOS A	0.2	1.3	0.77	0.59	0.77	37.8
25	T1	11	2.0	0.061	5.0	LOS A	0.4	3.0	0.78	0.65	0.78	35.1
26	R2	42	2.0	0.061	7.8	LOS A	0.4	3.0	0.78	0.65	0.78	37.9
Approach		71	2.0	0.061	7.1	LOS A	0.4	3.0	0.77	0.63	0.77	37.4
NorthWest: Pegasus Blvd												
27	L2	34	2.0	0.554	4.9	LOS A	3.2	22.6	0.17	0.45	0.17	40.6
28	T1	804	2.0	0.554	4.9	LOS A	3.2	22.6	0.17	0.45	0.17	63.0
29	R2	11	2.0	0.554	10.2	LOS B	3.2	22.6	0.17	0.45	0.17	55.7
Approach		848	2.0	0.554	4.9	LOS A	3.2	22.6	0.17	0.45	0.17	61.6
SouthWest: Te Haunui Ln												
30	L2	11	2.0	0.045	7.8	LOS A	0.2	1.8	0.72	0.71	0.72	49.0
31	T1	11	2.0	0.045	8.6	LOS A	0.2	1.8	0.72	0.71	0.72	34.5
32	R2	11	2.0	0.045	12.4	LOS B	0.2	1.8	0.72	0.71	0.72	49.9
Approach		32	2.0	0.045	9.6	LOS A	0.2	1.8	0.72	0.71	0.72	43.2
All Vehicles		1920	2.0	0.653	5.2	LOS A	5.2	37.0	0.26	0.46	0.26	59.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [SH1 / Pegasus Blvd Rbt - Wk Current]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	176	2.0	0.179	6.5	LOS A	1.0	6.9	0.62	0.70	0.62	60.5
22	T1	18	2.0	0.092	7.3	LOS A	0.4	3.1	0.62	0.77	0.62	58.1
23	R2	43	2.0	0.092	14.1	LOS B	0.4	3.1	0.62	0.77	0.62	57.8
Approach		237	2.0	0.179	7.9	LOS A	1.0	6.9	0.62	0.72	0.62	59.8
NorthEast: SH1												
24	L2	29	2.0	0.398	6.9	LOS A	2.7	19.8	0.65	0.64	0.65	59.8
25	T1	520	5.0	0.398	6.8	LOS A	2.7	19.8	0.64	0.65	0.64	61.7
26	R2	22	2.0	0.197	14.0	LOS B	1.1	7.9	0.60	0.68	0.60	60.9
Approach		572	4.7	0.398	7.1	LOS A	2.7	19.8	0.64	0.65	0.64	61.5
NorthWest: Bob Robertson Dr												
27	L2	36	2.0	0.054	8.1	LOS A	0.2	1.7	0.63	0.73	0.63	59.5
28	T1	23	2.0	0.078	6.6	LOS A	0.4	2.6	0.61	0.75	0.61	58.8
29	R2	46	2.0	0.078	13.4	LOS B	0.4	2.6	0.61	0.75	0.61	58.5
Approach		105	2.0	0.078	10.1	LOS B	0.4	2.6	0.62	0.74	0.62	58.9
SouthWest: SH1												
30	L2	117	2.0	0.325	4.7	LOS A	2.3	16.6	0.30	0.42	0.30	62.0
31	T1	431	5.0	0.325	4.4	LOS A	2.3	16.6	0.30	0.45	0.30	63.3
32	R2	360	2.0	0.325	11.2	LOS B	2.3	16.1	0.31	0.60	0.31	58.9
Approach		907	3.4	0.325	7.2	LOS A	2.3	16.6	0.30	0.51	0.30	61.3
All Vehicles		1821	3.6	0.398	7.4	LOS A	2.7	19.8	0.47	0.60	0.47	61.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [SH1 / Pegasus Blvd Rbt - Wk FS1]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	479	2.0	0.564	9.0	LOS A	4.6	32.9	0.85	0.96	1.01	58.7
22	T1	48	2.0	0.292	8.4	LOS A	1.6	11.3	0.75	0.90	0.75	57.2
23	R2	118	2.0	0.292	15.2	LOS B	1.6	11.3	0.75	0.90	0.75	56.9
Approach		645	2.0	0.564	10.1	LOS B	4.6	32.9	0.83	0.95	0.94	58.2
NorthEast: SH1												
24	L2	67	2.0	0.901	44.1	LOS D	20.2	147.3	1.00	1.59	2.67	38.0
25	T1	634	5.0	0.901	37.2	LOS D	20.2	147.3	0.98	1.45	2.29	41.6
26	R2	27	2.0	0.445	23.1	LOS C	3.3	23.9	0.93	1.02	1.10	53.3
Approach		728	4.6	0.901	37.3	LOS D	20.2	147.3	0.98	1.45	2.28	41.6
NorthWest: Bob Robertson Dr												
27	L2	43	2.0	0.115	12.2	LOS B	0.6	4.1	0.82	0.91	0.82	55.8
28	T1	53	2.0	0.196	9.6	LOS A	1.1	8.0	0.85	0.94	0.85	57.4
29	R2	57	2.0	0.196	16.3	LOS B	1.1	8.0	0.85	0.94	0.85	57.0
Approach		153	2.0	0.196	12.8	LOS B	1.1	8.0	0.84	0.93	0.84	56.8
SouthWest: SH1												
30	L2	142	2.0	0.588	6.0	LOS A	5.4	39.3	0.64	0.57	0.64	59.9
31	T1	525	5.0	0.588	5.8	LOS A	5.4	39.3	0.64	0.57	0.64	62.0
32	R2	824	2.0	0.625	12.2	LOS B	6.3	44.6	0.65	0.67	0.65	56.5
Approach		1492	3.1	0.625	9.3	LOS A	6.3	44.6	0.65	0.62	0.65	58.6
All Vehicles		3018	3.2	0.901	16.4	LOS B	20.2	147.3	0.78	0.91	1.11	53.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [SH1 / Pegasus Blvd Rbt - Sun Current]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	323	2.0	0.324	6.7	LOS A	1.9	13.4	0.65	0.75	0.65	60.4
22	T1	33	2.0	0.144	7.8	LOS A	0.7	4.9	0.63	0.80	0.63	58.2
23	R2	57	2.0	0.144	14.5	LOS B	0.7	4.9	0.63	0.80	0.63	57.9
Approach		413	2.0	0.324	7.8	LOS A	1.9	13.4	0.65	0.76	0.65	59.8
NorthEast: SH1												
24	L2	53	2.0	0.377	6.4	LOS A	2.5	18.4	0.60	0.61	0.60	60.1
25	T1	486	5.0	0.377	6.4	LOS A	2.5	18.4	0.59	0.62	0.59	61.9
26	R2	28	2.0	0.186	13.5	LOS B	1.0	7.4	0.56	0.65	0.56	60.9
Approach		567	4.6	0.377	6.7	LOS A	2.5	18.4	0.59	0.62	0.59	61.7
NorthWest: Bob Robertson Dr												
27	L2	51	2.0	0.081	8.4	LOS A	0.4	2.5	0.65	0.77	0.65	59.2
28	T1	44	2.0	0.125	6.8	LOS A	0.6	4.3	0.64	0.77	0.64	59.0
29	R2	64	2.0	0.125	13.5	LOS B	0.6	4.3	0.64	0.77	0.64	58.6
Approach		159	2.0	0.125	10.0	LOS B	0.6	4.3	0.64	0.77	0.64	58.9
SouthWest: SH1												
30	L2	48	2.0	0.328	4.9	LOS A	2.3	16.7	0.36	0.44	0.36	61.6
31	T1	564	5.0	0.328	4.6	LOS A	2.3	16.7	0.36	0.48	0.36	62.7
32	R2	261	2.0	0.328	11.4	LOS B	2.3	16.3	0.37	0.59	0.37	59.9
Approach		874	3.9	0.328	6.7	LOS A	2.3	16.7	0.37	0.51	0.37	61.8
All Vehicles		2013	3.6	0.377	7.2	LOS A	2.5	18.4	0.51	0.61	0.51	61.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [SH1 / Pegasus Blvd Rbt - Sun Future Base]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	549	2.0	0.617	9.5	LOS A	5.4	38.2	0.85	0.99	1.06	58.2
22	T1	56	2.0	0.278	8.8	LOS A	1.4	10.1	0.73	0.90	0.73	57.4
23	R2	97	2.0	0.278	15.5	LOS B	1.4	10.1	0.73	0.90	0.73	57.1
Approach		702	2.0	0.617	10.3	LOS B	5.4	38.2	0.83	0.97	0.99	58.0
NorthEast: SH1												
24	L2	89	2.0	0.587	10.4	LOS B	5.8	42.1	0.86	0.91	1.04	57.8
25	T1	593	5.0	0.587	9.9	LOS A	5.8	42.1	0.83	0.88	0.97	59.6
26	R2	35	2.0	0.290	15.8	LOS B	1.7	12.6	0.74	0.81	0.74	59.2
Approach		717	4.5	0.587	10.3	LOS B	5.8	42.1	0.83	0.88	0.97	59.4
NorthWest: Bob Robertson Dr												
27	L2	62	2.0	0.132	10.1	LOS B	0.6	4.3	0.75	0.87	0.75	57.6
28	T1	75	2.0	0.219	8.0	LOS A	1.2	8.2	0.77	0.86	0.77	58.5
29	R2	78	2.0	0.219	14.7	LOS B	1.2	8.2	0.77	0.86	0.77	58.1
Approach		215	2.0	0.219	11.0	LOS B	1.2	8.2	0.76	0.86	0.76	58.1
SouthWest: SH1												
30	L2	59	2.0	0.481	5.5	LOS A	4.0	29.0	0.54	0.51	0.54	60.5
31	T1	687	5.0	0.481	5.2	LOS A	4.0	29.0	0.54	0.53	0.54	61.8
32	R2	444	2.0	0.481	12.1	LOS B	3.9	27.9	0.55	0.65	0.55	58.3
Approach		1191	3.7	0.481	7.8	LOS A	4.0	29.0	0.54	0.58	0.54	60.4
All Vehicles		2824	3.4	0.617	9.3	LOS A	5.8	42.1	0.70	0.77	0.78	59.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 8.0 | Copyright © 2000-2019 Akcelik and Associates Pty Ltd | sidrasolutions.com

MOVEMENT SUMMARY

Site: 101 [SH1 / Pegasus Blvd Rbt - Wk FS2]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	518	2.0	0.606	9.1	LOS A	5.0	35.8	0.86	0.99	1.04	58.6
22	T1	53	2.0	0.315	8.3	LOS A	1.7	11.9	0.75	0.90	0.75	57.3
23	R2	127	2.0	0.315	15.0	LOS B	1.7	11.9	0.75	0.90	0.75	57.0
Approach		698	2.0	0.606	10.1	LOS B	5.0	35.8	0.83	0.97	0.97	58.2
NorthEast: SH1												
24	L2	72	2.0	0.734	26.0	LOS C	10.0	72.5	1.00	1.25	1.71	46.5
25	T1	634	5.0	0.734	27.4	LOS C	10.0	72.5	1.00	1.24	1.72	46.7
26	R2	27	2.0	0.734	35.7	LOS D	8.7	63.6	1.00	1.24	1.72	45.4
Approach		733	4.6	0.734	27.6	LOS C	10.0	72.5	1.00	1.24	1.72	46.6
NorthWest: Bob Robertson Dr												
27	L2	43	2.0	0.124	12.8	LOS B	0.6	4.4	0.83	0.92	0.83	55.3
28	T1	56	2.0	0.216	10.1	LOS B	1.3	9.1	0.87	0.95	0.87	57.0
29	R2	57	2.0	0.216	16.8	LOS B	1.3	9.1	0.87	0.95	0.87	56.7
Approach		156	2.0	0.216	13.3	LOS B	1.3	9.1	0.86	0.94	0.86	56.4
SouthWest: SH1												
30	L2	142	2.0	0.602	6.2	LOS A	5.6	40.5	0.67	0.59	0.67	59.8
31	T1	525	5.0	0.602	5.9	LOS A	5.6	40.5	0.67	0.59	0.67	61.8
32	R2	869	2.0	0.667	12.4	LOS B	7.0	50.1	0.70	0.68	0.70	56.3
Approach		1537	3.0	0.667	9.6	LOS A	7.0	50.1	0.69	0.64	0.69	58.3
All Vehicles		3123	3.1	0.734	14.1	LOS B	10.0	72.5	0.80	0.87	1.00	55.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [SH1 / Pegasus Blvd Rbt - Wk FS2 with Fully Dev Ravenswood]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	518	2.0	0.610	9.3	LOS A	5.1	36.0	0.86	0.99	1.05	58.4
22	T1	158	2.0	0.444	8.8	LOS A	2.8	19.6	0.79	0.93	0.88	58.4
23	R2	127	2.0	0.444	15.5	LOS B	2.8	19.6	0.79	0.93	0.88	58.0
Approach		803	2.0	0.610	10.2	LOS B	5.1	36.0	0.83	0.97	0.99	58.3
NorthEast: SH1												
24	L2	72	2.0	1.157	213.0	LOS F	59.5	432.8	1.00	2.87	6.49	13.9
25	T1	634	5.0	1.157	215.3	LOS F	59.5	432.8	1.00	2.75	6.27	13.9
26	R2	80	2.0	1.157	225.1	LOS F	46.7	338.8	1.00	2.58	5.95	13.7
Approach		785	4.4	1.157	216.1	LOS F	59.5	432.8	1.00	2.75	6.26	13.9
NorthWest: Bob Robertson Dr												
27	L2	96	2.0	0.345	15.3	LOS B	1.9	13.7	0.91	0.97	0.98	53.3
28	T1	214	2.0	0.750	23.5	LOS C	7.1	50.6	1.00	1.19	1.61	48.1
29	R2	109	2.0	0.750	30.2	LOS C	7.1	50.6	1.00	1.19	1.61	47.9
Approach		419	2.0	0.750	23.4	LOS C	7.1	50.6	0.98	1.14	1.47	49.1
SouthWest: SH1												
30	L2	300	2.0	0.809	13.0	LOS B	13.2	95.3	0.98	0.99	1.33	55.4
31	T1	525	5.0	0.809	12.7	LOS B	13.5	96.3	0.98	0.99	1.32	56.9
32	R2	869	2.0	0.809	17.9	LOS B	13.5	96.3	0.96	0.94	1.25	53.6
Approach		1695	2.9	0.809	15.4	LOS B	13.5	96.3	0.97	0.96	1.29	54.9
All Vehicles		3702	2.9	1.157	57.7	LOS E	59.5	432.8	0.95	1.36	2.30	33.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [SH1 / Pegasus Blvd Rbt - Wk Future Base]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	299	2.0	0.346	7.2	LOS A	2.2	15.3	0.75	0.82	0.75	59.9
22	T1	31	2.0	0.179	8.1	LOS A	0.9	6.5	0.71	0.86	0.71	57.5
23	R2	74	2.0	0.179	14.9	LOS B	0.9	6.5	0.71	0.86	0.71	57.2
Approach		403	2.0	0.346	8.7	LOS A	2.2	15.3	0.74	0.83	0.74	59.2
NorthEast: SH1												
24	L2	51	2.0	0.646	13.5	LOS B	7.3	53.2	0.94	1.04	1.27	55.2
25	T1	634	5.0	0.646	12.6	LOS B	7.3	53.2	0.91	1.00	1.16	57.3
26	R2	27	2.0	0.319	17.1	LOS B	2.0	14.2	0.79	0.87	0.79	58.3
Approach		712	4.7	0.646	12.8	LOS B	7.3	53.2	0.91	1.00	1.15	57.2
NorthWest: Bob Robertson Dr												
27	L2	43	2.0	0.087	9.9	LOS A	0.4	2.8	0.73	0.85	0.73	57.8
28	T1	39	2.0	0.133	7.8	LOS A	0.7	4.8	0.73	0.84	0.73	58.2
29	R2	57	2.0	0.133	14.6	LOS B	0.7	4.8	0.73	0.84	0.73	57.9
Approach		139	2.0	0.133	11.2	LOS B	0.7	4.8	0.73	0.84	0.73	58.0
SouthWest: SH1												
30	L2	142	2.0	0.480	5.1	LOS A	4.1	29.5	0.45	0.48	0.45	61.0
31	T1	525	5.0	0.480	4.8	LOS A	4.1	29.5	0.45	0.48	0.45	63.2
32	R2	612	2.0	0.485	11.7	LOS B	4.1	29.0	0.47	0.63	0.47	57.2
Approach		1279	3.2	0.485	8.1	LOS A	4.1	29.5	0.46	0.55	0.46	59.9
All Vehicles		2533	3.4	0.646	9.7	LOS A	7.3	53.2	0.65	0.74	0.72	58.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [SH1 / Pegasus Blvd Rbt - Sun FS1]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	759	2.0	0.876	17.3	LOS B	13.7	97.3	1.00	1.28	1.80	51.8
22	T1	77	2.0	0.394	9.6	LOS A	2.3	16.1	0.78	0.94	0.85	56.7
23	R2	134	2.0	0.394	16.4	LOS B	2.3	16.1	0.78	0.94	0.85	56.4
Approach		969	2.0	0.876	16.6	LOS B	13.7	97.3	0.95	1.21	1.60	52.8
NorthEast: SH1												
24	L2	128	2.0	0.810	24.7	LOS C	13.4	97.2	1.00	1.32	1.88	47.3
25	T1	593	5.0	0.810	21.6	LOS C	13.4	97.2	0.97	1.23	1.65	50.3
26	R2	35	2.0	0.400	19.8	LOS B	2.8	20.0	0.88	0.96	0.96	55.8
Approach		756	4.4	0.810	22.0	LOS C	13.4	97.2	0.97	1.23	1.65	50.0
NorthWest: Bob Robertson Dr												
27	L2	62	2.0	0.165	11.5	LOS B	0.8	5.6	0.81	0.90	0.81	56.4
28	T1	108	2.0	0.320	9.0	LOS A	1.8	13.0	0.85	0.92	0.86	58.3
29	R2	78	2.0	0.320	15.7	LOS B	1.8	13.0	0.85	0.92	0.86	57.9
Approach		248	2.0	0.320	11.7	LOS B	1.8	13.0	0.84	0.91	0.85	57.7
SouthWest: SH1												
30	L2	59	2.0	0.595	6.1	LOS A	5.5	40.3	0.68	0.57	0.68	59.6
31	T1	687	5.0	0.595	5.8	LOS A	5.5	40.3	0.68	0.57	0.68	61.5
32	R2	639	2.0	0.595	12.8	LOS B	5.4	38.4	0.70	0.72	0.70	56.5
Approach		1385	3.5	0.595	9.1	LOS A	5.5	40.3	0.69	0.64	0.69	59.0
All Vehicles		3359	3.1	0.876	14.3	LOS B	13.7	97.3	0.84	0.96	1.18	54.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [SH1 / Pegasus Blvd Rbt - Sun FS2]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	803	2.0	0.931	23.2	LOS C	18.6	132.5	1.00	1.44	2.26	47.8
22	T1	81	2.0	0.418	9.9	LOS A	2.5	17.5	0.79	0.95	0.88	56.5
23	R2	141	2.0	0.418	16.6	LOS B	2.5	17.5	0.79	0.95	0.88	56.2
Approach		1025	2.0	0.931	21.2	LOS C	18.6	132.5	0.95	1.33	1.96	49.5
NorthEast: SH1												
24	L2	137	2.0	0.646	17.2	LOS B	7.4	53.8	1.00	1.13	1.41	52.2
25	T1	593	5.0	0.646	18.2	LOS B	7.4	53.8	1.00	1.14	1.43	52.6
26	R2	35	2.0	0.646	25.9	LOS C	6.7	48.8	1.00	1.15	1.44	51.5
Approach		764	4.3	0.646	18.4	LOS B	7.4	53.8	1.00	1.14	1.43	52.5
NorthWest: Bob Robertson Dr												
27	L2	62	2.0	0.172	11.8	LOS B	0.8	5.9	0.82	0.91	0.82	56.2
28	T1	115	2.0	0.346	9.5	LOS A	2.0	14.5	0.87	0.95	0.91	58.1
29	R2	78	2.0	0.346	16.3	LOS B	2.0	14.5	0.87	0.95	0.91	57.7
Approach		255	2.0	0.346	12.1	LOS B	2.0	14.5	0.86	0.94	0.89	57.5
SouthWest: SH1												
30	L2	59	2.0	0.617	6.3	LOS A	5.9	43.0	0.71	0.59	0.72	59.4
31	T1	687	5.0	0.617	6.0	LOS A	5.9	43.0	0.71	0.59	0.72	61.4
32	R2	680	2.0	0.623	13.3	LOS B	6.1	43.5	0.73	0.74	0.76	56.2
Approach		1426	3.4	0.623	9.5	LOS A	6.1	43.5	0.72	0.66	0.74	58.7
All Vehicles		3471	3.1	0.931	15.1	LOS B	18.6	132.5	0.86	0.99	1.26	54.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [SH1 / Pegasus Blvd Rbt - Sun FS2 with Fully Dev Ravenswood]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	803	2.0	0.998	44.7	LOS D	30.6	217.9	1.00	1.92	3.71	37.3
22	T1	186	2.0	0.582	11.8	LOS B	4.2	29.9	0.87	1.02	1.11	56.0
23	R2	141	2.0	0.582	18.5	LOS B	4.2	29.9	0.87	1.02	1.11	55.7
Approach		1131	2.0	0.998	36.0	LOS D	30.6	217.9	0.96	1.66	2.95	41.4
NorthEast: SH1												
24	L2	137	2.0	0.955	76.6	LOS F	25.8	186.7	1.00	1.85	3.46	28.5
25	T1	593	5.0	0.955	79.2	LOS F	25.8	186.7	1.00	1.81	3.40	28.3
26	R2	87	2.0	0.955	88.9	LOS F	21.1	153.4	1.00	1.76	3.33	27.5
Approach		817	4.2	0.955	79.8	LOS F	25.8	186.7	1.00	1.81	3.40	28.3
NorthWest: Bob Robertson Dr												
27	L2	115	2.0	0.392	14.9	LOS B	2.2	15.4	0.89	0.98	1.01	53.6
28	T1	273	2.0	0.875	30.3	LOS C	10.1	71.6	1.00	1.32	2.05	44.3
29	R2	131	2.0	0.875	37.1	LOS D	10.1	71.6	1.00	1.32	2.05	44.1
Approach		518	2.0	0.875	28.6	LOS C	10.1	71.6	0.98	1.24	1.82	46.0
SouthWest: SH1												
30	L2	217	2.0	0.809	12.9	LOS B	13.5	97.9	0.99	1.01	1.37	55.6
31	T1	687	5.0	0.809	12.8	LOS B	13.5	97.9	0.99	1.02	1.37	56.8
32	R2	680	2.0	0.809	20.7	LOS C	13.1	93.3	1.00	1.06	1.42	51.7
Approach		1584	3.3	0.809	16.2	LOS B	13.5	97.9	1.00	1.03	1.39	54.3
All Vehicles		4049	2.9	0.998	36.2	LOS D	30.6	217.9	0.98	1.39	2.29	41.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Wk Current]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	2	2.0	0.134	4.8	LOS A	0.5	3.4	0.05	0.44	0.05	54.2
22	T1	199	2.0	0.134	4.7	LOS A	0.5	3.4	0.05	0.44	0.05	63.7
23	R2	4	2.0	0.134	10.1	LOS B	0.5	3.4	0.05	0.44	0.05	43.1
Approach		205	2.0	0.134	4.9	LOS A	0.5	3.4	0.05	0.44	0.05	62.9
NorthEast: GC Entrance												
24	L2	6	2.0	0.007	2.7	LOS A	0.0	0.3	0.55	0.33	0.55	39.5
25	T1	1	2.0	0.011	1.8	LOS A	0.1	0.4	0.52	0.45	0.52	35.8
26	R2	12	2.0	0.011	4.6	LOS A	0.1	0.4	0.52	0.45	0.52	38.7
Approach		19	2.0	0.011	3.8	LOS A	0.1	0.4	0.53	0.41	0.53	38.8
NorthWest: Pegasus Blvd												
27	L2	14	2.0	0.267	4.8	LOS A	0.9	6.1	0.03	0.44	0.03	41.0
28	T1	427	2.0	0.267	4.7	LOS A	0.9	6.1	0.03	0.44	0.03	63.9
29	R2	1	2.0	0.267	10.0	LOS B	0.9	6.1	0.03	0.44	0.03	56.4
Approach		442	2.0	0.267	4.7	LOS A	0.9	6.1	0.03	0.44	0.03	62.8
SouthWest: Te Haunui Ln												
30	L2	1	2.0	0.003	3.2	LOS A	0.0	0.0	0.20	0.47	0.20	51.8
31	T1	1	2.0	0.003	3.9	LOS A	0.0	0.0	0.20	0.47	0.20	35.8
32	R2	1	2.0	0.003	7.7	LOS A	0.0	0.0	0.20	0.47	0.20	52.8
Approach		3	2.0	0.003	4.9	LOS A	0.0	0.0	0.20	0.47	0.20	45.3
All Vehicles		669	2.0	0.267	4.8	LOS A	0.9	6.1	0.05	0.44	0.05	61.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Wk Future Base]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	11	2.0	0.243	4.9	LOS A	1.0	7.1	0.12	0.45	0.12	53.9
22	T1	338	2.0	0.243	4.8	LOS A	1.0	7.1	0.12	0.45	0.12	63.3
23	R2	7	2.0	0.243	10.1	LOS B	1.0	7.1	0.12	0.45	0.12	43.0
Approach		356	2.0	0.243	4.9	LOS A	1.0	7.1	0.12	0.45	0.12	62.3
NorthEast: GC Entrance												
24	L2	7	2.0	0.012	6.2	LOS A	0.1	0.5	0.73	0.51	0.73	38.1
25	T1	11	2.0	0.032	4.1	LOS A	0.2	1.5	0.72	0.57	0.72	35.5
26	R2	20	2.0	0.032	6.9	LOS A	0.2	1.5	0.72	0.57	0.72	38.4
Approach		38	2.0	0.032	6.0	LOS A	0.2	1.5	0.72	0.55	0.72	37.5
NorthWest: Pegasus Blvd												
27	L2	17	2.0	0.479	4.8	LOS A	2.3	16.2	0.11	0.44	0.11	40.7
28	T1	726	2.0	0.479	4.8	LOS A	2.3	16.2	0.11	0.44	0.11	63.4
29	R2	11	2.0	0.479	10.1	LOS B	2.3	16.2	0.11	0.44	0.11	55.9
Approach		754	2.0	0.479	4.9	LOS A	2.3	16.2	0.11	0.44	0.11	62.5
SouthWest: Te Haunui Ln												
30	L2	11	2.0	0.027	3.6	LOS A	0.1	0.6	0.30	0.52	0.30	51.5
31	T1	11	2.0	0.027	4.3	LOS A	0.1	0.6	0.30	0.52	0.30	35.7
32	R2	11	2.0	0.027	8.1	LOS A	0.1	0.6	0.30	0.52	0.30	52.5
Approach		32	2.0	0.027	5.3	LOS A	0.1	0.6	0.30	0.52	0.30	45.1
All Vehicles		1179	2.0	0.479	4.9	LOS A	2.3	16.2	0.14	0.45	0.14	60.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Sunday Current]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	1	2.0	0.259	4.8	LOS A	1.0	7.3	0.06	0.45	0.06	54.1
22	T1	399	2.0	0.259	4.7	LOS A	1.0	7.3	0.06	0.45	0.06	63.6
23	R2	11	2.0	0.259	10.1	LOS B	1.0	7.3	0.06	0.45	0.06	43.1
Approach		411	2.0	0.259	4.9	LOS A	1.0	7.3	0.06	0.45	0.06	62.8
NorthEast: GC Entrance												
24	L2	15	2.0	0.011	1.3	LOS A	0.1	0.4	0.44	0.23	0.44	39.9
25	T1	1	2.0	0.012	1.5	LOS A	0.1	0.4	0.46	0.43	0.46	35.9
26	R2	12	2.0	0.012	4.3	LOS A	0.1	0.4	0.46	0.43	0.46	38.9
Approach		27	2.0	0.012	2.6	LOS A	0.1	0.4	0.45	0.32	0.45	39.2
NorthWest: Pegasus Blvd												
27	L2	15	2.0	0.194	4.8	LOS A	0.6	4.1	0.04	0.45	0.04	40.9
28	T1	291	2.0	0.194	4.7	LOS A	0.6	4.1	0.04	0.45	0.04	63.8
29	R2	2	2.0	0.194	10.1	LOS B	0.6	4.1	0.04	0.45	0.04	56.3
Approach		307	2.0	0.194	4.8	LOS A	0.6	4.1	0.04	0.45	0.04	62.1
SouthWest: Te Haunui Ln												
30	L2	2	2.0	0.004	3.7	LOS A	0.0	0.1	0.32	0.48	0.32	51.8
31	T1	1	2.0	0.004	4.5	LOS A	0.0	0.1	0.32	0.48	0.32	35.8
32	R2	1	2.0	0.004	8.3	LOS A	0.0	0.1	0.32	0.48	0.32	52.8
Approach		4	2.0	0.004	5.0	LOS A	0.0	0.1	0.32	0.48	0.32	46.8
All Vehicles		749	2.0	0.259	4.8	LOS A	1.0	7.3	0.07	0.44	0.07	61.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Sunday Full Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	11	2.0	0.569	5.0	LOS A	3.7	26.3	0.24	0.46	0.24	53.4
22	T1	805	2.0	0.569	5.0	LOS A	3.7	26.3	0.24	0.46	0.24	62.5
23	R2	23	2.0	0.569	10.3	LOS B	3.7	26.3	0.24	0.46	0.24	42.6
Approach		839	2.0	0.569	5.1	LOS A	3.7	26.3	0.24	0.46	0.24	61.6
NorthEast: GC Entrance												
24	L2	18	2.0	0.026	4.9	LOS A	0.1	1.0	0.68	0.50	0.68	38.6
25	T1	11	2.0	0.052	3.3	LOS A	0.3	2.4	0.67	0.57	0.67	35.6
26	R2	42	2.0	0.052	6.1	LOS A	0.3	2.4	0.67	0.57	0.67	38.5
Approach		71	2.0	0.052	5.4	LOS A	0.3	2.4	0.68	0.55	0.68	38.0
NorthWest: Pegasus Blvd												
27	L2	34	2.0	0.440	4.9	LOS A	2.0	14.6	0.14	0.45	0.14	40.7
28	T1	621	2.0	0.440	4.8	LOS A	2.0	14.6	0.14	0.45	0.14	63.2
29	R2	11	2.0	0.440	10.2	LOS B	2.0	14.6	0.14	0.45	0.14	55.8
Approach		665	2.0	0.440	4.9	LOS A	2.0	14.6	0.14	0.45	0.14	61.3
SouthWest: Te Haunui Ln												
30	L2	11	2.0	0.038	6.3	LOS A	0.2	1.4	0.62	0.66	0.62	49.9
31	T1	11	2.0	0.038	7.1	LOS A	0.2	1.4	0.62	0.66	0.62	34.9
32	R2	11	2.0	0.038	10.9	LOS B	0.2	1.4	0.62	0.66	0.62	50.9
Approach		32	2.0	0.038	8.1	LOS A	0.2	1.4	0.62	0.66	0.62	43.9
All Vehicles		1606	2.0	0.569	5.1	LOS A	3.7	26.3	0.22	0.46	0.22	59.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Wk Full Dev]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Pegasus Blvd												
21	L2	3	2.0	0.418	5.0	LOS A	2.3	16.3	0.22	0.47	0.22	53.4
22	T1	563	2.0	0.418	4.9	LOS A	2.3	16.3	0.22	0.47	0.22	62.5
23	R2	28	2.0	0.418	10.2	LOS B	2.3	16.3	0.22	0.47	0.22	42.6
Approach		595	2.0	0.418	5.2	LOS A	2.3	16.3	0.22	0.47	0.22	61.1
NorthEast: GC Entrance												
24	L2	29	2.0	0.056	9.2	LOS A	0.4	2.6	0.84	0.69	0.84	36.9
25	T1	11	2.0	0.084	7.0	LOS A	0.6	4.4	0.86	0.72	0.86	34.4
26	R2	52	2.0	0.084	9.8	LOS A	0.6	4.4	0.86	0.72	0.86	37.1
Approach		92	2.0	0.084	9.2	LOS A	0.6	4.4	0.86	0.71	0.86	36.7
NorthWest: Pegasus Blvd												
27	L2	48	2.0	0.658	5.0	LOS A	4.3	30.7	0.20	0.45	0.20	40.5
28	T1	952	2.0	0.658	4.9	LOS A	4.3	30.7	0.20	0.45	0.20	62.8
29	R2	11	2.0	0.658	10.3	LOS B	4.3	30.7	0.20	0.45	0.20	55.5
Approach		1011	2.0	0.658	5.0	LOS A	4.3	30.7	0.20	0.45	0.20	61.1
SouthWest: Te Haunui Ln												
30	L2	11	2.0	0.032	4.6	LOS A	0.1	0.9	0.47	0.59	0.47	50.9
31	T1	11	2.0	0.032	5.4	LOS A	0.1	0.9	0.47	0.59	0.47	35.4
32	R2	11	2.0	0.032	9.2	LOS A	0.1	0.9	0.47	0.59	0.47	51.9
Approach		32	2.0	0.032	6.4	LOS A	0.1	0.9	0.47	0.59	0.47	44.7
All Vehicles		1728	2.0	0.658	5.3	LOS A	4.3	30.7	0.25	0.47	0.25	58.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix D
Volume Plots

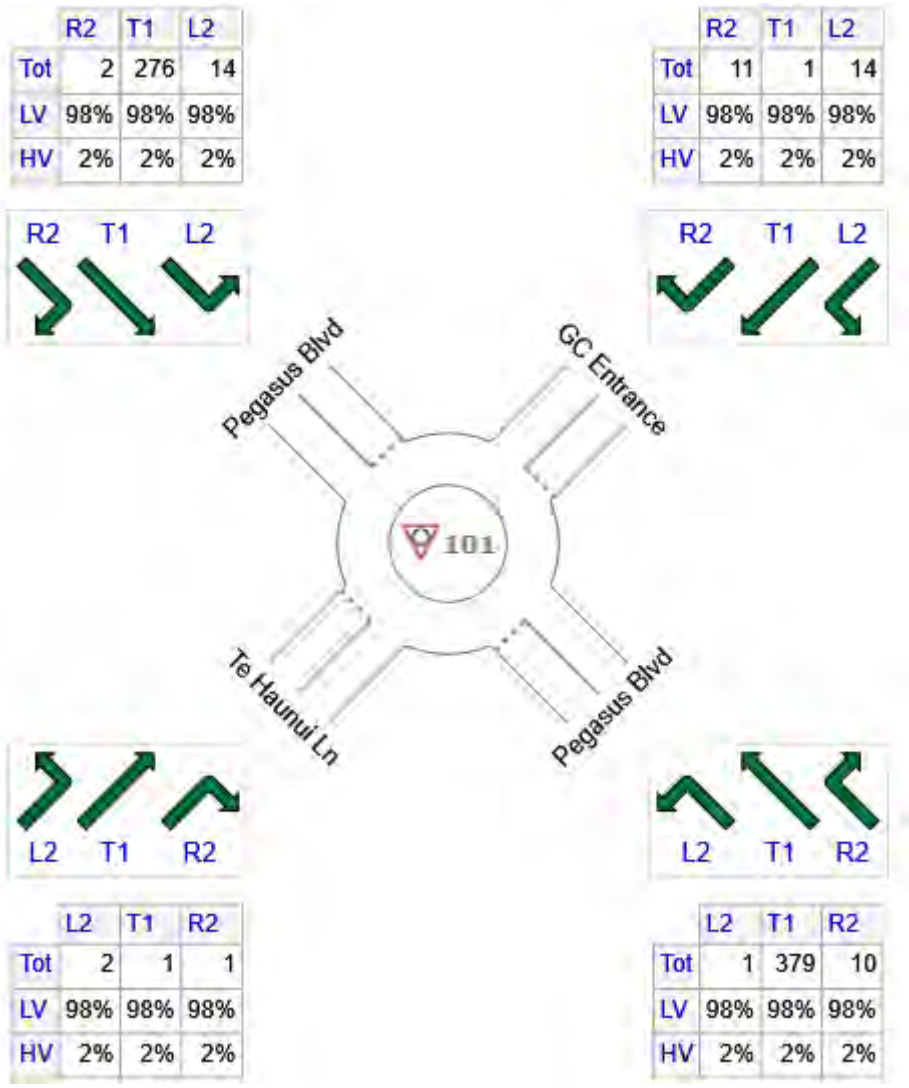
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Sunday Current]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	390	382	8
NE: GC Entrance	26	25	1
NW: Pegasus Blvd	292	286	6
SW: Te Haunui Ln	4	4	0
Total	712	698	14

SIDRA INTERSECTION 8.0 | Copyright © 2000-2019 Akcelik and Associates Pty Ltd | sidrasolutions.com

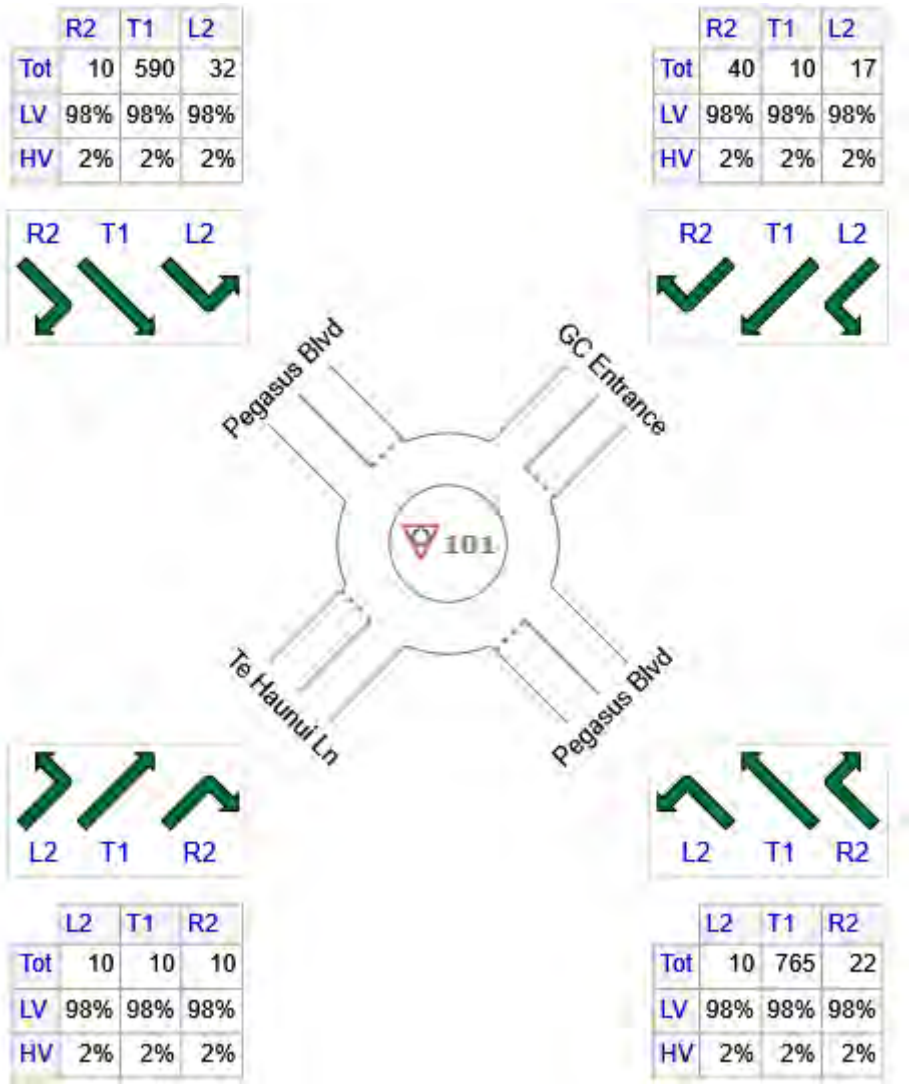
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Sunday Full Dev]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	797	781	16
NE: GC Entrance	67	66	1
NW: Pegasus Blvd	632	619	13
SW: Te Haunui Ln	30	29	1
Total	1526	1495	31

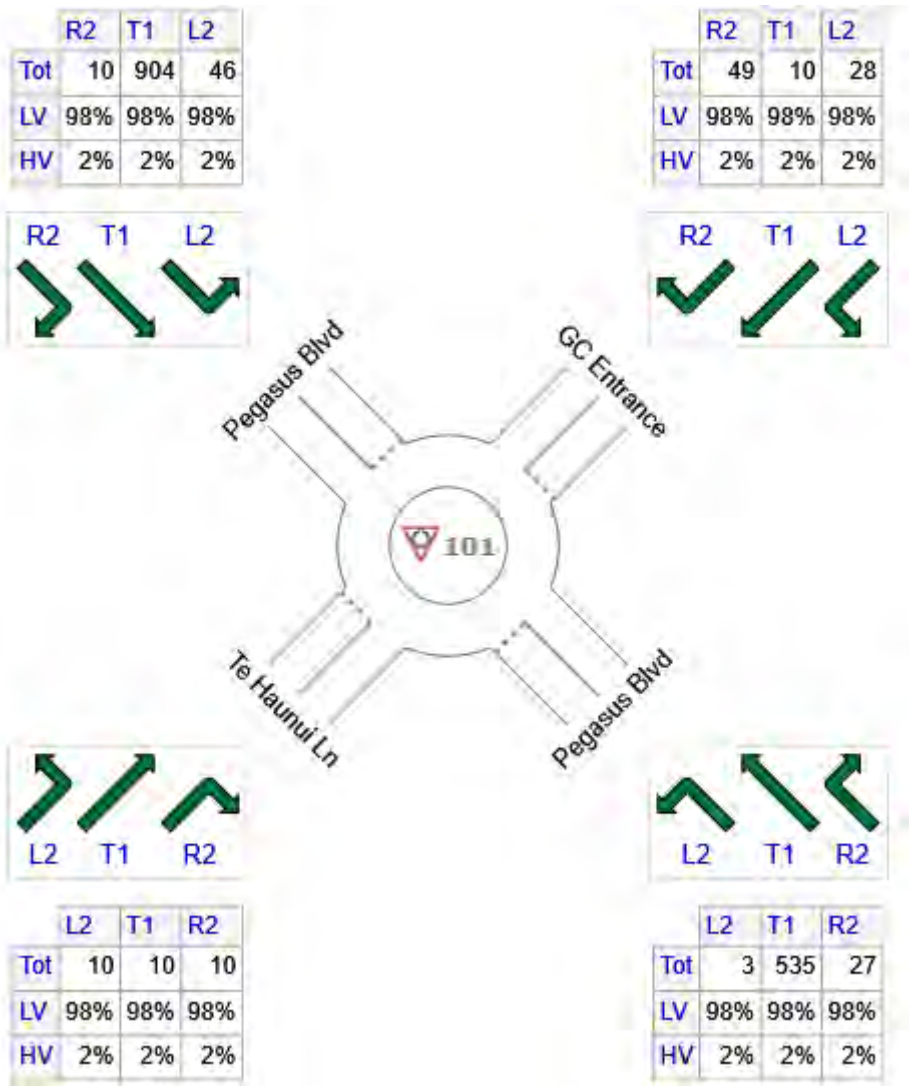
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Wk Full Dev]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	565	554	11
NE: GC Entrance	87	85	2
NW: Pegasus Blvd	960	941	19
SW: Te Haunui Ln	30	29	1
Total	1642	1609	33

SIDRA INTERSECTION 8.0 | Copyright © 2000-2019 Akcelik and Associates Pty Ltd | sidrasolutions.com

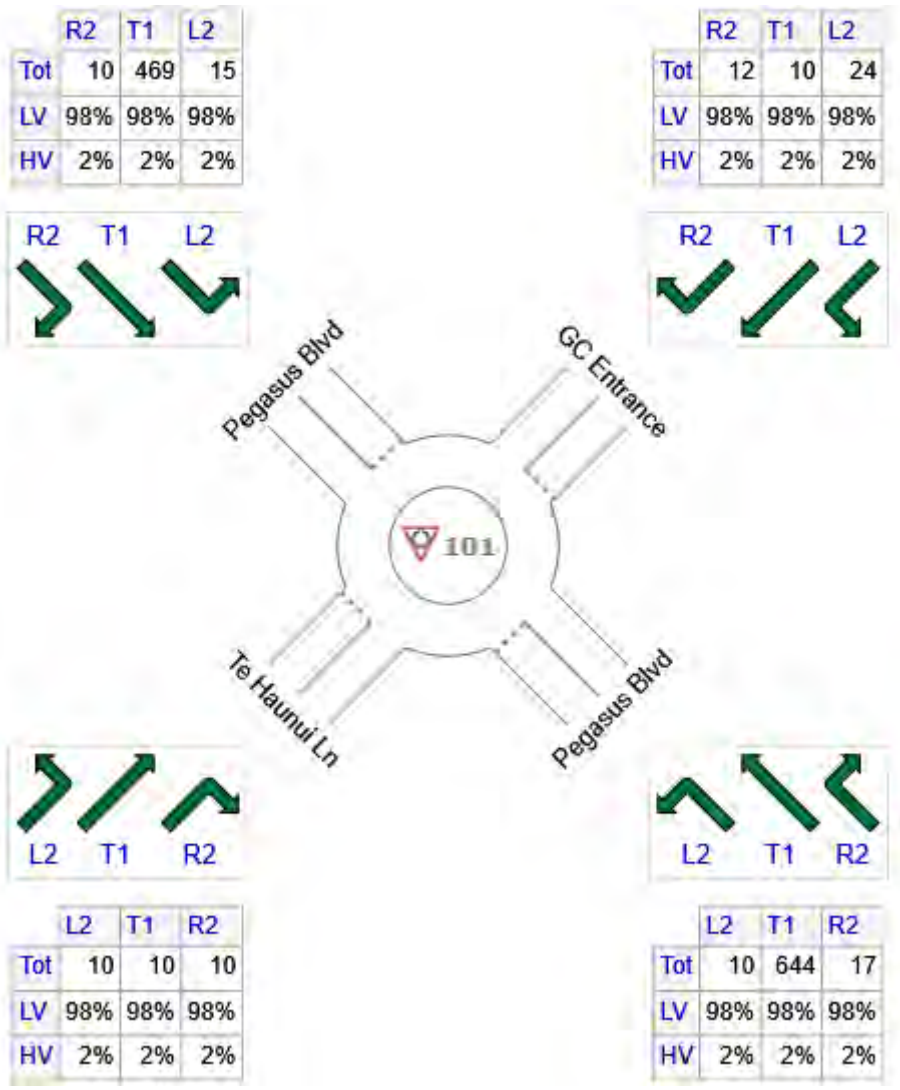
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Sunday Future Base]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	671	658	13
NE: GC Entrance	46	45	1
NW: Pegasus Blvd	494	484	10
SW: Te Haunui Ln	30	29	1
Total	1241	1216	25

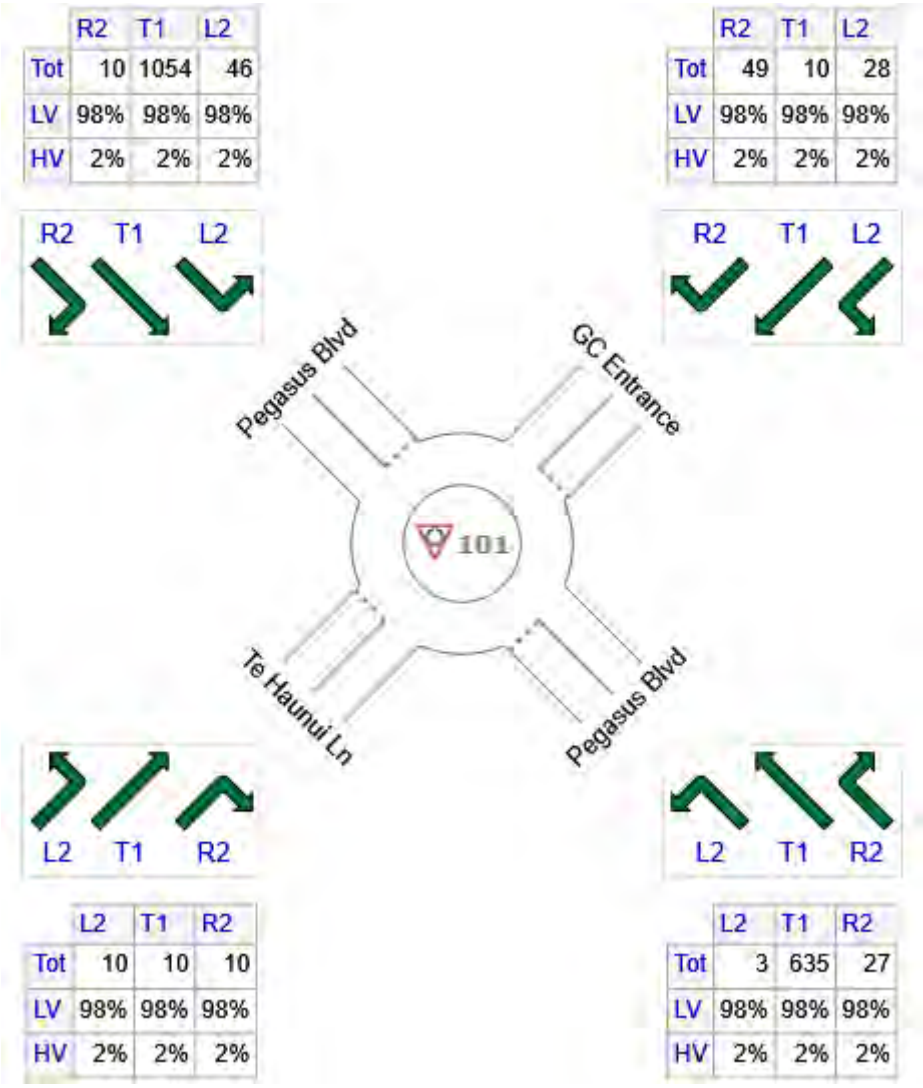
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Wk Full Dev with Ravenswood]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	665	652	13
NE: GC Entrance	87	85	2
NW: Pegasus Blvd	1110	1088	22
SW: Te Haunui Ln	30	29	1
Total	1892	1854	38

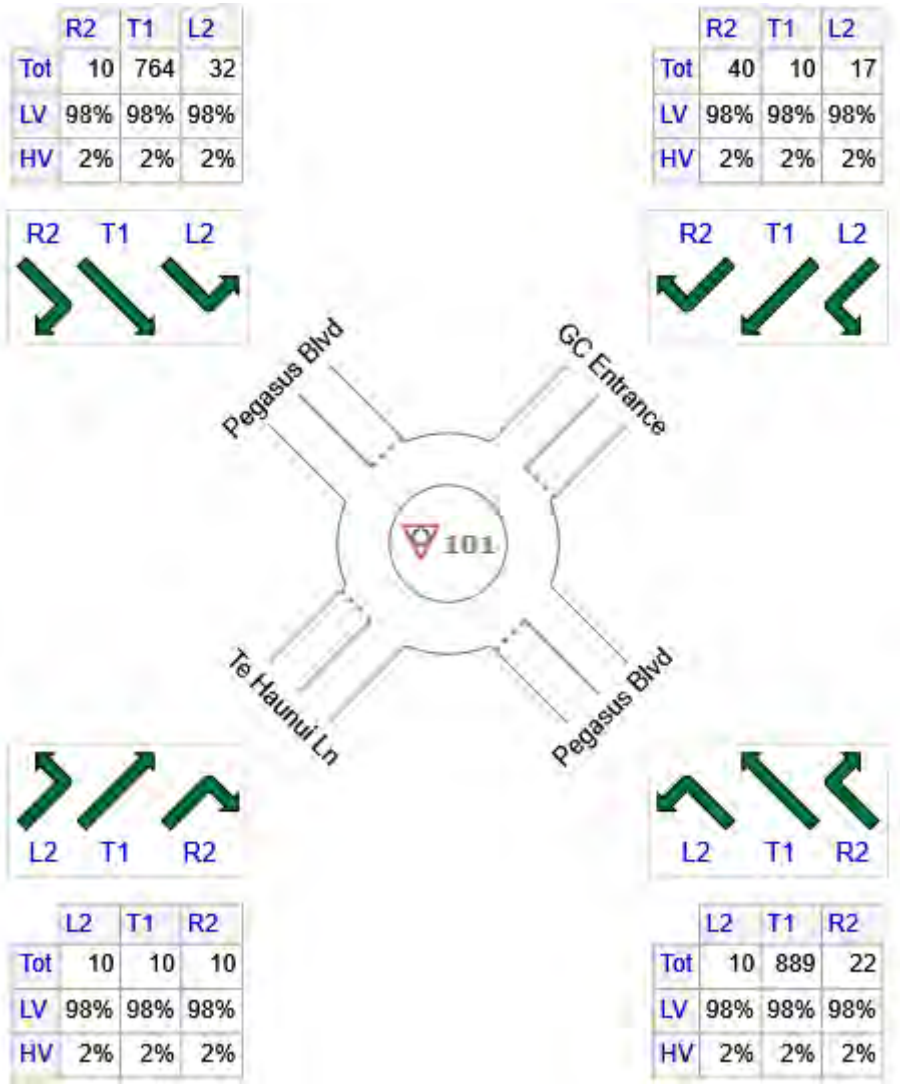
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Sunday Full Dev with Ravenswood]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	921	903	18
NE: GC Entrance	67	66	1
NW: Pegasus Blvd	806	790	16
SW: Te Haunui Ln	30	29	1
Total	1824	1788	36

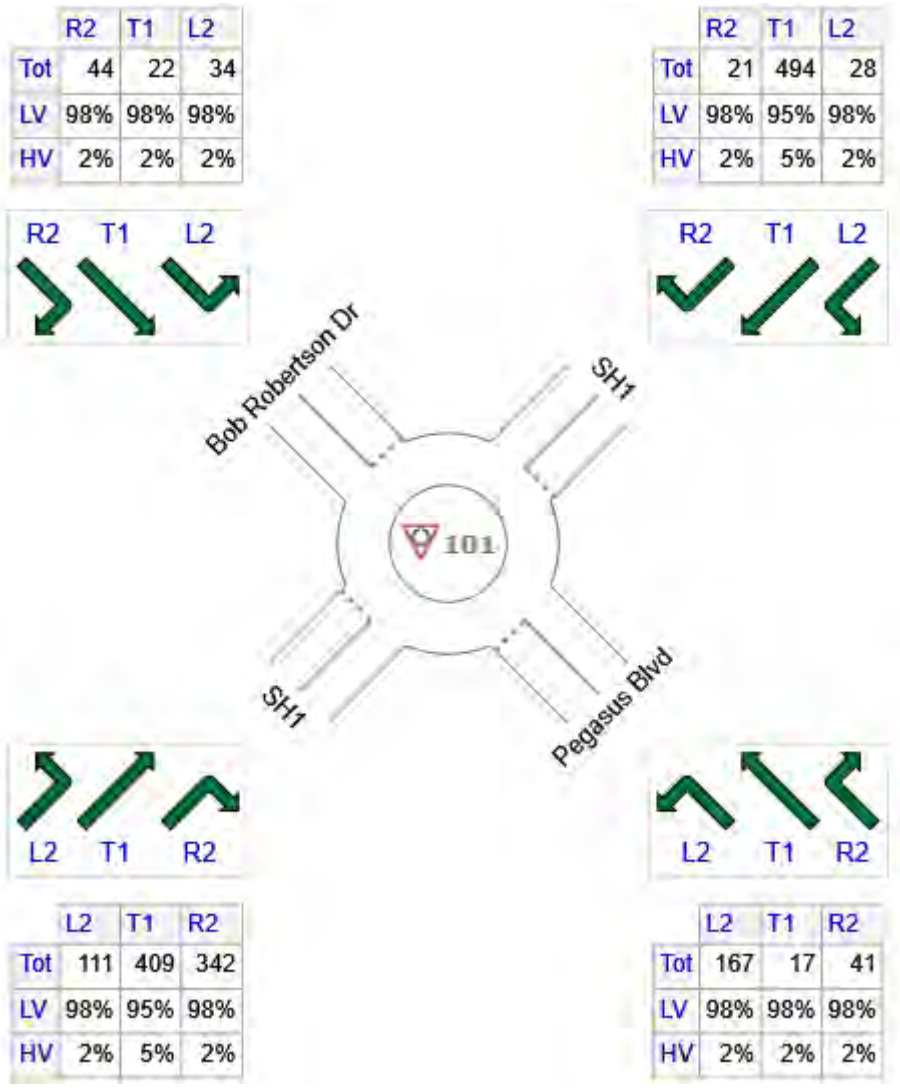
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [SH1 / Pegasus Blvd Rbt - Wk Current]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	225	221	5
NE: SH1	543	517	26
NW: Bob Robertson Dr	100	98	2
SW: SH1	862	832	30
Total	1730	1668	62

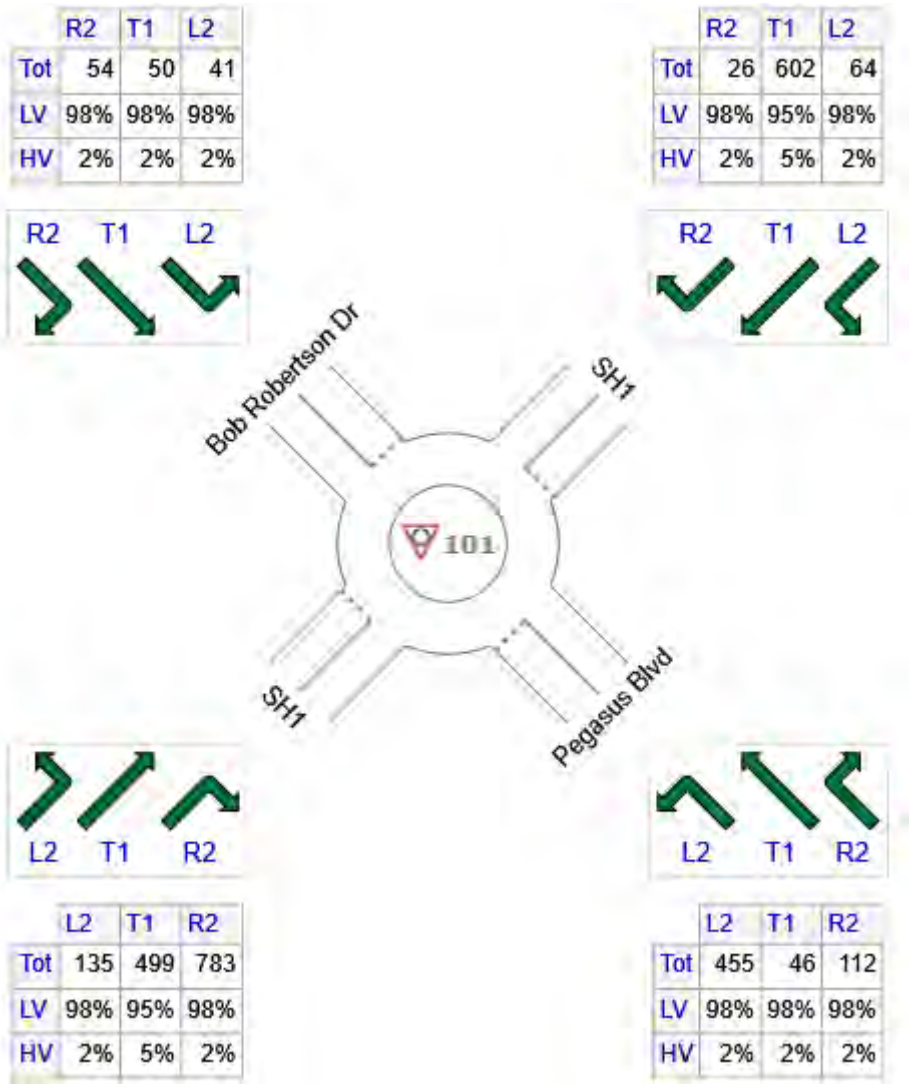
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [SH1 / Pegasus Blvd Rbt - Wk FS1]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	613	601	12
NE: SH1	692	660	32
NW: Bob Robertson Dr	145	142	3
SW: SH1	1417	1374	43
Total	2867	2777	90

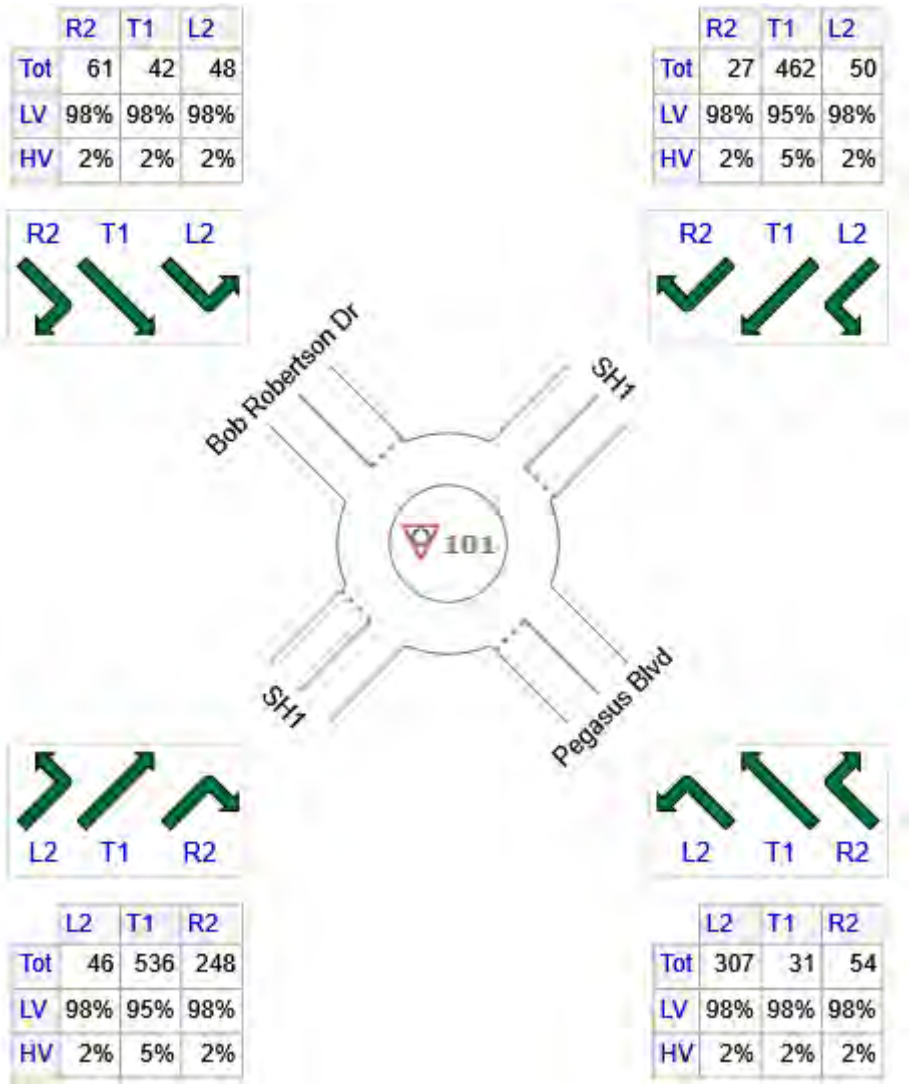
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [SH1 / Pegasus Blvd Rbt - Sun Current]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	392	384	8
NE: SH1	539	514	25
NW: Bob Robertson Dr	151	148	3
SW: SH1	830	797	33
Total	1912	1844	68

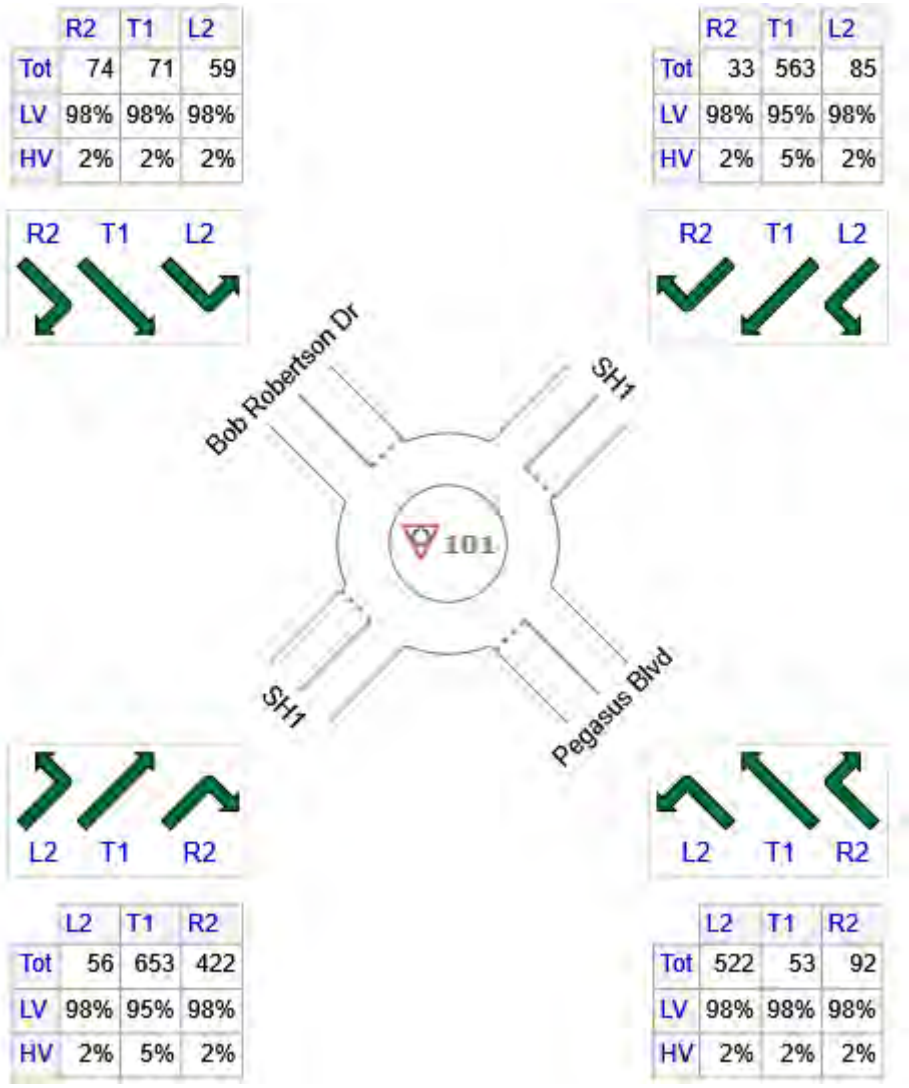
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [SH1 / Pegasus Blvd Rbt - Sun Future Base]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	667	654	13
NE: SH1	681	650	31
NW: Bob Robertson Dr	204	200	4
SW: SH1	1131	1089	42
Total	2683	2593	90

SIDRA INTERSECTION 8.0 | Copyright © 2000-2019 Akcelik and Associates Pty Ltd | sidrasolutions.com

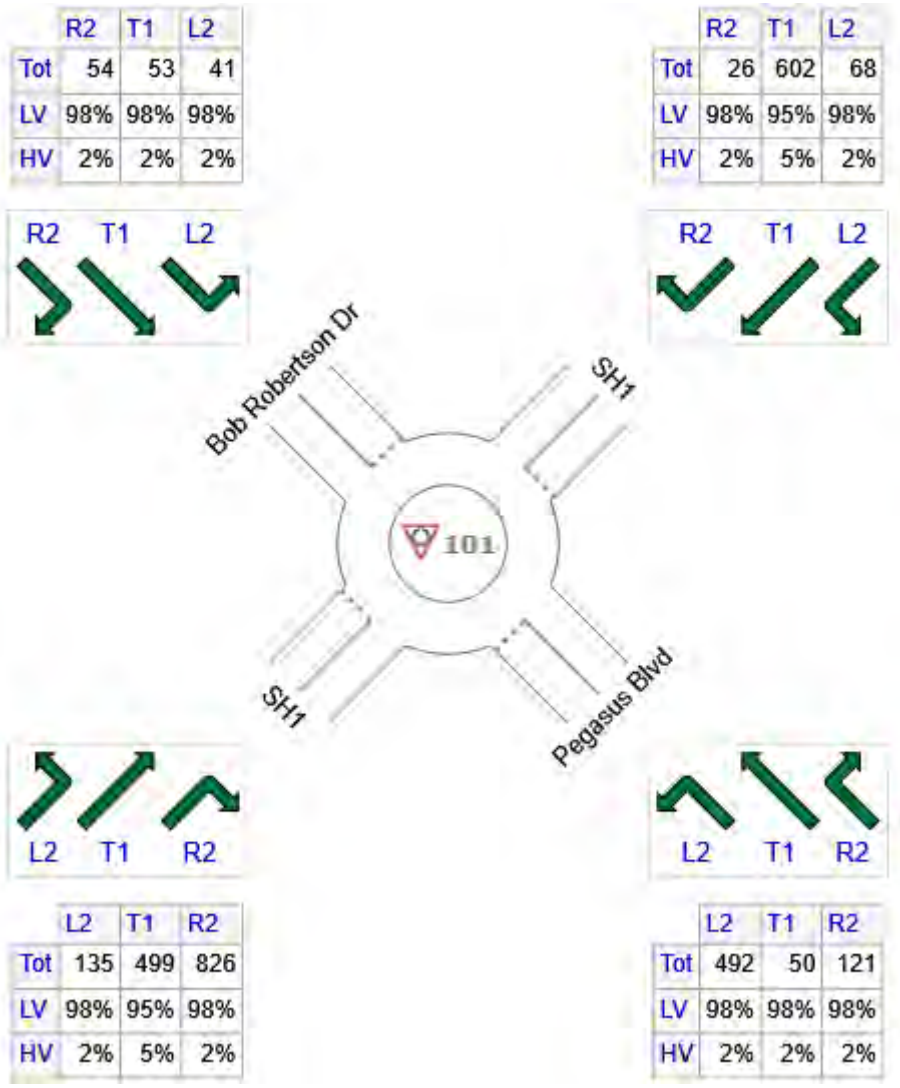
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [SH1 / Pegasus Blvd Rbt - Wk FS2]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	663	650	13
NE: SH1	696	664	32
NW: Bob Robertson Dr	148	145	3
SW: SH1	1460	1416	44
Total	2967	2875	92

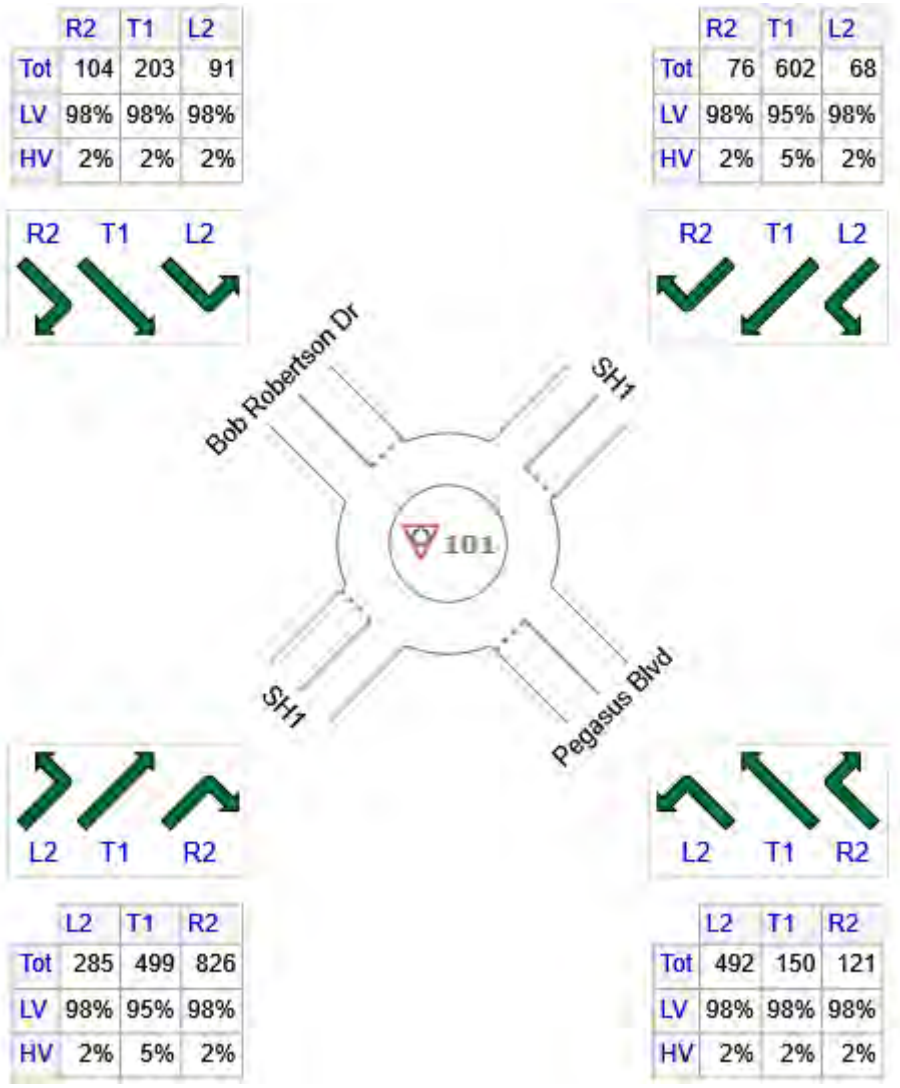
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [SH1 / Pegasus Blvd Rbt - Wk FS2 with Fully Dev Ravenswood]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	763	748	15
NE: SH1	746	713	33
NW: Bob Robertson Dr	398	390	8
SW: SH1	1610	1563	47
Total	3517	3414	103

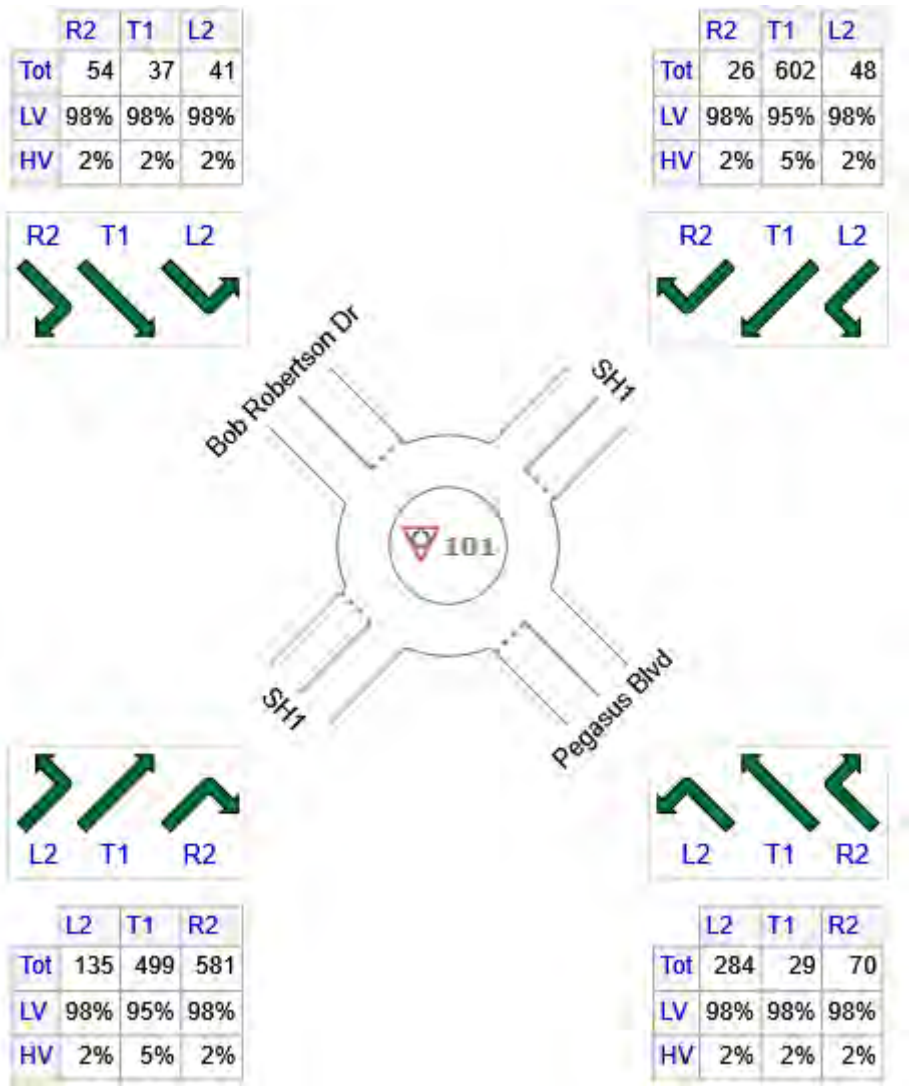
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [SH1 / Pegasus Blvd Rbt - Wk Future Base]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	383	375	8
NE: SH1	676	644	32
NW: Bob Robertson Dr	132	129	3
SW: SH1	1215	1176	39
Total	2406	2325	81

SIDRA INTERSECTION 8.0 | Copyright © 2000-2019 Akcelik and Associates Pty Ltd | sidrasolutions.com

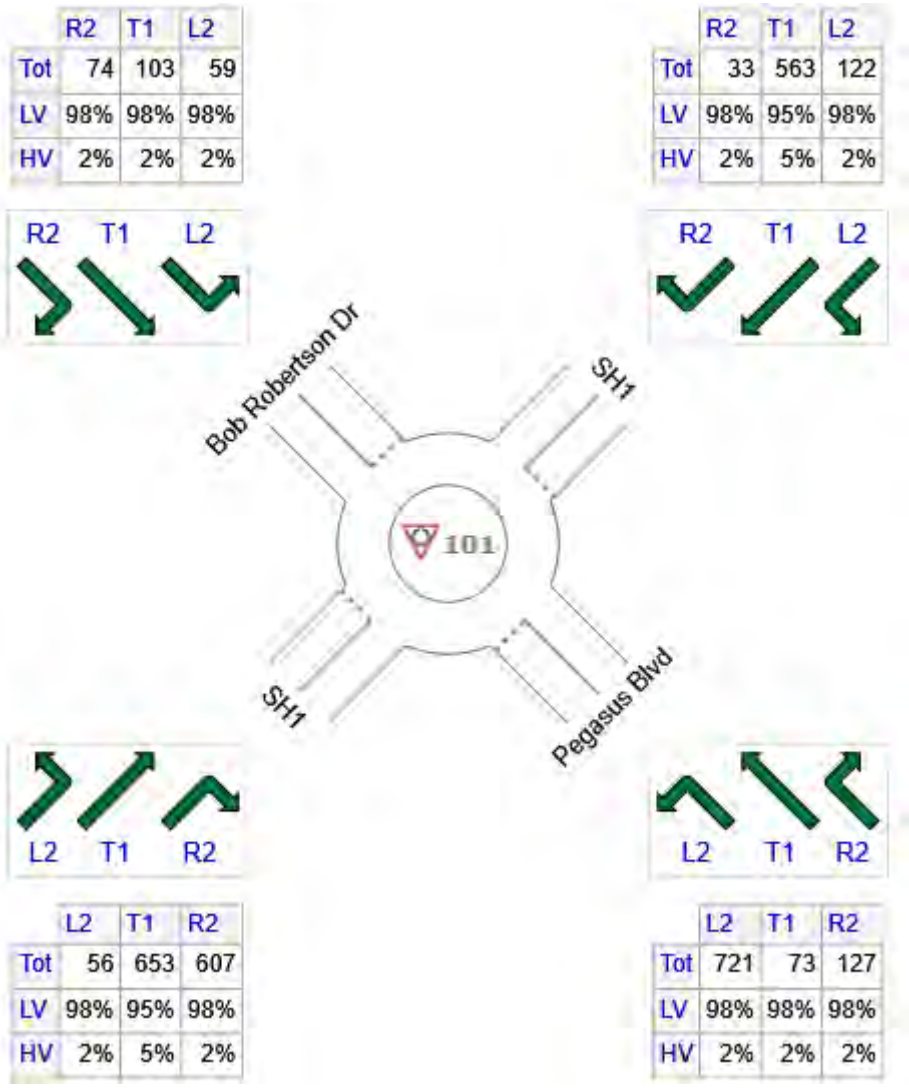
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [SH1 / Pegasus Blvd Rbt - Sun FS1]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	921	903	18
NE: SH1	718	687	31
NW: Bob Robertson Dr	236	231	5
SW: SH1	1316	1270	46
Total	3191	3091	100

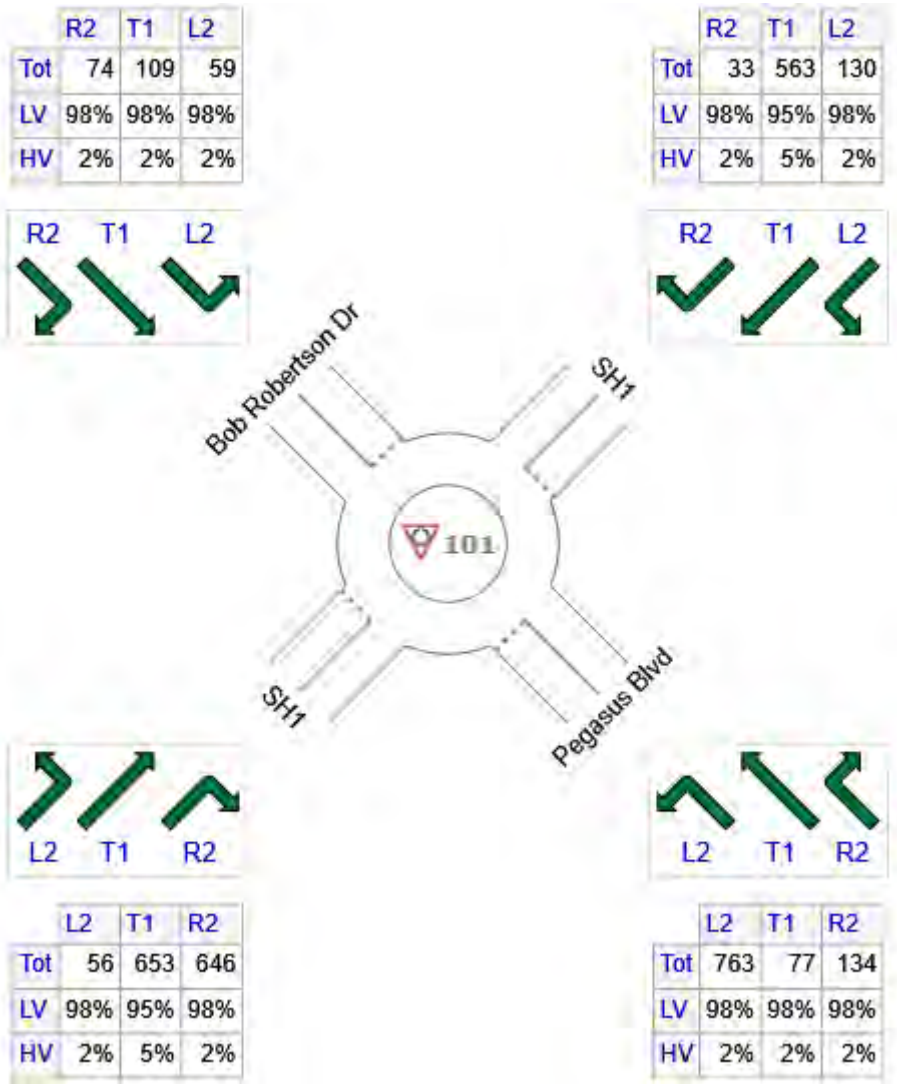
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [SH1 / Pegasus Blvd Rbt - Sun FS2]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	974	955	19
NE: SH1	726	695	31
NW: Bob Robertson Dr	242	237	5
SW: SH1	1355	1308	47
Total	3297	3195	102

SIDRA INTERSECTION 8.0 | Copyright © 2000-2019 Akcelik and Associates Pty Ltd | sidrasolutions.com

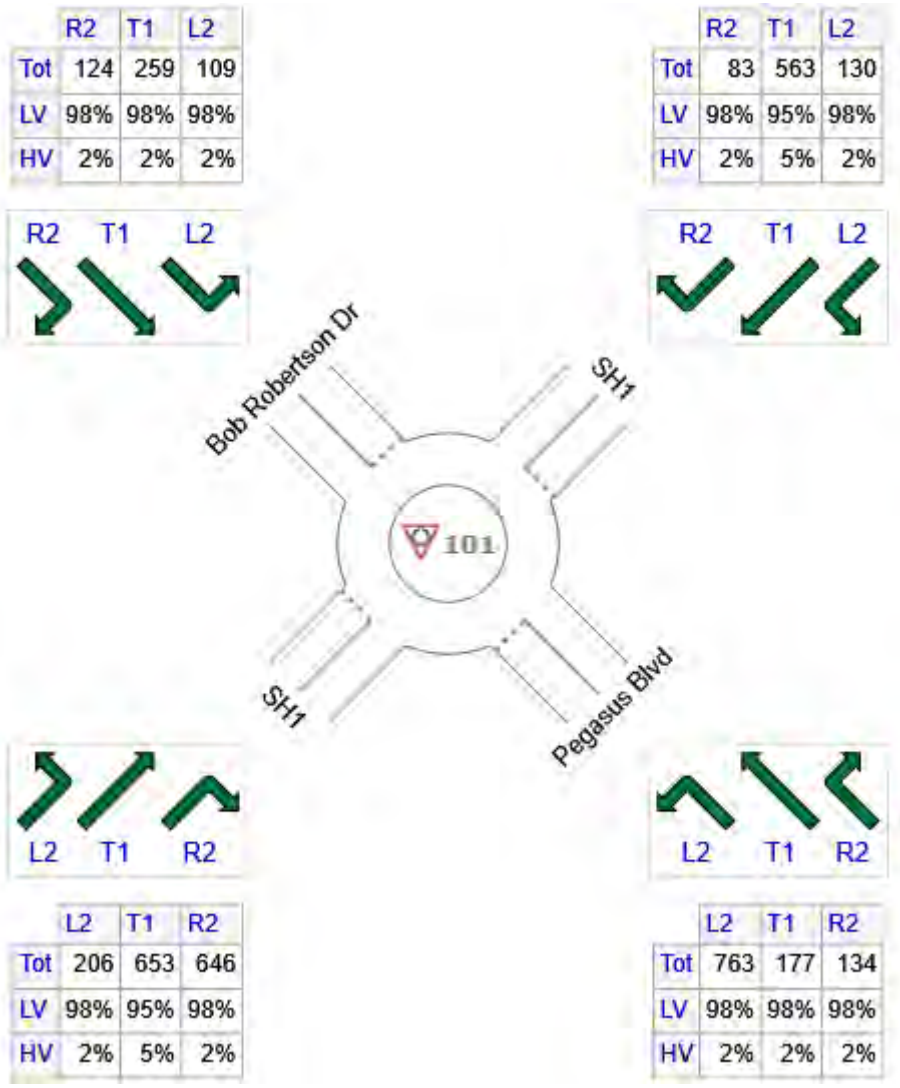
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [SH1 / Pegasus Blvd Rbt - Sun FS2 with Fully Dev Ravenswood]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	1074	1053	21
NE: SH1	776	744	32
NW: Bob Robertson Dr	492	482	10
SW: SH1	1505	1455	50
Total	3847	3734	113

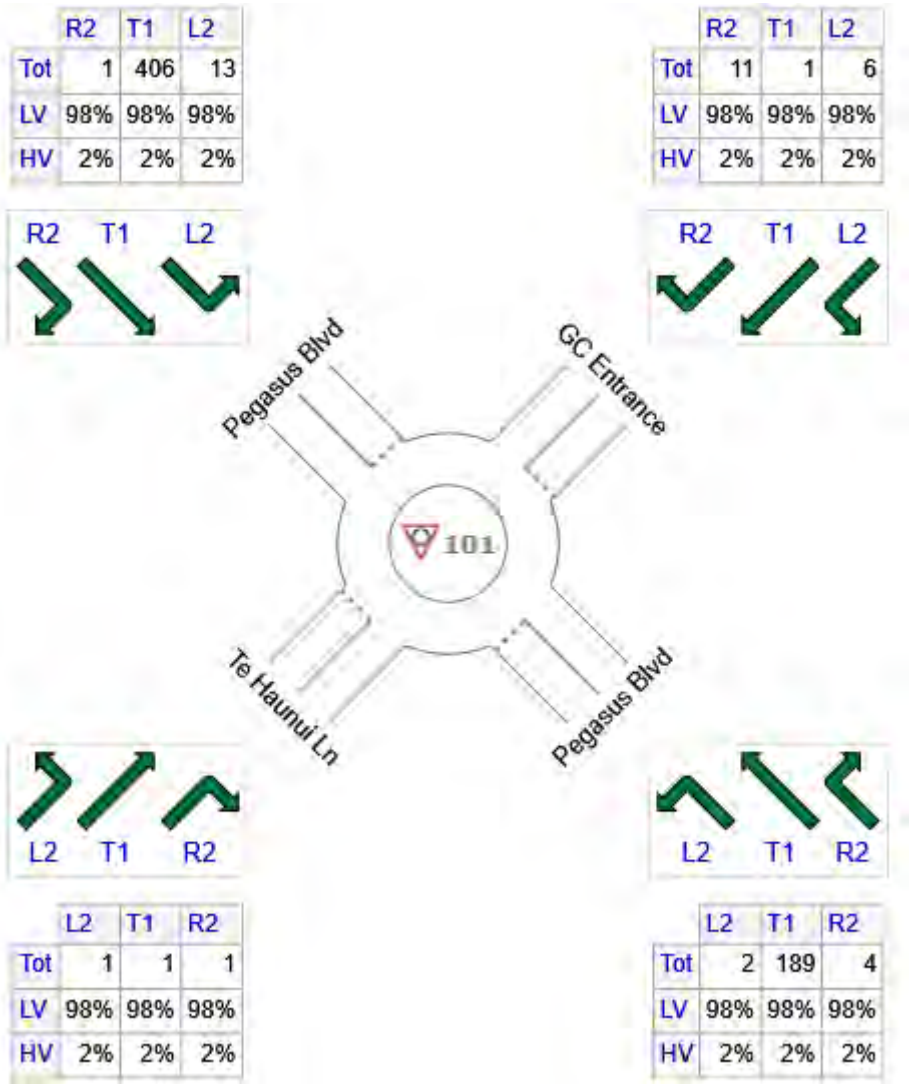
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Wk Current]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	195	191	4
NE: GC Entrance	18	18	0
NW: Pegasus Blvd	420	412	8
SW: Te Haunui Ln	3	3	0
Total	636	623	13

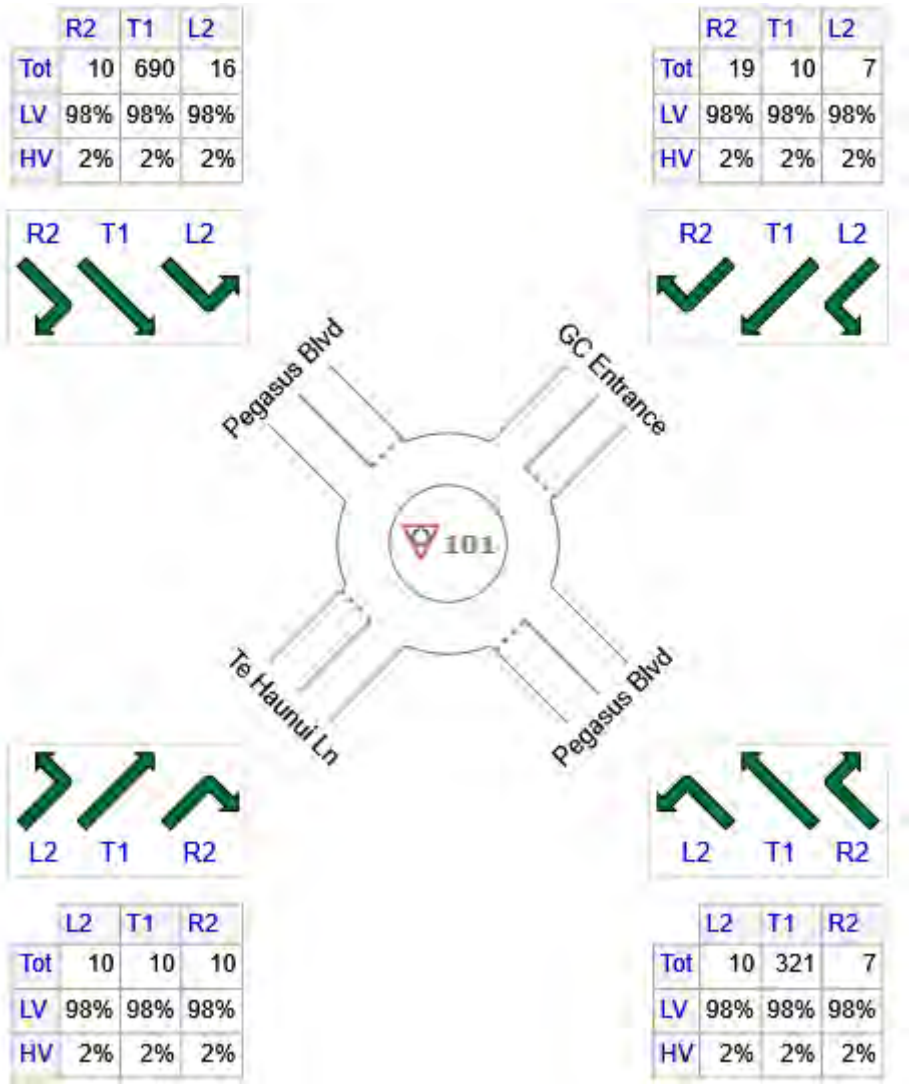
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101 [Pegasus Blvd / Te Haunio Ln Rbt - Wk Future Base]

New Site
Site Category: (None)
Roundabout

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
SE: Pegasus Blvd	338	331	7
NE: GC Entrance	36	35	1
NW: Pegasus Blvd	716	702	14
SW: Te Haunui Ln	30	29	1
Total	1120	1098	22

T +64 9 486 0898 (Akld)
T +64 3 377 4703 (Chch)
E office@ableY.com

Auckland
Level 1, 70 Shortland Street
PO Box 911336
Auckland 1142
New Zealand

Christchurch
Level 1, 137 Victoria Street
PO Box 25350
Christchurch 8144
New Zealand

www.ableY.com

Appendix B.
Modelling Results

USER REPORT FOR SITE

All Movement Classes

Project: SH1 - Pegasus Roundabout 2022 Base | **Template: Movement Summary Report**

Site: 101 [SH1 / Pegasus Blvd Rbt Weekday Existing 2022 - CB Check (Site Folder: Makete Development)]

SH1 / Pegasus Blvd Rbt
Site Category: Existing
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: Pegasus Blvd														
21	L2	129	2.0	136	2.0	0.173	7.2	LOS A	0.9	6.2	0.64	0.75	0.64	60.4
22	T1	145	2.0	153	2.0	0.185	6.1	LOS A	1.0	7.0	0.63	0.63	0.63	54.1
23	R2	23	2.0	24	2.0	0.185	12.9	LOS B	1.0	7.0	0.63	0.63	0.63	61.0
Approach		297	2.0	313	2.0	0.185	7.1	LOS A	1.0	7.0	0.63	0.68	0.63	57.2
NorthEast: SH1														
24	L2	46	2.0	48	2.0	0.444	8.6	LOS A	3.4	24.7	0.81	0.81	0.83	58.8
25	T1	407	5.0	428	5.0	0.444	8.6	LOS A	3.4	24.7	0.80	0.81	0.81	60.3
26	R2	45	2.0	47	2.0	0.219	15.8	LOS B	1.3	9.3	0.73	0.81	0.73	52.9
Approach		498	4.5	524	4.5	0.444	9.3	LOS A	3.4	24.7	0.79	0.81	0.81	59.4
NorthWest: Bob Robertson Dr														
27	L2	114	2.0	120	2.0	0.231	8.2	LOS A	1.2	8.6	0.76	0.84	0.76	50.7
28	T1	177	2.0	186	2.0	0.438	6.2	LOS A	3.1	21.9	0.83	0.92	0.91	51.5
29	R2	146	2.0	154	2.0	0.438	12.7	LOS B	3.1	21.9	0.83	0.92	0.91	51.2
Approach		437	2.0	460	2.0	0.438	8.9	LOS A	3.1	21.9	0.81	0.90	0.87	51.2
SouthWest: SH1														
30	L2	167	2.0	176	2.0	0.331	6.1	LOS A	2.2	15.5	0.53	0.58	0.53	53.3
31	T1	538	5.0	566	5.0	0.559	5.7	LOS A	4.9	35.3	0.59	0.61	0.59	60.9
32	R2	273	2.0	287	2.0	0.559	12.3	LOS B	4.9	35.3	0.61	0.62	0.61	60.0
Approach		978	3.7	1029	3.7	0.559	7.6	LOS A	4.9	35.3	0.59	0.61	0.59	59.2
All Vehicles		2210	3.3	2326	3.3	0.559	8.2	LOS A	4.9	35.3	0.68	0.72	0.70	57.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [SH1 / Pegasus Blvd Rbt Weekday Future Base - CB Check (Site Folder: Makete Development)]

SH1 / Pegasus Blvd Rbt
Site Category: Future
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: Pegasus Blvd														
21	L2	305	2.0	321	2.0	0.367	7.1	LOS A	2.2	15.6	0.74	0.80	0.74	60.0
22	T1	215	2.0	226	2.0	0.404	7.9	LOS A	2.4	17.2	0.76	0.82	0.81	53.0
23	R2	63	2.0	66	2.0	0.404	14.7	LOS B	2.4	17.2	0.76	0.82	0.81	59.6
Approach		583	2.0	614	2.0	0.404	8.2	LOS A	2.4	17.2	0.75	0.81	0.77	57.1
NorthEast: SH1														
24	L2	103	2.0	108	2.0	0.802	29.6	LOS C	13.0	94.6	1.00	1.35	1.99	44.5
25	T1	468	5.0	493	5.0	0.802	26.5	LOS C	13.0	94.6	0.98	1.27	1.77	47.2
26	R2	54	2.0	57	2.0	0.396	21.9	LOS C	2.7	19.9	0.91	0.99	1.01	48.7
Approach		625	4.2	658	4.2	0.802	26.6	LOS C	13.0	94.6	0.98	1.26	1.74	46.8
NorthWest: Bob Robertson Dr														
27	L2	131	2.0	138	2.0	0.415	13.8	LOS B	2.6	18.3	0.91	0.99	1.05	47.1
28	T1	263	2.0	277	2.0	0.875	30.9	LOS C	12.9	92.0	1.00	1.51	2.22	38.8
29	R2	168	2.0	177	2.0	0.875	37.5	LOS D	12.9	92.0	1.00	1.51	2.22	38.6
Approach		562	2.0	592	2.0	0.875	28.9	LOS C	12.9	92.0	0.98	1.39	1.95	40.4
SouthWest: SH1														
30	L2	207	2.0	218	2.0	0.496	7.8	LOS A	3.8	27.2	0.73	0.74	0.75	52.4
31	T1	618	5.0	651	5.0	0.839	11.1	LOS B	15.6	112.2	0.92	0.91	1.17	56.8
32	R2	463	2.0	487	2.0	0.839	19.0	LOS B	15.6	112.2	1.00	0.97	1.35	54.8
Approach		1288	3.4	1356	3.4	0.839	13.4	LOS B	15.6	112.2	0.92	0.90	1.17	55.3
All Vehicles		3058	3.1	3219	3.1	0.875	17.9	LOS B	15.6	112.2	0.91	1.05	1.35	50.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [SH1 / Pegasus Blvd Rbt Weekday Post Development 2030 - CB Check (Site Folder: Makete Development)]

SH1 / Pegasus Blvd Rbt
Site Category: Future
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: Pegasus Blvd														
21	L2	310	2.0	326	2.0	0.378	7.2	LOS A	2.3	16.2	0.75	0.81	0.75	59.9
22	T1	216	2.0	227	2.0	0.431	8.2	LOS A	2.7	19.1	0.78	0.86	0.85	52.7
23	R2	78	2.0	82	2.0	0.431	15.0	LOS B	2.7	19.1	0.78	0.86	0.85	59.3
Approach		604	2.0	636	2.0	0.431	8.6	LOS A	2.7	19.1	0.76	0.84	0.80	57.0
NorthEast: SH1														
24	L2	103	2.0	108	2.0	0.885	45.8	LOS D	18.7	136.0	1.00	1.57	2.63	37.3
25	T1	479	5.0	504	5.0	0.885	39.9	LOS D	18.7	136.0	0.99	1.45	2.31	40.4
26	R2	57	2.0	60	2.0	0.437	24.5	LOS C	3.2	23.2	0.94	1.03	1.11	47.2
Approach		639	4.2	673	4.2	0.885	39.4	LOS D	18.7	136.0	0.99	1.43	2.25	40.4
NorthWest: Bob Robertson Dr														
27	L2	142	2.0	149	2.0	0.481	16.5	LOS B	3.1	22.4	0.93	1.04	1.15	45.6
28	T1	279	2.0	294	2.0	0.986	65.9	LOS E	23.6	167.9	1.00	2.10	3.64	28.6
29	R2	168	2.0	177	2.0	0.986	72.6	LOS F	23.6	167.9	1.00	2.10	3.64	28.5
Approach		589	2.0	620	2.0	0.986	55.9	LOS E	23.6	167.9	0.98	1.84	3.04	31.3
SouthWest: SH1														
30	L2	197	2.0	207	2.0	0.530	8.5	LOS A	4.3	31.3	0.76	0.79	0.82	52.1
31	T1	650	5.0	684	5.0	0.895	14.0	LOS B	21.1	151.9	0.92	1.00	1.35	54.5
32	R2	500	2.0	526	2.0	0.895	23.1	LOS C	21.1	151.9	1.00	1.10	1.60	51.6
Approach		1347	3.4	1418	3.4	0.895	16.6	LOS B	21.1	151.9	0.93	1.00	1.36	53.0
All Vehicles		3179	3.1	3346	3.1	0.986	26.9	LOS C	23.6	167.9	0.92	1.21	1.75	45.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [SH1 / Pegasus Blvd Rbt Sunday Existing 2022 - CB Check (Site Folder: Makete Development)]

SH1 / Pegasus Blvd Rbt
Site Category: Existing
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: Pegasus Blvd														
21	L2	168	2.0	177	2.0	0.242	7.8	LOS A	1.3	9.1	0.70	0.82	0.70	59.9
22	T1	152	2.0	160	2.0	0.218	6.6	LOS A	1.2	8.5	0.69	0.68	0.69	53.7
23	R2	31	2.0	33	2.0	0.218	13.4	LOS B	1.2	8.5	0.69	0.68	0.69	60.5
Approach		351	2.0	369	2.0	0.242	7.8	LOS A	1.3	9.1	0.69	0.75	0.69	57.0
NorthEast: SH1														
24	L2	43	2.0	45	2.0	0.502	7.5	LOS A	4.0	29.4	0.76	0.72	0.78	59.2
25	T1	553	5.0	582	5.0	0.502	7.5	LOS A	4.0	29.4	0.74	0.73	0.76	60.9
26	R2	52	2.0	55	2.0	0.248	14.4	LOS B	1.5	10.5	0.66	0.75	0.66	54.0
Approach		648	4.6	682	4.6	0.502	8.1	LOS A	4.0	29.4	0.73	0.73	0.75	60.2
NorthWest: Bob Robertson Dr														
27	L2	91	2.0	96	2.0	0.169	7.1	LOS A	0.8	6.0	0.69	0.75	0.69	51.5
28	T1	186	2.0	196	2.0	0.353	4.4	LOS A	2.2	15.5	0.73	0.70	0.73	52.5
29	R2	112	2.0	118	2.0	0.353	10.9	LOS B	2.2	15.5	0.73	0.70	0.73	52.3
Approach		389	2.0	409	2.0	0.353	6.9	LOS A	2.2	15.5	0.72	0.71	0.72	52.2
SouthWest: SH1														
30	L2	125	2.0	132	2.0	0.262	6.1	LOS A	1.6	11.6	0.52	0.58	0.52	53.3
31	T1	484	5.0	509	5.0	0.443	5.7	LOS A	3.4	24.5	0.56	0.59	0.56	61.5
32	R2	138	2.0	145	2.0	0.443	12.2	LOS B	3.4	24.5	0.57	0.59	0.57	60.8
Approach		747	3.9	786	3.9	0.443	6.9	LOS A	3.4	24.5	0.56	0.59	0.56	59.8
All Vehicles		2135	3.5	2247	3.5	0.502	7.4	LOS A	4.0	29.4	0.66	0.68	0.67	57.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [SH1 / Pegasus Blvd Rbt Sunday Future Base - CB Check (Site Folder: Makete Development)]

SH1 / Pegasus Blvd Rbt
Site Category: Future
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: Pegasus Blvd														
21	L2	385	2.0	405	2.0	0.519	9.1	LOS A	3.8	27.3	0.85	0.97	0.99	58.7
22	T1	227	2.0	239	2.0	0.542	10.4	LOS B	3.8	27.4	0.86	0.99	1.05	51.4
23	R2	94	2.0	99	2.0	0.542	17.2	LOS B	3.8	27.4	0.86	0.99	1.05	57.6
Approach		706	2.0	743	2.0	0.542	10.6	LOS B	3.8	27.4	0.85	0.98	1.02	55.9
NorthEast: SH1														
24	L2	114	2.0	120	2.0	0.853	26.8	LOS C	16.4	119.0	1.00	1.39	2.08	46.0
25	T1	635	5.0	668	5.0	0.853	23.8	LOS C	16.4	119.0	0.97	1.29	1.83	48.9
26	R2	61	2.0	64	2.0	0.421	19.4	LOS B	3.0	21.4	0.87	0.97	0.97	50.6
Approach		810	4.4	853	4.4	0.853	23.9	LOS C	16.4	119.0	0.97	1.28	1.80	48.6
NorthWest: Bob Robertson Dr														
27	L2	105	2.0	111	2.0	0.287	10.2	LOS B	1.6	11.1	0.84	0.89	0.84	49.4
28	T1	255	2.0	268	2.0	0.645	11.4	LOS B	6.0	42.9	0.97	1.14	1.34	48.6
29	R2	129	2.0	136	2.0	0.645	18.5	LOS B	6.0	42.9	0.97	1.14	1.34	48.4
Approach		489	2.0	515	2.0	0.645	13.0	LOS B	6.0	42.9	0.94	1.08	1.23	48.7
SouthWest: SH1														
30	L2	146	2.0	154	2.0	0.434	7.7	LOS A	3.0	21.9	0.73	0.74	0.73	52.4
31	T1	556	5.0	585	5.0	0.733	9.4	LOS A	9.9	71.4	0.86	0.86	1.01	58.4
32	R2	353	2.0	372	2.0	0.733	16.7	LOS B	9.9	71.4	0.92	0.91	1.14	56.8
Approach		1055	3.6	1111	3.6	0.733	11.6	LOS B	9.9	71.4	0.86	0.86	1.01	57.0
All Vehicles		3060	3.2	3221	3.2	0.853	14.9	LOS B	16.4	119.0	0.90	1.04	1.26	52.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [SH1 / Pegasus Blvd Rbt Sunday Post Development 2030 - CB Check (Site Folder: Makete Development)]

SH1 / Pegasus Blvd Rbt
Site Category: Future
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
SouthEast: Pegasus Blvd														
21	L2	404	2.0	425	2.0	0.581	10.3	LOS B	4.6	32.9	0.90	1.02	1.11	57.5
22	T1	233	2.0	245	2.0	0.603	12.1	LOS B	4.5	32.3	0.90	1.03	1.17	50.3
23	R2	96	2.0	101	2.0	0.603	18.9	LOS B	4.5	32.3	0.90	1.03	1.17	56.2
Approach		733	2.0	772	2.0	0.603	12.0	LOS B	4.6	32.9	0.90	1.02	1.13	54.8
NorthEast: SH1														
24	L2	114	2.0	120	2.0	0.975	56.7	LOS E	33.2	241.1	1.00	1.95	3.63	33.7
25	T1	700	5.0	737	5.0	0.975	48.0	LOS D	33.2	241.1	0.98	1.75	3.09	37.2
26	R2	73	2.0	77	2.0	0.481	21.4	LOS C	3.7	26.6	0.90	1.02	1.09	49.1
Approach		887	4.4	934	4.4	0.975	46.9	LOS D	33.2	241.1	0.98	1.71	2.99	37.5
NorthWest: Bob Robertson Dr														
27	L2	117	2.0	123	2.0	0.337	11.1	LOS B	1.9	13.8	0.87	0.93	0.92	48.8
28	T1	261	2.0	275	2.0	0.715	14.7	LOS B	7.3	52.2	1.00	1.21	1.51	46.6
29	R2	129	2.0	136	2.0	0.715	22.1	LOS C	7.3	52.2	1.00	1.21	1.51	46.4
Approach		507	2.0	534	2.0	0.715	15.8	LOS B	7.3	52.2	0.97	1.15	1.37	47.0
SouthWest: SH1														
30	L2	146	2.0	154	2.0	0.472	8.4	LOS A	3.5	25.5	0.77	0.79	0.80	52.1
31	T1	593	5.0	624	5.0	0.797	11.1	LOS B	12.9	92.7	0.92	0.93	1.16	56.9
32	R2	384	2.0	404	2.0	0.797	19.0	LOS B	12.9	92.7	0.99	1.00	1.34	54.9
Approach		1123	3.6	1182	3.6	0.797	13.4	LOS B	12.9	92.7	0.92	0.94	1.18	55.6
All Vehicles		3250	3.2	3421	3.2	0.975	22.6	LOS C	33.2	241.1	0.94	1.20	1.69	47.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

USER REPORT FOR SITE

All Movement Classes

Project: Makete Access Intersection

Template: Movement Summary Report

Site: 101 [Makete Access Intersection 3 - Weekday (Site Folder: General)]

Makete Access Intersection Priority Controlled Intersection
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Pegasus blvd east														
5	T1	593	2.0	624	2.0	0.324	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	69.8
6	R2	5	0.0	5	0.0	0.014	14.0	LOS B	0.0	0.3	0.73	0.84	0.73	43.1
Approach		598	2.0	629	2.0	0.324	0.2	NA	0.0	0.3	0.01	0.01	0.01	69.6
North: Makete access 3														
7	L2	12	0.0	13	0.0	0.040	9.6	LOS A	0.1	0.9	0.75	0.75	0.75	40.9
9	R2	25	0.0	26	0.0	0.232	34.1	LOS D	0.7	4.8	0.93	0.98	0.99	27.3
Approach		37	0.0	39	0.0	0.232	26.1	LOS D	0.7	4.8	0.87	0.90	0.91	30.7
West: Pegasus blvd west														
10	L2	42	0.0	44	0.0	0.477	6.5	LOS A	0.0	0.0	0.00	0.03	0.00	34.9
11	T1	829	2.0	873	2.0	0.477	0.2	LOS A	0.0	0.0	0.00	0.03	0.00	69.2
Approach		871	1.9	917	1.9	0.477	0.5	NA	0.0	0.0	0.00	0.03	0.00	67.4
All Vehicles		1506	1.9	1585	1.9	0.477	1.0	NA	0.7	4.8	0.02	0.04	0.02	67.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Makete Access Intersection 2 - Weekday (Site Folder: General)]

Makete Access 2 Intersection Priority Controlled Intersection
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Main North Road														
2	T1	827	5.0	871	5.0	0.463	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	69.6
3	R2	53	0.0	56	0.0	0.114	11.7	LOS B	0.4	2.7	0.62	0.86	0.62	44.7
Approach		880	4.7	926	4.7	0.463	0.9	NA	0.4	2.7	0.04	0.05	0.04	68.3
East: Makete Access 2														
4	L2	29	0.0	31	0.0	0.097	8.8	LOS A	0.3	2.0	0.67	0.67	0.67	41.6
Approach		29	0.0	31	0.0	0.097	8.8	LOS A	0.3	2.0	0.67	0.67	0.67	41.6
North: Main North Road														
7	L2	5	0.0	5	0.0	0.347	6.5	LOS A	0.0	0.0	0.00	0.01	0.00	35.1
8	T1	617	5.0	649	5.0	0.347	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	69.7
Approach		622	5.0	655	5.0	0.347	0.1	NA	0.0	0.0	0.00	0.01	0.00	69.4
All Vehicles		1531	4.7	1612	4.7	0.463	0.7	NA	0.4	2.7	0.03	0.04	0.03	68.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Makete Access Intersection 2 - Sunday (Site Folder: General)]

Makete Access 2 Intersection Priority Controlled Intersection
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Main North Road														
2	T1	756	5.0	796	5.0	0.425	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	69.6
3	R2	49	0.0	52	0.0	0.170	16.8	LOS C	0.5	3.8	0.78	0.92	0.78	40.2
Approach		805	4.7	847	4.7	0.425	1.1	NA	0.5	3.8	0.05	0.06	0.05	67.9
East: Makete Access 2														
4	L2	76	0.0	80	0.0	0.452	24.0	LOS C	1.6	11.0	0.88	1.06	1.18	31.7
Approach		76	0.0	80	0.0	0.452	24.0	LOS C	1.6	11.0	0.88	1.06	1.18	31.7
North: Main North Road														
7	L2	6	0.0	6	0.0	0.462	6.5	LOS A	0.0	0.0	0.00	0.00	0.00	35.0
8	T1	823	5.0	866	5.0	0.462	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	69.5
Approach		829	5.0	873	5.0	0.462	0.2	NA	0.0	0.0	0.00	0.00	0.00	69.3
All Vehicles		1710	4.6	1800	4.6	0.462	1.7	NA	1.6	11.0	0.06	0.08	0.07	66.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Makete Access Intersection 3 - Weekday (Site Folder: General)]

Makete Access Intersection Priority Controlled Intersection
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Pegasus blvd east														
5	T1	593	2.0	624	2.0	0.324	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	69.8
6	R2	5	0.0	5	0.0	0.014	14.0	LOS B	0.0	0.3	0.73	0.84	0.73	43.1
Approach		598	2.0	629	2.0	0.324	0.2	NA	0.0	0.3	0.01	0.01	0.01	69.6
North: Makete access 3														
7	L2	12	0.0	13	0.0	0.040	9.6	LOS A	0.1	0.9	0.75	0.75	0.75	40.9
9	R2	25	0.0	26	0.0	0.232	34.1	LOS D	0.7	4.8	0.93	0.98	0.99	27.3
Approach		37	0.0	39	0.0	0.232	26.1	LOS D	0.7	4.8	0.87	0.90	0.91	30.7
West: Pegasus blvd west														
10	L2	42	0.0	44	0.0	0.477	6.5	LOS A	0.0	0.0	0.00	0.03	0.00	34.9
11	T1	829	2.0	873	2.0	0.477	0.2	LOS A	0.0	0.0	0.00	0.03	0.00	69.2
Approach		871	1.9	917	1.9	0.477	0.5	NA	0.0	0.0	0.00	0.03	0.00	67.4
All Vehicles		1506	1.9	1585	1.9	0.477	1.0	NA	0.7	4.8	0.02	0.04	0.02	67.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Makete Access Intersection 3 - Sunday (Site Folder: General)]

Makete Access 3 Intersection Priority Controlled Intersection
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Pegasus blvd east														
5	T1	706	2.0	728	2.0	0.378	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	69.7
6	R2	6	0.0	6	0.0	0.012	11.6	LOS B	0.0	0.3	0.65	0.77	0.65	29.0
Approach		712	2.0	734	2.0	0.378	0.2	NA	0.0	0.3	0.01	0.01	0.01	68.9
North: Makete access 3														
7	L2	6	0.0	6	0.0	0.015	6.4	LOS A	0.0	0.3	0.66	0.59	0.66	28.7
9	R2	27	0.0	28	0.0	0.210	28.7	LOS D	0.6	4.4	0.91	0.95	0.96	24.3
Approach		33	0.0	34	0.0	0.210	24.7	LOS C	0.6	4.4	0.86	0.89	0.91	25.0
West: Pegasus blvd west														
10	L2	37	0.0	38	0.0	0.407	6.5	LOS A	0.0	0.0	0.00	0.03	0.00	66.0
11	T1	722	2.0	744	2.0	0.407	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	69.3
Approach		759	1.9	782	1.9	0.407	0.4	NA	0.0	0.0	0.00	0.03	0.00	69.1
All Vehicles		1504	1.9	1551	1.9	0.407	0.9	NA	0.6	4.4	0.02	0.04	0.02	66.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Auckland
Level 1/70 Shortland Street
PO Box 613, Shortland Street
Auckland 1140
Aotearoa New Zealand

Wellington
Level 1/119-123 Featherston Street
Wellington 6011
Aotearoa New Zealand

Christchurch
Level 1/137 Victoria Street
PO Box 36446, Merivale
Christchurch 8146
Aotearoa New Zealand

hello@abley.com
+64 3 377 4703
abley.com

Appendix E:

Infrastructure Servicing Report

Infrastructure Servicing Report

Pegasus Mākete

Prepared for Dexlin Investments Limited

503498

Infrastructure Servicing Report

Pegasus Mākete

Prepared for Dexlin Investments Limited

503498

Quality Control Certificate

Eliot Sinclair & Partners Limited

eliotsinclair.co.nz

Action	Name	Signature	Date
Prepared by:	Jenny Bull 3 Waters Engineer BE(Hons) Civil CMEngNZ CPEng jenny.bull@eliotsinclair.co.nz		20 May 2022
Reviewed by:	Cameron Mars 3 Waters Engineer BE(Hons) Environ CMEngNZ CPEng cameron.mars@eliotsinclair.co.nz		01 June 2022
Directed and approved for release by:	Jenny Bull 3 Waters Engineer BE(Hons) Civil CMEngNZ CPEng jenny.bull@eliotsinclair.co.nz		03 June 2022
Status:	Final		
Release date:	15 November 2022		
Reference no:	503498		
Distributed to:	Dexlin Investments Limited		

Contents

1. Introduction 1
2. Site Characteristics 1
   - 2.1. Existing Site 1
   - 2.2. Topography 2
   - 2.3. Soils 2
   - 2.4. Groundwater 2
3. Water Supply 3
4. Stormwater 3
   - 4.1. Proposed Stormwater System 3
   - 4.2. Flooding 9
5. Wastewater 10
6. Utility Services 12
   - 6.1. Power 12
   - 6.2. Gas 12
   - 6.3. Telecommunications 12
7. Conclusion 12

Disclaimer 13

Appendix A. Indicative Masterplan

Appendix B. Existing Waters and Utilities Infrastructure

Appendix C. Correspondence with WDC

Appendix D. Concept Stormwater Network Masterplan

1. Introduction

Eliot Sinclair (ES) has been engaged by Dexlin Investments Limited to carry out an infrastructure services assessment in support of a proposed plan change submission for Pegasus Mākete, 1250 Main North Road, Pegasus ('the Site'). The plan change submission is for the Special Purpose Zone (Pegasus Resort) to be extended to encompass the site at 1250 Main North Road (and several small adjoining areas of land). The Site is approximately 3.044 ha and the proposed development will be an agricultural tourism centre surrounded by a medium density residential areas.

Appendix A provides the indicative masterplan.

The purpose of this report is to addresses the stormwater, wastewater, water supply, power, gas and telecommunications capacities and requirements to service the development. Suitable stormwater options have been identified, that can then be expanded upon the detailed design phase.

2. Site Characteristics

2.1. Existing Site

The Site is at 1250 Main North Road, Pegasus (Part Rural Section 864) and includes several small adjoining areas of land (part of Lots 97, 208 and 700 DP 417391 and a strip of land to the north of the site which is currently a conservation purposes Drain Reserve (Red Map 58).

The Site comprises of approximately 3.044 ha and is currently zoned 'Rural' at 1250 Main North Road and 'Mapleham Rural 4b' for the small adjoining areas of land.

There is an existing dwelling on the Site and Tarakani Stream which traverses the Site flowing a west to east direction.

A site location plan is shown in Figure 1 below.

Figure 1: Aerial imagery illustrating extents of the site for the proposed plan change.

2.2. Topography

Survey data for the Site is not available, however LiDAR (2014) data sourced from *Land Information New Zealand (LINZ)* indicates the topography falls towards the northeast corner.

Figure 2 shows the LiDAR topography. Most of the Site is at an elevation of approximately 9m reduced level (RL) and lower elevations of 6-8 m RL at the northeast corner.

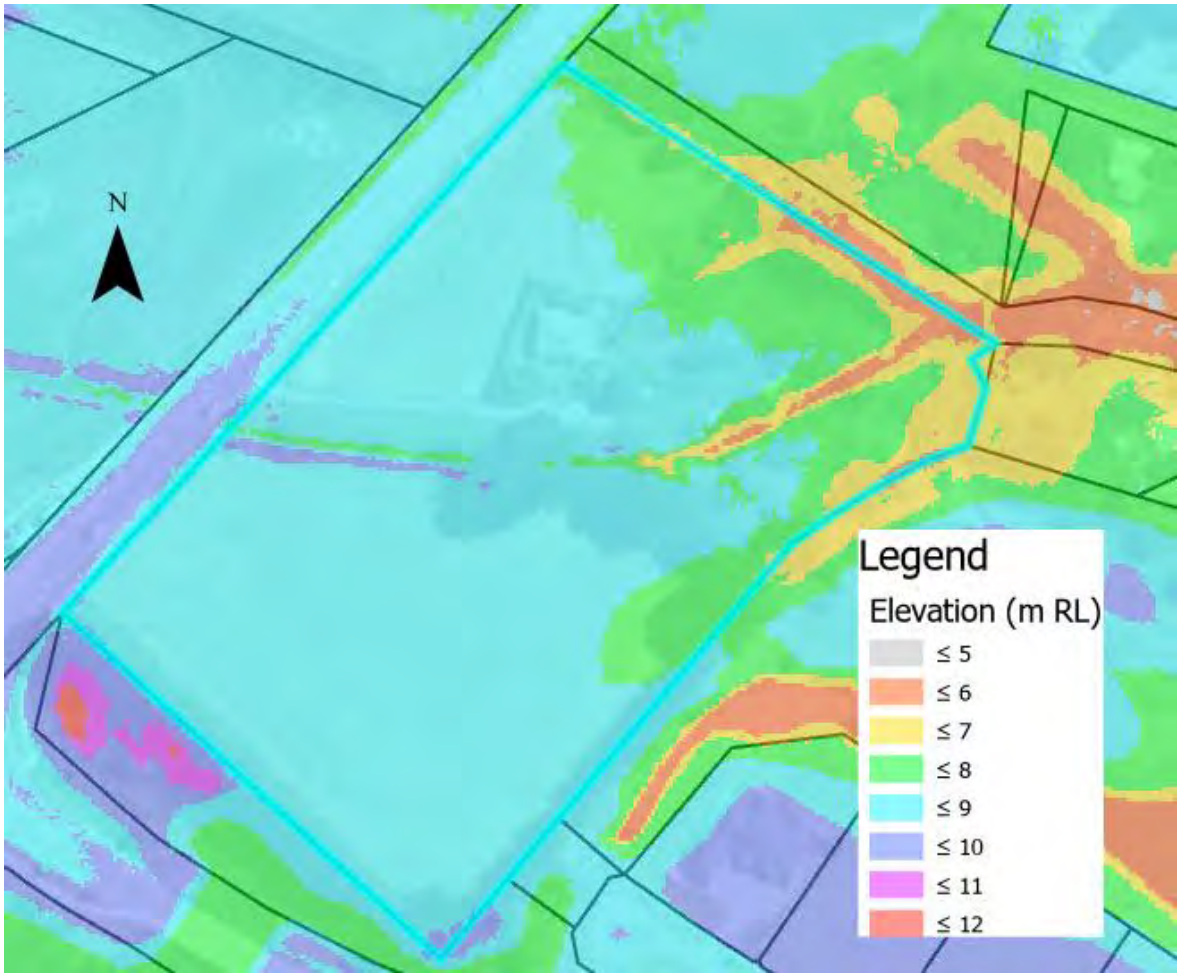


Figure 2: Site Topography *(LINZ, 2014)*

2.3. Soils

Site specific geotechnical investigations have not been undertaken on-site. However, based on the information available on *New Zealand Geotechnical Database (NZGD)*, there is a test pit (TP_147434) located 80m west of the Site undertaken by Tonkin & Taylor in 2014 for the Ravenswood Subdivision. The results from this test pit indicate the underlying soils may comprise of a silty topsoil to 0.2m over a mixture of sands and silts up to 3.4m, at the extent of the test pit.

2.4. Groundwater

The results from test pit TP_147434 indicate groundwater is estimated to be at depths between 1.4 to 2.4m below ground level (bgl).

Canterbury Maps (2022), indicates the Site is located over the Coastal Confined Gravel Aquifer System. There are no recorded springs within the vicinity (Canterbury Maps, 2017).

3. Water Supply

There is an existing 355OD PE water main along Pegasus Boulevard. Waimakariri District Council (WDC) has confirmed the existing water supply infrastructure has capacity to cater for the proposed development.

Appendix B provides a plan of the existing water supply infrastructure.

Appendix C provides the WDC capacity confirmation correspondence.

The calculated water supply demands from the development are shown in Table 1. These flows were provided to WDC to confirm the existing water supply infrastructure has sufficient capacity to cater for the residential, commercial and firefighting flows from the proposed development.

Table 1: Water Supply Demand of the Proposed Development

	Demand Flow (L/s)
Residential peak demand	4
Commercial peak demand	1.65
Firefighting (assumed category F3)	50

The proposed water supply network will need to be designed in accordance with the WDC Engineering Code of Practice (ECoP) and SNZ PAS 4509:2008 *New Zealand Fire Service Fire Fighting Water Supplies Code of Practice*. WDC will need to advise where the point of supply needs to be.

4. Stormwater

4.1. Proposed Stormwater System

The proposed stormwater network assumes that there will be no stormwater infrastructure vested in Council.

At the time of this report was written, WDC had not confirmed their stormwater requirements. The proposed stormwater network is based on the following assumptions:

- The Site will be required to provide attenuation storage to ensure that post-development stormwater runoff generated from impervious and pervious surfaces does not exceed the pre-development rate for all storm events up to and including the 2% AEP (1 in 50 year) critical duration rainfall.
- Stormwater runoff generated from hardstand areas subject to vehicle traffic (e.g. car parks and roads) or other forms of contamination will require water quality treatment prior discharging into Taranaki Stream via the attenuation system.
- Roof water is generally considered clean and does not require water quality treatment

There are several options for the stormwater system configuration and a range of separate devices may be required to meet the water quality (via treatment) and quantity (via attenuation) objectives. The suitability of the of the stormwater devices will depend on the site constraints, as follows:

- Topography – the Site generally falls towards the northeast corner.
- Site layout – the majority of the impervious areas requiring treatment and attenuation are located south of Taranaki Stream.

- Available area – Taranaki Stream runs through the middle of the Site which limits the amount available area for stormwater management.
- Groundwater – high ground water level.
- Development Constraint – the proposed tourism activities will require landscape and natural character values to provide for positive urban design outcomes.

Figure 3 shows the following catchment areas:

- Catchment A – residential lots and roading along the southwest and southeast boundary, market buildings, village buildings and footpaths south of Taranaki Stream.
- Catchment B – carparks and roading along the northwest boundary
- Catchment C – residential lots and roading along the northeast boundary and footpaths north of the Taranaki Stream.

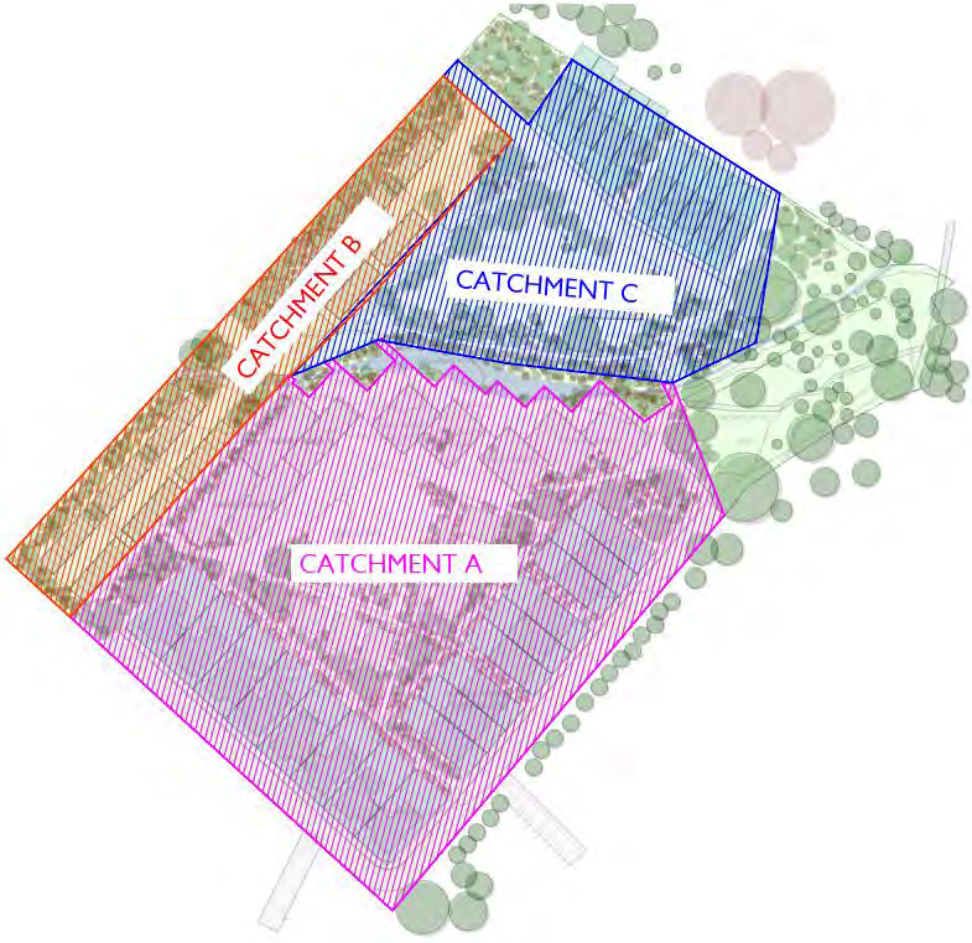


Figure 3: Catchment Areas

The different stormwater device options for Catchments A, B and C are discussed in the following sections.

4.1.1. Catchment A

Option 1 Stormwater Treatment Train

The residential lots will require private on-site rainwater storage tanks to provide stormwater attenuation. The captured roof water will be slowly released via a restricted orifice into a downstream

swale or road (depends if the lots are filled and graded towards the road which requires a reasonable amount of earthworks) and discharge into Taranaki Stream via the Wetland and Detention system.

Stormwater runoff generated by the road, market buildings, village buildings and footpaths will discharge into a grassed dry basin (known as a first flush basin). The basin will have sufficient capacity to detain rainfall runoff generated during the first 25 mm rainfall depth (known as the first flush of rainfall). The purpose of the first flush basin is to provide primary treatment (e.g. removal of litter and larger sediment) and to store the runoff so it can be discharged at a controlled rate to a downstream wetland.

During periods when the first flush basin is at maximum capacity, the stored water will be released over a 4-day period to a downstream wetland. The wetland provides further treatment by a variety of mechanisms including settling, filtration, biological degradation, microbial uptake, adsorption, volatilisation and plant uptake. The treated stormwater from the wetland will then discharge into Taranaki Stream.

The stormwater runoff generated during rainfall exceeding the first 25mm rainfall depth will be diverted around the first flush basin (via a splitter box) and will discharged into Detention Basin A. Detention Basin A will also capture the stormwater runoff from Catchment C and will discharge into Taranaki Stream via a controlled outlet.

The footprint required for the first flush basin is approximately 365 m^2 and 2500 m^2 for the wetland. The total footprint required for Detention Basin A is 905 m^2, of this 730 m^2 of the total footprint can be attributed to runoff from Catchment A (split pro rata). Appendix D provides a sketch of the proposed wetland and detention storage facility.

Figure 4 shows the stormwater treatment train for Option 1.

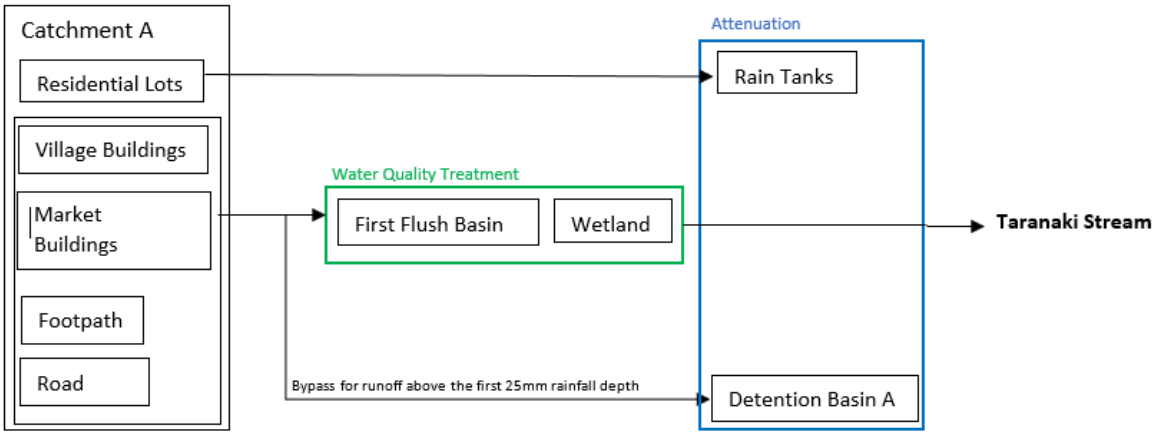


Figure 4: Option 1 Stormwater System

Option 2 Stormwater Treatment Train

Option 2 is similar to Option 1 in which that the residential lots require private on-site storage tanks prior to discharging to Taranaki Stream. The road stormwater runoff will discharge to a wetland and detention storage facility.

However, Option 2 allows alternative stormwater treatment devices to treat and attenuate stormwater runoff from the village buildings, market buildings and footpath. These devices can be at-source stormwater management systems such as green roofs and permeable pavement, and also the use of rainwater storage tanks.

Green roofs capture atmospheric deposition of contaminants, promotes evapotranspiration, cools stormwater runoff, and slows down rainfall response times, thereby reducing peak flow rates and runoff volumes.

Permeable pavements can be designed to improve water quality through filtration and sedimentation and provide below-ground storage for the water quality volume within base course layers.

Rainwater storage tanks provides detention to achieve peak flow attenuation of roof runoff, settle-out the roof-derived sediment in the tank and allows stored water to be re-used.

The use of these other stormwater devices reduces the total footprint required for the wetland facility and also provides aesthetic and environmental benefits which provide for positive urban design outcomes associated with the proposed tourism activities. However, the use of multiple devices may result in a more costly solution due the additional supply and construction costs and on-going maintenance costs.

Figure 5 shows the stormwater treatment train for Option 2.

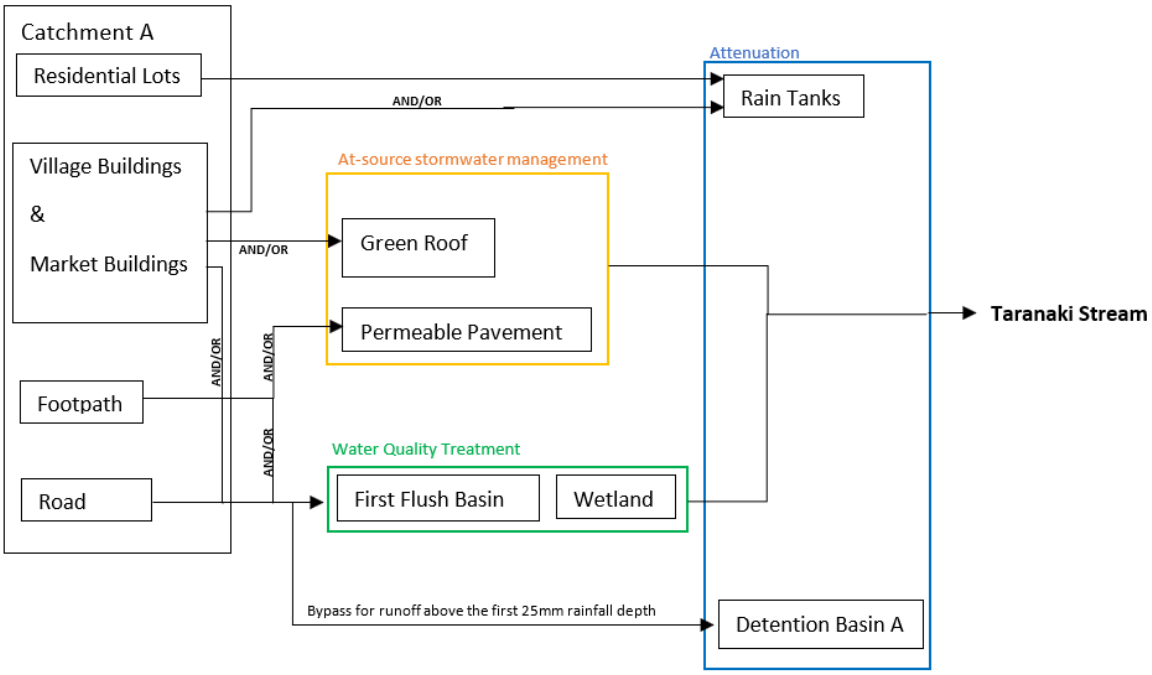


Figure 5: Option 2 Stormwater Treatment Train

Option 3 Stormwater Treatment Train

Option 3 stormwater treatment train uses a range of different stormwater treatment devices as proposed in Option 2; however "off the shelf" proprietary stormwater treatment devices would be used instead of a wetland. Proprietary stormwater treatment devices can include both green infrastructure solutions (above ground natural systems or engineered systems that mimic natural processes) and grey infrastructure solutions (filter systems located in below ground concrete chambers).

Stormwater runoff generated by the upstream catchment during the first 10 mm/hour rainfall intensity discharges directly into the proprietary stormwater treatment device (e.g. there is no need for a first flush basin); rainfall runoff generated during rainfall intensities exceeding 10 mm/hour bypasses the

treatment device and will discharge directly to a grassed detention basin, prior to discharging to Taranqki Stream.

The main advantage of proprietary treatment devices is the reduction is land area required for treatment (e.g. they may only take up a 10 to 20 m^2 area), however, they may require on-going maintenance.

Figure 6 shows the stormwater treatment train for Option 3.

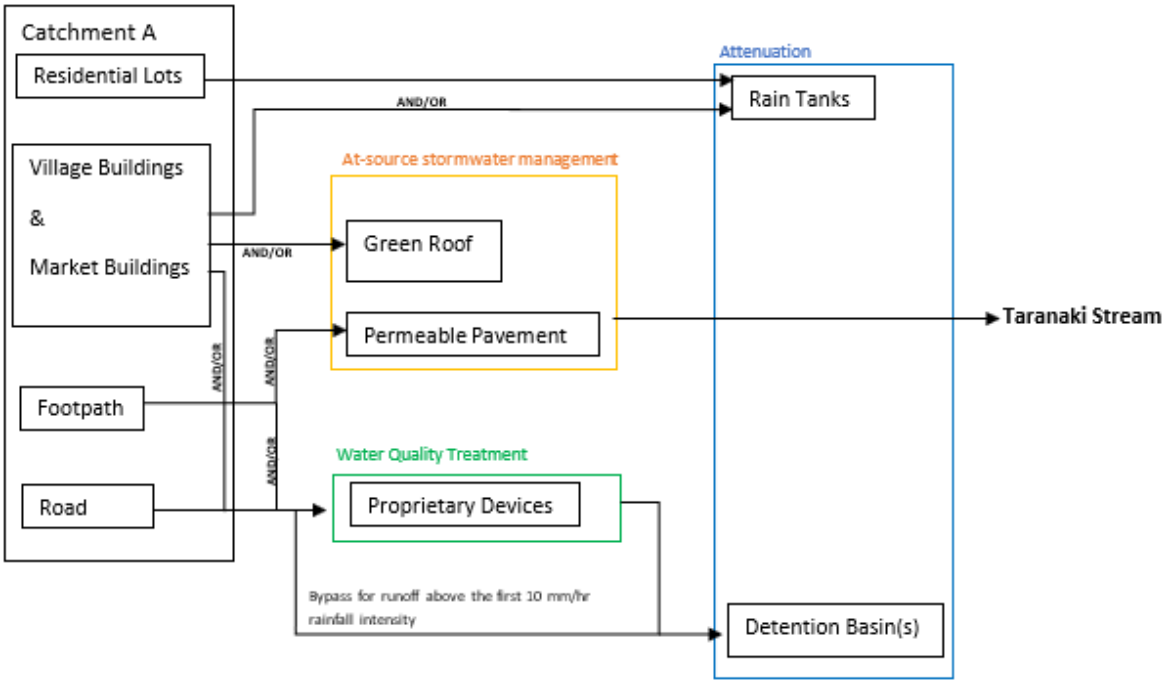


Figure 6: Option 3 Stormwater Treatment Train

4.1.2. Catchment B

Stormwater runoff generated by the road and car park will require water quality treatment prior to discharging to into Detention Basin B from where it will be discharged to the Taranaki Stream via a restricted orifice.

There are varying treatment options such as (but not limited to) swales and rain gardens and the use of permeable pavement for carparks as an at-source stormwater management.

Swales simultaneously convey and treat stormwater runoff. Stormwater is conveyed by surface flow to the swale and water quality treatment is achieved by reduction in flow velocities across a vegetated surface providing for filtering of contaminants and opportunities for infiltration to ground. The swale can also convey the stormwater for all storm events up to and including the 2% AEP (1 in 50 year) critical duration rainfall into the Detention Basin B for stormwater attenuation.

Raingarden provides water quality treatment by filtration in the soil medium together with bioretention provided by the plants and organic/mulch layer. After infiltrating through the soil medium, water is discharged either by infiltration to underlying soil, or is collected in a pipe and discharged to a reticulated stormwater system.

Permeable pavement was discussed briefly under Option 2 in Section 4.1.1.

The treatment method utilised must take into consideration land area availability and the ease of ongoing operations and maintenance. The use of swales is considered the simplest and most cost-effective solution.

The total footprint required for a Detention Basin B is 300 m^2. Appendix D provides a sketch of the swale and detention storage facility.

Figure 7 shows the stormwater treatment train options for Catchment B.

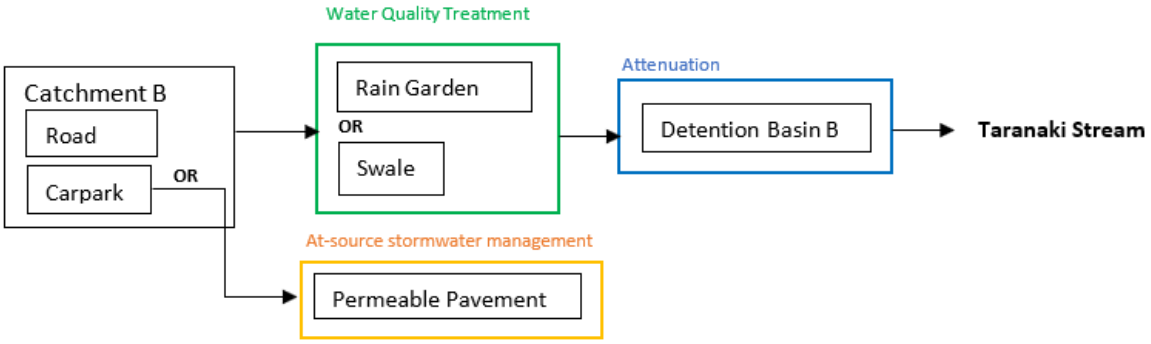


Figure 7: Catchment B Stormwater Treatment Train Options

4.1.3. Catchment C

The residential lots will require private on-site rain tanks to provide stormwater attenuation. The captured roof water will be slowly released into the downstream swale along the north eastern boundary via a restricted orifice, prior to discharging into Taranaki Stream via Detention Basin A.

Stormwater runoff generated by the road will require treatment via a swale or rain garden prior to discharging to into Detention Basin A, prior to discharging to the Taranaki Stream via a restricted orifice.

Based on the current road layout, a swale is considered the most practical and cost-effective solution for water quality treatment.

The total footprint required for Detention Basin A is 905 m^2 with 175 m^2 required for Catchment C (split pro rata). Appendix D provides a sketch of the swale and detention storage facility.

Figure 8 shows the stormwater treatment train options for Catchment C.

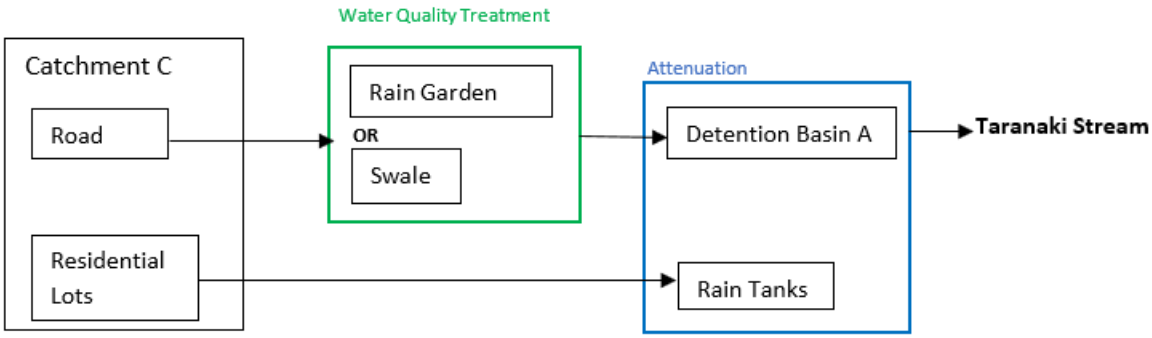


Figure 8: Catchment C Stormwater Treatment Train Options

4.1.4. Recommendation

The use of above ground natural systems or engineered systems that mimic natural processes such as wetlands, basins and swales to capture and treat stormwater is considered best practice i.e. Option 1 stormwater treatment train to treat stormwater runoff from Catchment A and the use of swales to convey and treat stormwater runoff from Catchments B and C.

These recommended systems are designed for a range of values including ecological, recreational, cultural, landscape, heritage and drainage values. Maintenance is often minimised with these naturally functioning systems and therefore is most cost effective over their life cycle. However, these systems require a large footprint and may not agree with the architects or urban designers' development proposals. Therefore, consultation with all parties is required to come up with a stormwater treatment system which meets the needs of all parties involved.

Appendix D shows the proposed concept stormwater network masterplan with the maximum required footprint without impeding on revenue-generating land.

4.2. Flooding

The terms Average Recurrence Interval (ARI) describes the average time period between floods of a certain size i.e. a 200-year ARI flow will occur on average once every 200 years. Alternatively, annual exceedance probability (AEP) is the probability of a certain size of flood flow occurring in a single year i.e. a 0.5 per cent AEP flood flow has a 0.5 per cent, or 1-in-200 chance of occurring in any one year.

4.2.1. 200 Year ARI Storm (0.5% AEP Storm)

The *Waimakariri District Natural Hazards Interactive Viewer (2022)* indicate the Site is subject to a low to medium flood hazard along the north of the Site. Taranaki Stream is shown as a high hazard flood zone; however this is due to the stream depth.

Figure 9 shows the flood hazard areas; the green areas are classified as low risk, blue areas as medium risk and red areas as high risk.

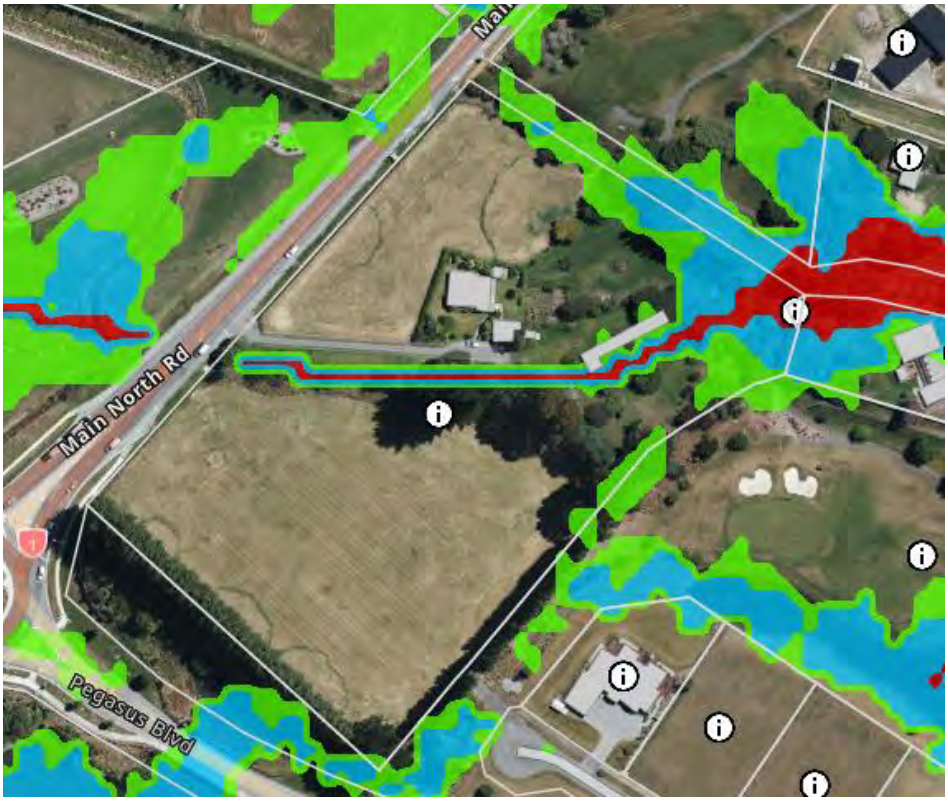


Figure 9: 200 Year Flood Hazard Map *(WDC, 2022)*

4.2.2. 50 Year ARI Storm (2% AEP Storm)

The *Waimakariri District Natural Hazards Interactive Viewer (2022)* do not provide the 50-year ARI flood effects. However, it is a reasonable to assume that the less extreme storm event will result in shallower flood depths.

The 50-year flood hazard maps will need to be requested from WDC or Environment Canterbury (ECan). It is recommended that building platforms be kept out of any flood zones where possible.

4.2.3. Finished Floor Level Requirement

In accordance with the *WDC Engineering Code of Practice*, the minimum floor level must be as specified in the *WDC District Plan Chapter 27: Natural Hazards* otherwise as a minimum of 150 mm above the ground level as specified in *Building Code E1/AS1*.

It should be noted WDC has proposed a new District Plan, which is not yet completed, therefore, the minimum floor level requirement will be subject to any later amendment of the *WDC Engineering Code of Practice*.

It is recommended that consultation directly with WDC is required to obtain the minimum flood level requirement for the Site.

5. Wastewater

There is an existing 280OD PE wastewater pipe along Pegasus Boulevard, a 63OD PE wastewater pipe along Mapleham Drive and a 63OD PE wastewater pipe Burntwood Lane. WDC has confirmed the existing surrounding wastewater infrastructure has capacity to cater for the proposed development.

Appendix B provides a plan of the existing wastewater infrastructure,

Appendix C provides the confirmation of capacity correspondence from WDC.

The calculated wastewater flows from the development are shown in Table 2. These flows were provided to WDC to confirm the existing wastewater infrastructure has sufficient capacity to cater the wastewater discharge from the proposed development.

Table 2 Wastewater Flows from Proposed Devolopment

	Combined residential and commercial flows (L/s)
Average Dry Weather Flow (ADWF)	0.64
Peak Dry Weather Flow (PDWF)	1.60
Peak Wet Weather Flow (PWWF)	4.77

The existing WDC wastewater infrastructure is a pressurised system, therefore the proposed development will be serviced via a local pressure sewer (LPS) system. WDC will need to advise where the discharge point needs to be.

6. Utility Services

6.1. Power

There is an existing 11-66 kV underground power main along Pegasus Boulevard. Mainpower has provided a capacity letter confirming that their high voltage network in the vicinity of the Site has the capacity to supply the proposed development.

Appendix B provides a plan of the existing Mainpower network.

Appendix C provides the Mainpower capacity letter.

6.2. Gas

There is an existing 200mm PE LPG main along Pegasus Boulevard. Vector has confirmed that there is capacity within the existing gas network in the area to service the proposed development.

Appendix B provides a plan of the existing Vector network.

Appendix C provides the correspondence with Vector.

6.3. Telecommunications

There are three options to provide telecommunications to the Site, which are discussed in the following sections.

6.3.1. Enable

There is an existing cable along Pegasus Boulevard for connection, however, a plan of this is not available. Enable has confirmed that they can service the proposed development. A network extension is required to install one chamber on Pegasus Boulevard and lay a 1x7Way duct in a 75m long trench into the proposed development.

Appendix C provides the correspondence with Enable.

6.3.2. Chorus

There is an existing cable along Main North Road. Chorus has confirmed in their online portal that they *"have infrastructure in the general land area that you are proposing to develop. Chorus will be able to extend our network to provide connection availability."*

Appendix B provides a plan of the existing Chorus network.

6.3.3. Vodafone

There is an existing Vodafone network that surrounds the Site and it appears that Vodafone has a proposed connection into the Site via Burntwood Lane. Vodafone has not responded at the time of this report was written, however, given that there is a proposed connection drawn on the existing Vodafone network plan, it is assumed that this Site can be serviced.

Appendix B provides a plan of the existing Vodafone network.

7. Conclusion

The Site can be serviced for water supply, stormwater, wastewater and utility services subject to preliminary and detailed design in conjunction with appropriate Council consents being obtained. On this basis the submission for rezoning the land for Special Purpose Zone (Pegasus Resort) is able to be supported in respect of infrastructure and servicing capacity.

Disclaimer

This report has been prepared by Eliot Sinclair & Partners Limited ("Eliot Sinclair") only for the intended purpose technical supporting documentation for support of the proposed plan change submission.

The report is based on:

- Submission to the Proposed Waimakariri District Plan 2021 report.
- Information from Waimakariri District Council (WDC).
- Information from the Utility Service Providers.
- Canterbury Maps, 2022.
- New Zealand Geotechnical Database (NZGD), 2022.
- BeforeUDig, 2022.
- Waimakariri District Natural Hazards Interactive Viewer, 2022.

Where data supplied by Dexlin Investments Limited or other external sources, including previous site investigation reports, have been relied upon, it has been assumed that the information is correct unless otherwise stated. No responsibility is accepted by Eliot Sinclair for incomplete or inaccurate data supplied by other parties.

Whilst every care has been taken during our investigation and interpretation of the site servicing requirements to ensure that the conclusions drawn, and the opinions and recommendations expressed are correct at the time of reporting, Eliot Sinclair has not performed an assessment of all possible conditions or circumstances that may exist at the site. Variations in conditions may occur between investigatory locations and there may be conditions such as soil variations, groundwater variations or capacity constraints that were not detected by the scope of the investigation that was carried out or have been covered over or obscured over time. Eliot Sinclair does not provide any warranty, either express or implied, that all conditions will conform exactly to the assessments contained in this report.

The exposure of conditions or materials that vary from those described in this report may require a review of our recommendations. Eliot Sinclair should be contacted to confirm the validity of this report should any of these occur.

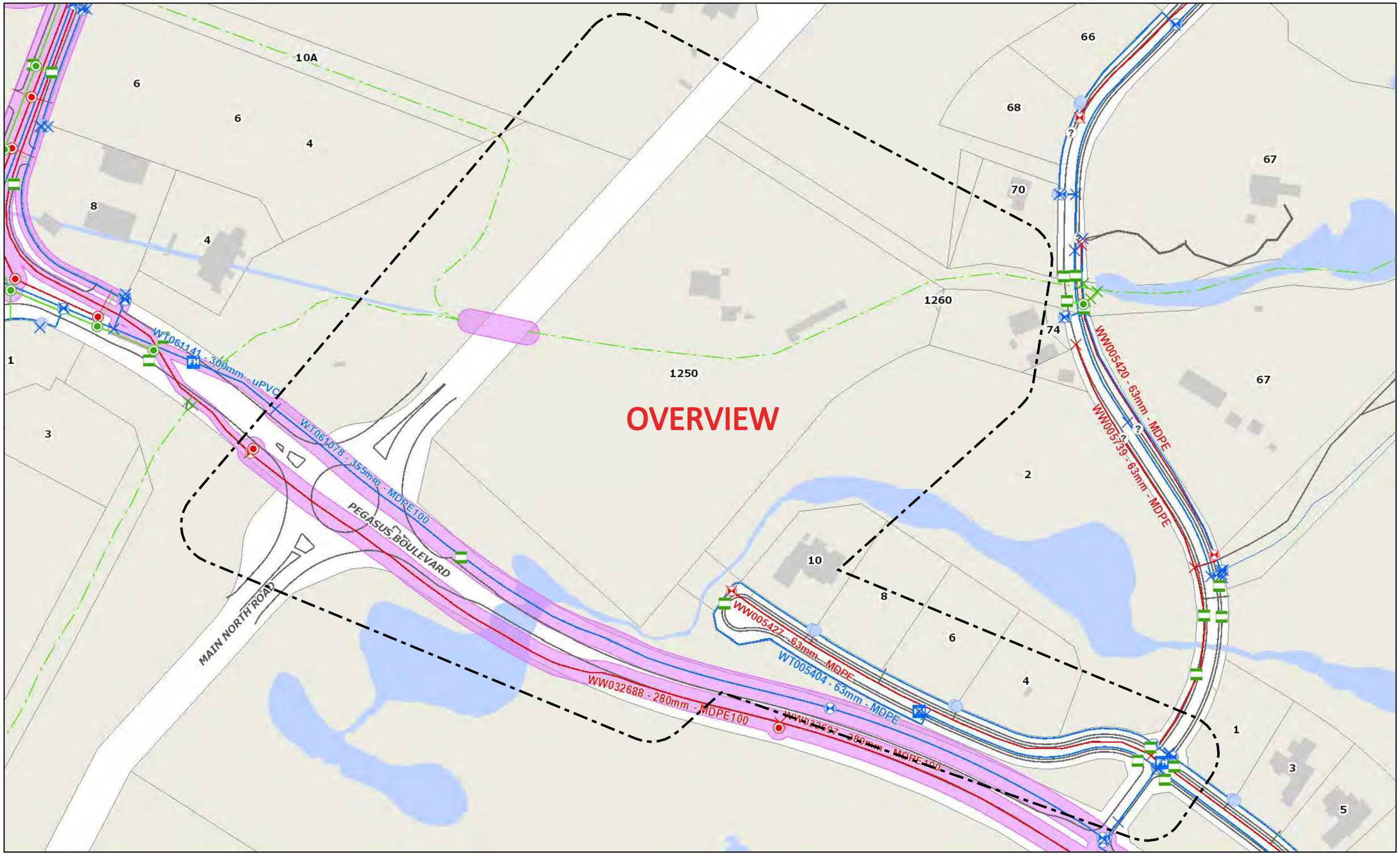
This report has been prepared for the benefit of Dexlin Investments Limited for the purposes as stated above. No liability is accepted by Eliot Sinclair or any of their employees with respect to the use of this report, in whole or in part, for any other purpose or by any other party.

Appendix A. Indicative Masterplan

Proposed Site Plan

Appendix B. Existing Waters and Utilities Infrastructure

OVERVIEW



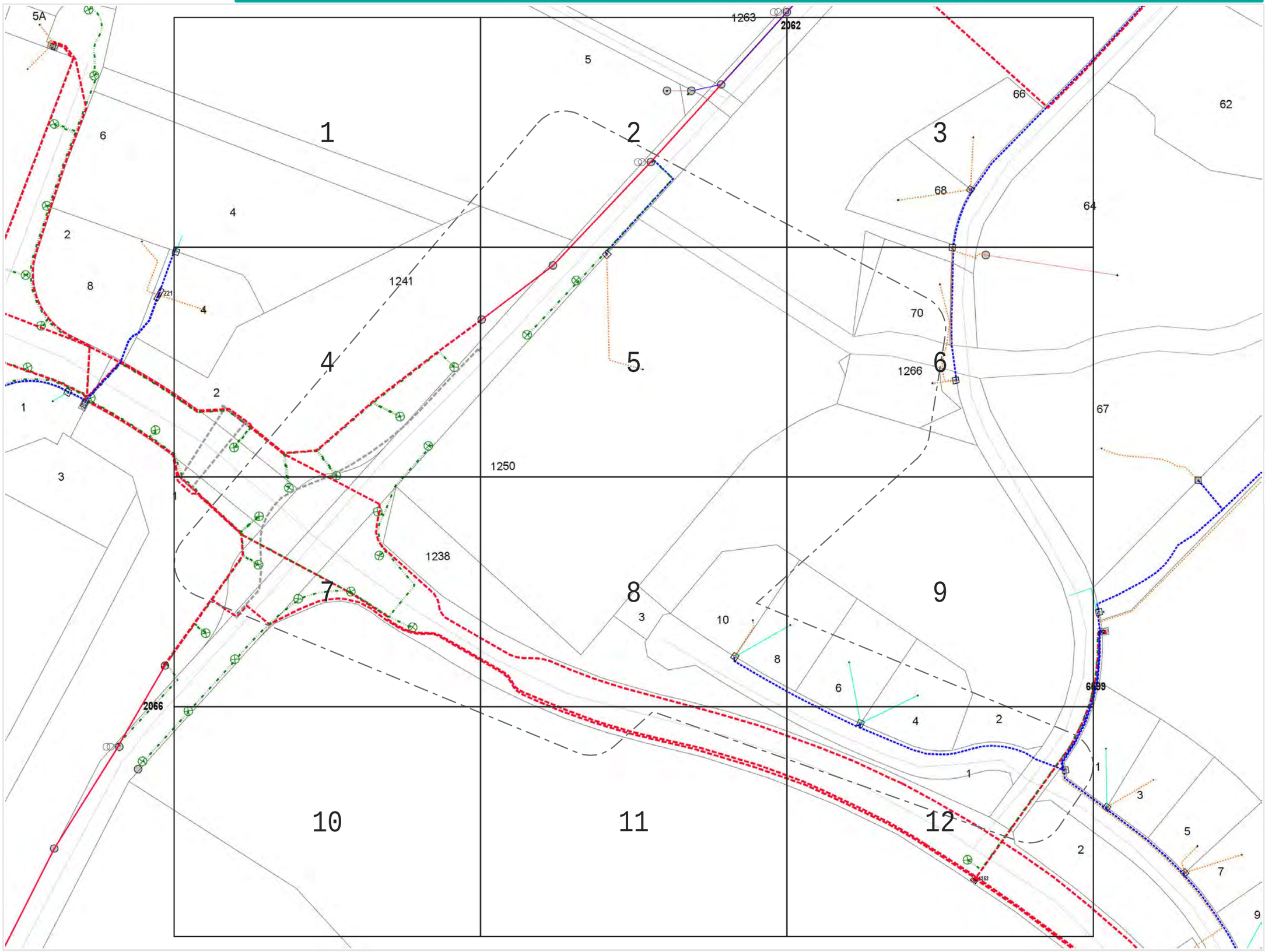
beforeUdig.co.nz

WAIMAKARIRI DISTRICT COUNCIL

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither the Waimakariri District Council or PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

SN: **10323370**
JN: **2021619**
Date: **10/05/2022**

IMPORTANT: MainPower does not guarantee the accuracy of its records, nor does it guarantee the accuracy of its electronic location. Cables/infrastructure may be present in the vicinity of works which are unmarked on plans or have not been electronically located. The customer should take note that works in the vicinity of cables and other power infrastructure is extremely hazardous and should only be carried out by competent persons. The customer should have procedures in place that mitigate the risk of contact with live cables or power lines. If in doubt, contact MainPower for guidance on 0800 30 90 80.



Legend

- 11-66kV Mains Underground
- 11-66kV Mains Overhead
- 400V Mains Underground
- 400V Mains Overhead
- 400V Service Underground
- 400V Service Overhead
- 400V Streetlight Underground
- 400V Streetlight Overhead
- Fibre Optic Cable
- Kiosk/Switching Station
- Pole
- Service Box
- Link Box
- Streetlight
- Meter Point
- Transformer Site

NOTE: All cables/objects marked in grey are considered not in service

MAINPOWER NEW ZEALAND LTD
ALL RIGHTS RESERVED
UNAUTHORISED USE PROHIBITED

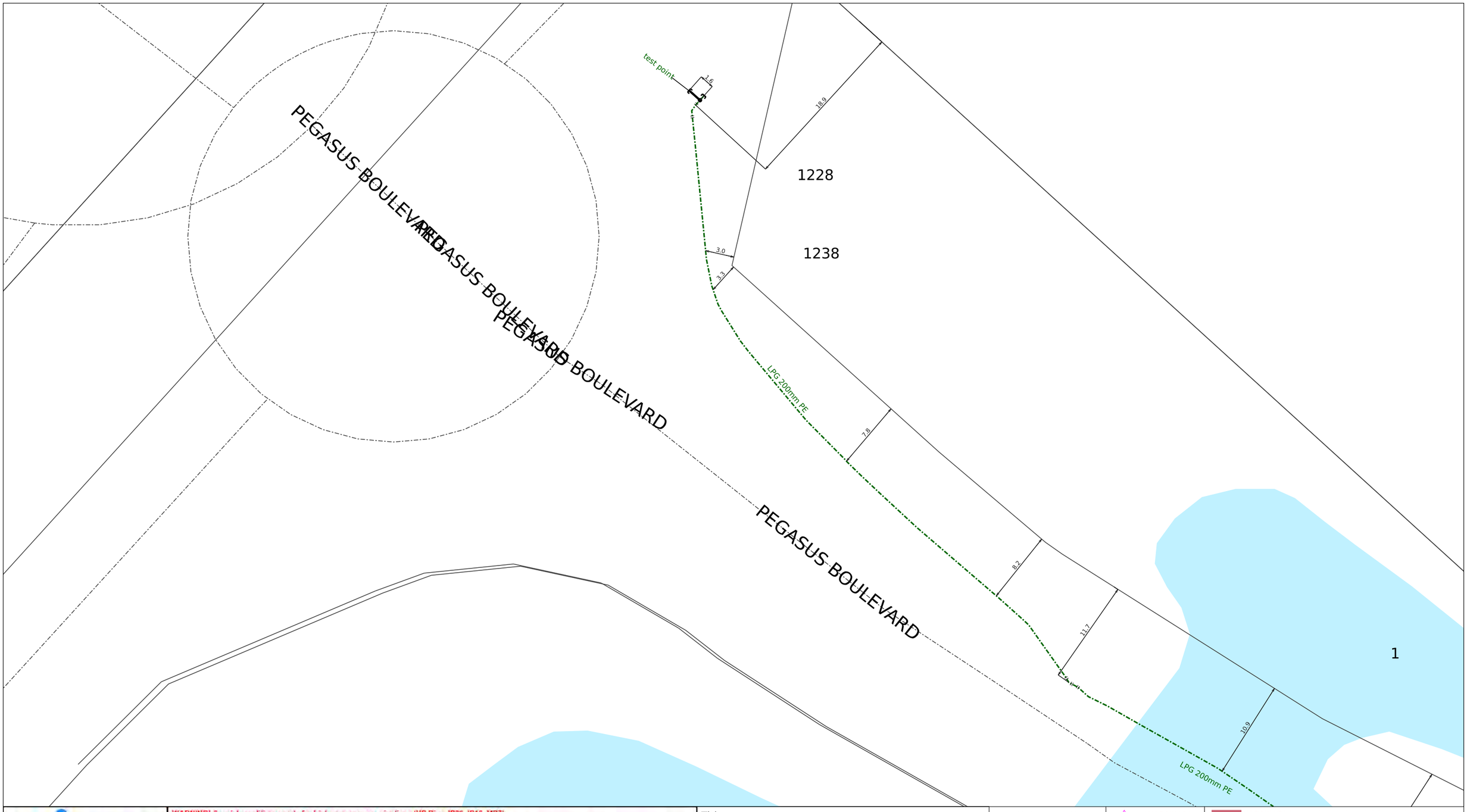
Sequence No: 10323371
Job No: 2021619
Location: Main North Rd
Pegasus, Canterbury

Issue Date: 10 May 2022

N

Sheet No: **OVERVIEW**
Scale: 1:2050
Expires: 07 Jun 2022

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither MainPower or PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.



© Vector Limited. This plan is the property of Vector Limited. "Vector" and the "V device" are registered trade marks of Vector Limited. All rights reserved. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Vector Limited.

WARNING! Special conditions apply for high pressure gas pipelines (HP Pipe, IP20, IP10, MP7)

A permit/consent is required for any excavation within 2 metres of this pipeline. A MINIMUM of 3 working days notice is required when applying for a permit/consent. Refer to attached covering letter for additional information.

DISCLAIMER: Whilst care has been taken in the preparation of this plan, Vector Limited and its subsidiaries do not accept any liability for its accuracy and completeness and do not make any representation or warranty, express or implied, in relation to the same. These drawings are not to scale and may not show customer connections or obsolete lines. Works may have occurred in the vicinity which may not be represented in this plan at the date of issue. The information contained in this plan is supplied for reference purposes only; actual dimensions and locations on site may differ from those indicated. Without limiting the foregoing, where plans are more than 28 days old they should not be used; a new plan should be requested from Vector.

Vector reminds you of your responsibilities under the Health and Safety at Work Act 2015, whereby you must establish the location of underground services before commencing excavation.

If you hit an electricity cable or overhead line please call us immediately on 0508 VECTOR (0508 832 867). If you hit any gas pipeline call the Fire Service first on 111. If you hit a gas distribution pipe in the Auckland area call us on 0800 764 764, if you hit a gas pipeline in the rest of the North Island call FIRST GAS on 0800 800 393. If you hit a gas transmission pipeline call FIRST GAS on 0800 734 567. If you hit a communications cable (all areas) call us immediately on 0800 826 438 (select option 1).

Title:

Request Title:	
Company Name:	
Usage:	Request ID: 10323374
Request for:	Scale: 1:400
Customer Contact:	Printed by:
Phone:	Date printed: 10. May 2022
Client Reference:	Page: 5 of 20

PIPE COLOUR BY PRESSURE

- LP Pipe
- LPG Pipe
- MP1 Pipe
- MP2 Pipe
- MP4 Pipe
- MP7 Pipe
- IP10 Pipe
- IP20 Pipe
- HP Pipe
- 0 kPa

WARNING! Live service within this property.

WARNING! Indication only additional data is required

Transmission Pipeline (ex - NGC)
Please contact Vector - New Plymouth on 0800 734 567 for On-Site Location and Work Permits. A minimum of 48 hours notice is required.

WORK MANAGEMENT

- In Progress
- Planned
- Future Planned

OTHER GAS FEATURES

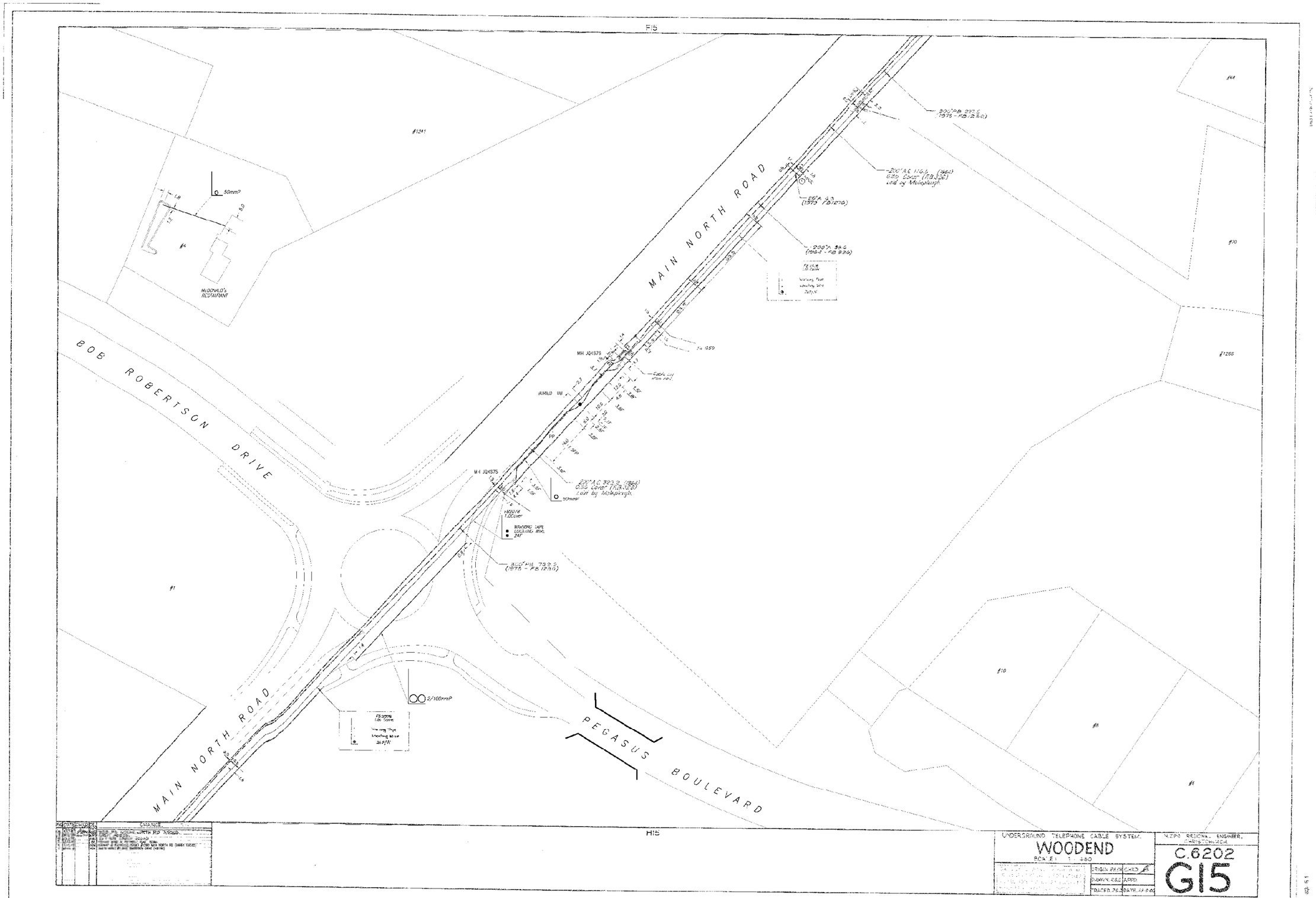
- Fibre Optic
- Closed Valve
- Gate
- Riser
- Open Valve
- PRS
- Service Regulator
- Reducer

CHORUS

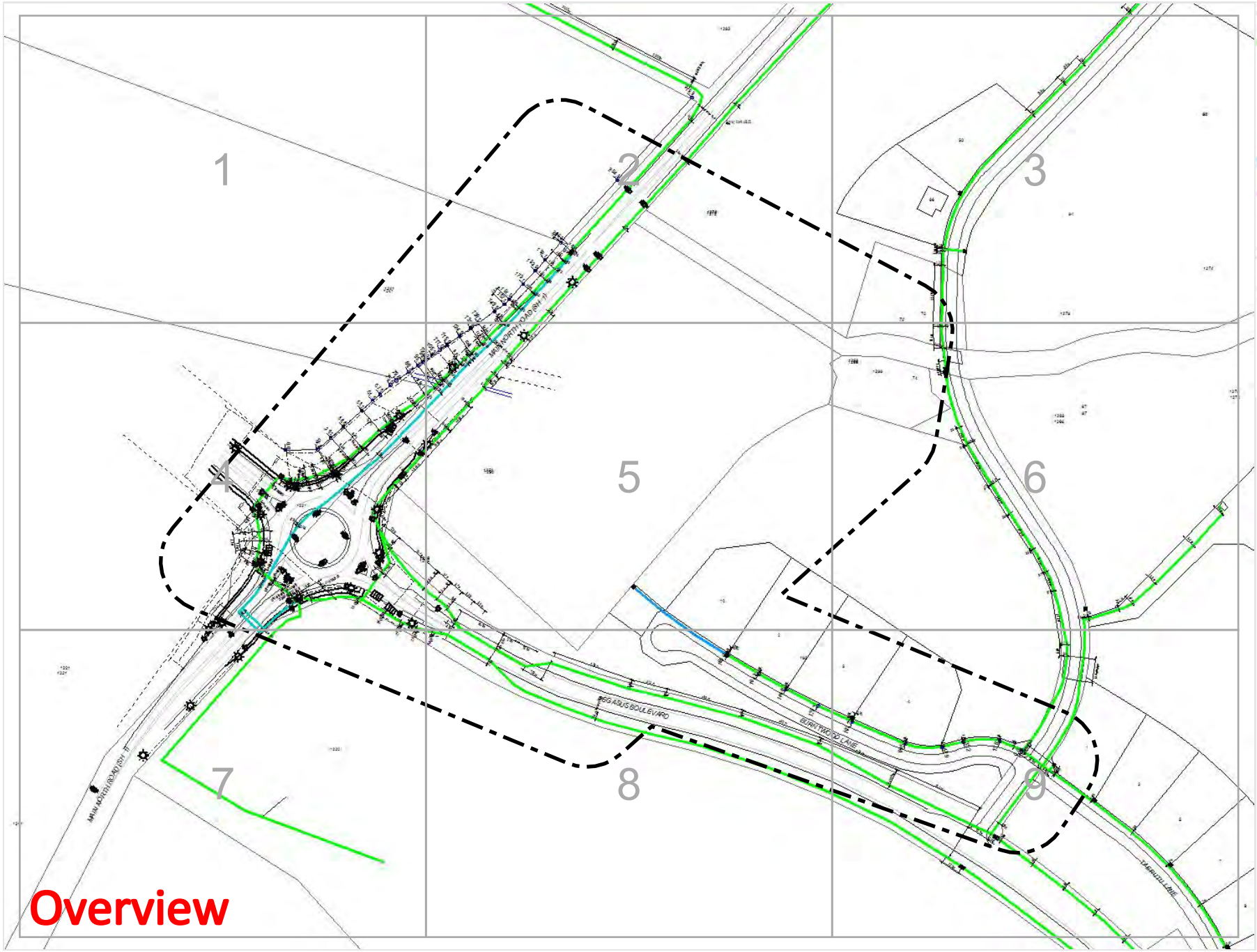
WARNING: Buried services are widespread and it should be assumed that they are present until it is proven otherwise.
Cables should be expected to be found at ANY depth.
In most instances Chorus plans do NOT show house service feeds on private property.
Refer to cover letter provided with your request for additional information - use all plans provided in conjunction with each other
You are responsible for interpreting the information provided and should refer to Worksafe.govt.nz for the 'Guide for safety with underground services'
For assistance contact Chorus Network Protection on 0800 822 003 or if you suspect damage has occurred contact 0800 463 896 opt 2

N

Plan Name	G15
Plan ID	269458
Version	GE
Current at	10/05/2022



Sequence No: 10323373
Job No: 2021619
Location: Main North Rd, Pegasus, Canterbury 7691



Overview

Legend

- Existing Vodafone network cables, marked as:
  - "Vodafone"
  - "ex Clear"
  - "ex Saturn, ex TelstraSaturn"
  - "ex TelstraClear or TCL"
- Proposed, or 'as stated'
- Infrastructure owned by others

Abbreviations Key

ES/EOS	Edge of Seal
PP	Power Pole: Circle with line centre line
F/L	Fence line: Yellow line with dashed black line

N

Scale: 1:3075
Expires: 07 Jun 2022

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Vodafone NZ Ltd nor PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

Appendix C. Correspondence with WDC & Utilities Provider

Cameron Mars

From: Craig Freeman <craig.freeman@wmk.govt.nz>
Sent: Thursday, 14 April 2022 11:15 am
To: Cameron Mars
Cc: Subdivision Eng
Subject: RE: [#503498] Pegasus Makete Servicing Requirements (Water & Wastewater)

[EXTERNAL EMAIL – CAUTION: This email originated from outside of Eliot Sinclair, please check the FROM address to ensure the source is trusted. If you're unsure, please check with Helpdesk]

Hi Cameron,

Confirming that there is currently capacity in the surrounding infrastructure to cater for the site both in terms of water and wastewater.

I have also passed this on to our Stormwater team for comment on that side of things.

Thank you,

Cheers,

Craig Freeman | **Water Engineer**
3 Waters
Phone: 0800 965 468 (0800 WMK GOV)

From: Council Office <office@wmk.govt.nz>
Sent: Thursday, 7 April 2022 11:45 AM
To: IM Staff <IM@wmk.govt.nz>
Subject: FW: [#503498] Pegasus Makete Servicing Requirements (Water & Wastewater)

Denise Cowan | **Customer Services Officer - Phone Specialist**
Customer Services
office@wmk.govt.nz
Phone: 0800 965 468 (0800 WMK GOV)

From: Cameron Mars <JCM@eliotsinclair.co.nz>
Sent: Thursday, April 7, 2022 10:57 AM
To: Subdivision Eng <subdivisioneng@wmk.govt.nz>; Council Office <office@wmk.govt.nz>

Cc: Jenny Bull <jb@eliotsinclair.co.nz>
Subject: [#503498] Pegasus Makete Servicing Requirements (Water & Wastewater)

[THIS EMAIL IS FROM AN EXTERNAL SOURCE] DO NOT CLICK links or attachments unless you recognise the sender email address and know the content is safe.

Dear WDC Subdivision Engineer (water and wastewater team),

We are carrying out a services investigation for a proposed 3.044 ha residential and commercial development (called Makete) to be located at 1250 Main North Road, Pegasus (corner of Main North Road & Pegasus Boulevard), shown in the site location plan at the bottom of his email (and attached). The services investigation is part of a proposed plan change submission. The land area will be used as a market (shown by yellow areas in the layout plan) bordered by medium density residential activities (shown by brown in the layout plan). The residential component is medium density and comprises of approx. 40 dwellings. The market will primarily be dry activities, family entertainment, agricultural experience, relaxation zones, workshops etc.

It is not intended to vest any internal roads or services with WDC, all will remain in private ownership.
Could WDC please confirm if the existing water supply and wastewater infrastructure within this area has capacity to service the site and if not any upgrade requirements to allow servicing of this site to occur?

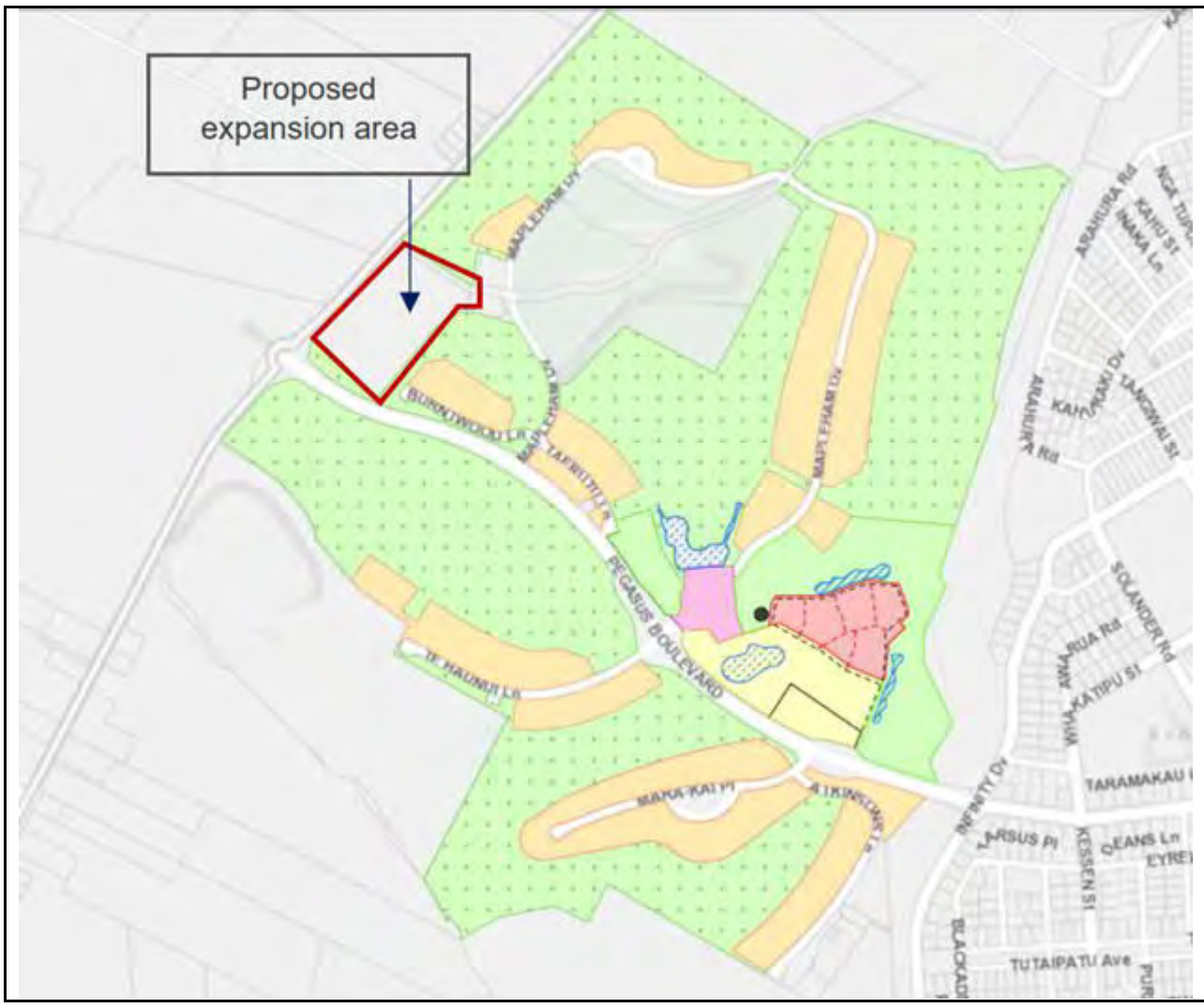
With regards to stormwater, we will provide treatment and attenuation (50-year critical duration) prior to discharging to the stream running through the site. ECan stormwater consent will be required, and we assume that given no infrastructure is being vested that WDC will have little comment to add to this, provided the stormwater design meets relevant codes/standards etc. If there are any specific stormwater design requirements that we may not be aware of, could you please provide these (otherwise we will just assume standard treatment and attenuation will apply).

We have provided some additional water supply and wastewater information below with regards to expected demands and flow rates, I've attached the calculations.

Wastewater:
Combined residential and commercial flows:
ADWF = 0.64 L/s
PDWF = 1.60 L/s
PWWF = 4.77 L/s

Water Supply
Residential peak demand = 4 L/s
Commercial peak demand = 1.65 L/s
Fire fighting (based on the commercial), assumed FW3 = 50 L/s

If you require further information or clarification to enable to you confirm the servicing requirements for the site, please do not hesitate in contacting me.



Kind Regards

Cameron Mars
3 WATERS ENGINEER
BE(Hons) Environ CMEngNZ IntPE(NZ) CPEng
+64 3 379 4014 ext.
+64 27 208 2307
eliotsinclair.co.nz
Christchurch | Rangiora| Wānaka
Queenstown | Hokitika | Nelson

Caution: This email (including any attachments) may contain confidential and privileged information. If you have received it in error, please 1) notify the sender by return email (or telephone) and then delete this email, together with all attachments and your reply and 2) do not act on this email in any other way. Please visit https://www.eliotsinclair.co.nz/terms-conditions for important information concerning this message. Thank you.

07/04/2022 - via email

Network Reference: 00038207

MainPower New Zealand Limited
172 Fernside Road, RD 1 Kaiapoi 7691
PO Box 346, Rangiora 7440
T. 0800 30 90 80

C Mars
Elliot Sinclair

Dear Camero,

Re: Power Connection for Proposed Subdivision. CB21A/964 RS 864 1250 Main North Road Waikuku

MainPower confirms that the High voltage Network in the vicinity of 1250 Main North Road Waikuku has the capacity to supply the proposed subdivision.

This letter is to advise you that MainPower's network has the capacity for the proposed subdivision. This may not mean that there is an electrical supply to the boundary of the proposed lots.

Please do not hesitate to contact the MainPower NZ Ltd NSR Team on 03 311 8311 or NSR@mainPower.co.nz if you have any questions.

Yours sincerely,

Matthew Bate
Network Services Representative

Cameron Mars

From: Darin Bedggood <Darin.Bedggood@ongas.co.nz>
Sent: Thursday, 7 April 2022 4:34 pm
To: Cameron Mars
Subject: RE: [#503498] Gas for Pegasus Residential/Commercial Development

[EXTERNAL EMAIL – CAUTION: This email originated from outside of Eliot Sinclair, please check the FROM address to ensure the source is trusted. If you're unsure, please check with Helpdesk]

Hi Cameron,

Yes, there is certainly the capability to tap into the existing LPG network.
Once you have a site plan please get in touch so we can discuss how the network would be installed along with the other services.

Many thanks,

Darin Bedggood | Business Development Manager - South Island
Vector Ongas | 15 Print Place | Middleton | Christchurch 8024
DDI: 03 335 5442 | Mob: 027 201 9659
Darin.Bedggood@ongas.co.nz | www.ongas.co.nz

vector ongas

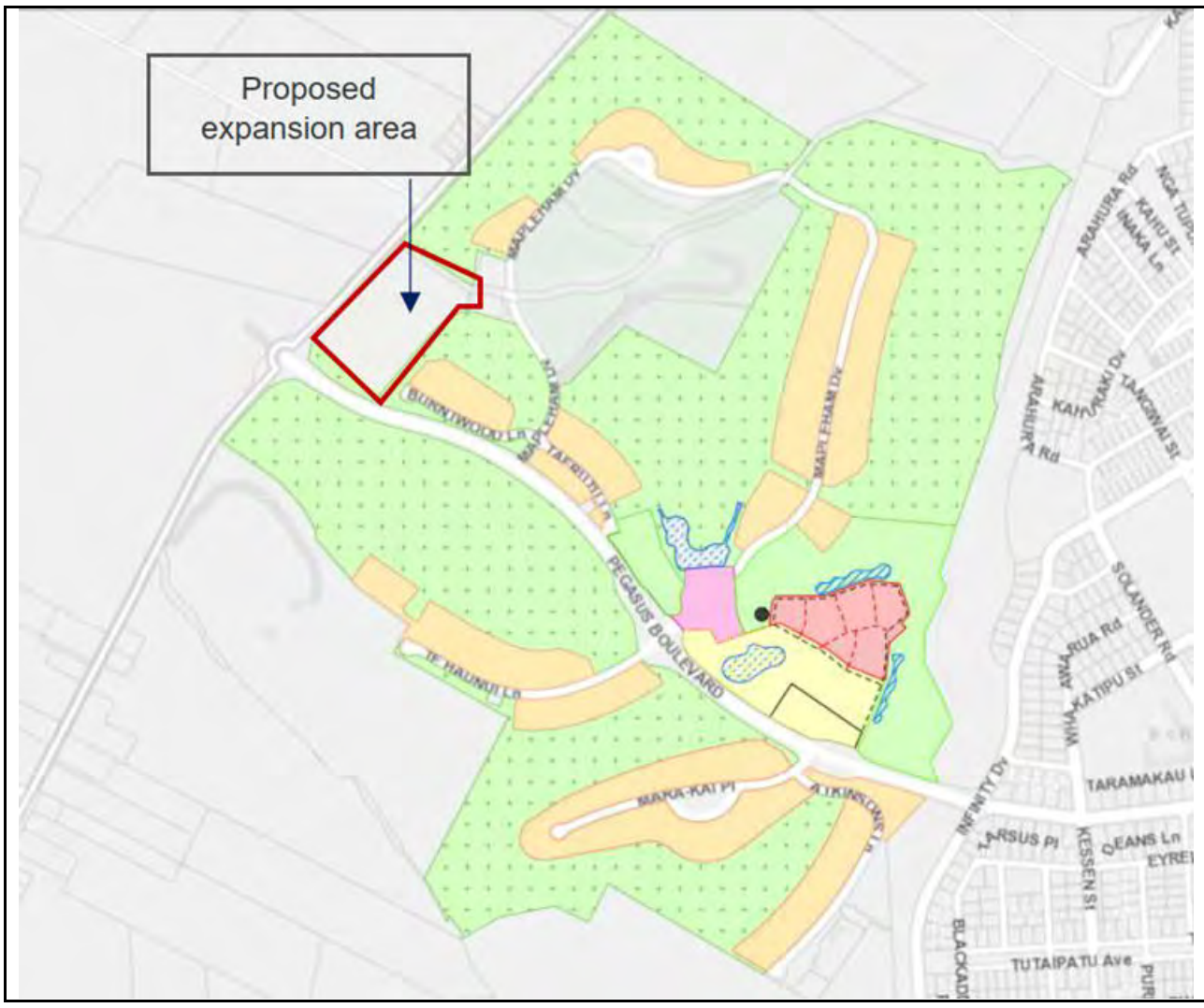
connect with us

From: Cameron Mars <JCM@eliotsinclair.co.nz>
Sent: Thursday, 7 April 2022 11:53 AM
To: Enquiries OnGas <Enquiries@ongas.co.nz>; Darin Bedggood <Darin.Bedggood@ongas.co.nz>
Cc: Jenny Bull <jb@eliotsinclair.co.nz>
Subject: [#503498] Gas for Pegasus Residential/Commercial Development

Good morning,

We are carrying out a services feasibility investigation for a proposed 3.044 ha residential and commercial development, to be located at 1250 Main North Road, Pegasus (corner of Main North Road & Pegasus Boulevard), shown in the site location plan below. The land area will be used as a market (shown by yellow areas in the layout plan) bordered by medium density residential activities (shown by brown in the layout plan). The residential component would comprise of approx. 40 dwellings. The market will primarily, family entertainment, agricultural experience, relaxation zones, workshops etc.

Could you please provide us with confirmation on whether there is capacity within the existing gas network in the area for us to determine if the development could be serviced, and if not what upgrades to the network would be required?



If you require further information, please do not hesitate in contacting me.

Kind Regards

Cameron Mars
3 WATERS ENGINEER
BE(Hons) Environ CMEngNZ IntPE(NZ) CPEng
+64 3 379 4014 ext.
+64 27 208 2307
eliotsinclair.co.nz
Christchurch | Rangiora | Wānaka
Queenstown | Hokitika | Nelson

Caution: This email (including any attachments) may contain confidential and privileged information. If you have received it in error, please 1) notify the sender by return email (or telephone) and then delete this email, togethe all attachments and your reply and 2) do not act on this email in any other way. Please visit https://url.avanan.click/v2/___https://www.eliotsinclair.co.nz/t conditions___.YXAxZTp2ZWN0b3I6YTpvOmY3N2U3ZDgwZDUwOGI5ZmRjMDliMTk2MDA2OGYwYjMxOjY6YjdmNjpkOGU4NzQwYWE0ZjE2ZTRjMjBhM2FiODc0Y2FjZDU2NzQxYmVjMjBlMDRkMWZjNGM4MGZhNzNkMDAyZWMzMGQxO for important information concerning this message. Thank you.

Cameron Mars

From: Rob Armstrong <Rob.Armstrong@enable.net.nz>
Sent: Monday, 2 May 2022 10:30 am
To: Cameron Mars
Subject: FW: FN1113_CIM812595_Cnr MAin North Rd & Pegasus Boulevard
Attachments: FN1113_RN716_CIM812595_Cnr Main North Rd & Pagasus Blvd_V1.pdf

[EXTERNAL EMAIL – CAUTION: This email originated from outside of Eliot Sinclair, please check the FROM address to ensure the source is trusted. If you're unsure, please check with Helpdesk]

Cameron

Note the feasibility attached

Enable can service this block on land with a network extn approx 78 metres (shown as a pink line)

We will need to business case the extn and will need to know if the trench would be provided before we request contractor quote

Lots are at $400 plus GST each

Is that all you need in the meantime?

thanks

Rob Armstrong
Business Development Manager | Enable Networks Limited
M: +64 27 432 1903
enable.net.nz

The information contained in this message and/or attachments is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, re-transmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any system and destroy any copies.

Save a tree. Please think before printing this email.

From: Armando Seville <Armando.Seville@civtec.co.nz>
Sent: Monday, 2 May 2022 9:55 am

To: Rob Armstrong <Rob.Armstrong@enable.net.nz>
Cc: Nikhil Gone <Nikhil.gone@civtec.co.nz>
Subject: FN1113_CIM812595_Cnr MAin North Rd & Pegasus Boulevard

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Rob,

Proposed Ericsson cabinet for the initial 40 lots to be served. The site is about 3.044 hectares. It will have a commercial area shown by a yellow area and
bordered by a medium density residential activities by brown areas on the Plan. The commercial area shall be a market with eh family entertainment,
agricultural experience (farm land) \, relaxation sones, workshops and others. No number of buildings and layout for the market area yet.

There is a network Ext that requires to install 1 Chamber and trench for the 1x7Way from the proposed chamber up to the access to the Development area.
Note that there is no Layout Plan of the entire area yet so the Network Extension shall be finalised once the Layout Plan of the subdivision is provided.
Cabinet location and Duct distribution is not possible at this Stage. It could be done when the Development Layout Plan is provided.
To date the approximate trench of 78 meters and proposed chamber subject to change upon Development Layout Plan is provided.
Please find attached Feasibility Sketch.

FYI.

Regards

Armando Seville
Network Designer

civtec

Mobile: *Web:* www.civtec.co.nz

Attention:
This email message and accompanying data may contain information that is confidential and subject to legal privilege.
If you are not the intended recipient, you are notified that any use, dissemination, or copying of any part of this email and accompanying data is prohibited.
If you have received this email in error, please notify us immediately and delete this email message from your computer.
Civtec Limited is not responsible for any changes made to this message and / or any attachments after sending by Civtec Limited.

The opinions expressed in this email are those of the author and are not necessarily those of Civtec Limited.

FN 1113_CM 812595 Cnr. Main North Road & Pegasus Blvd. (RN 716)

BOB ROBERTSON DRIVE

on the email Commercial Area shall be a Market with the family entertainment, agricultural Experience (farm yard), relaxation zones, workshops.

No numbers of Bldgs & layout for the Market Area yet.

Proposed new Cabinet for the initial 40 lots to serve.

Required 78m trench & a chamber for 1x7 Way Duct.

PROP. CHAMBER

PEGASUS BLVD

EXISTING RNG 2??

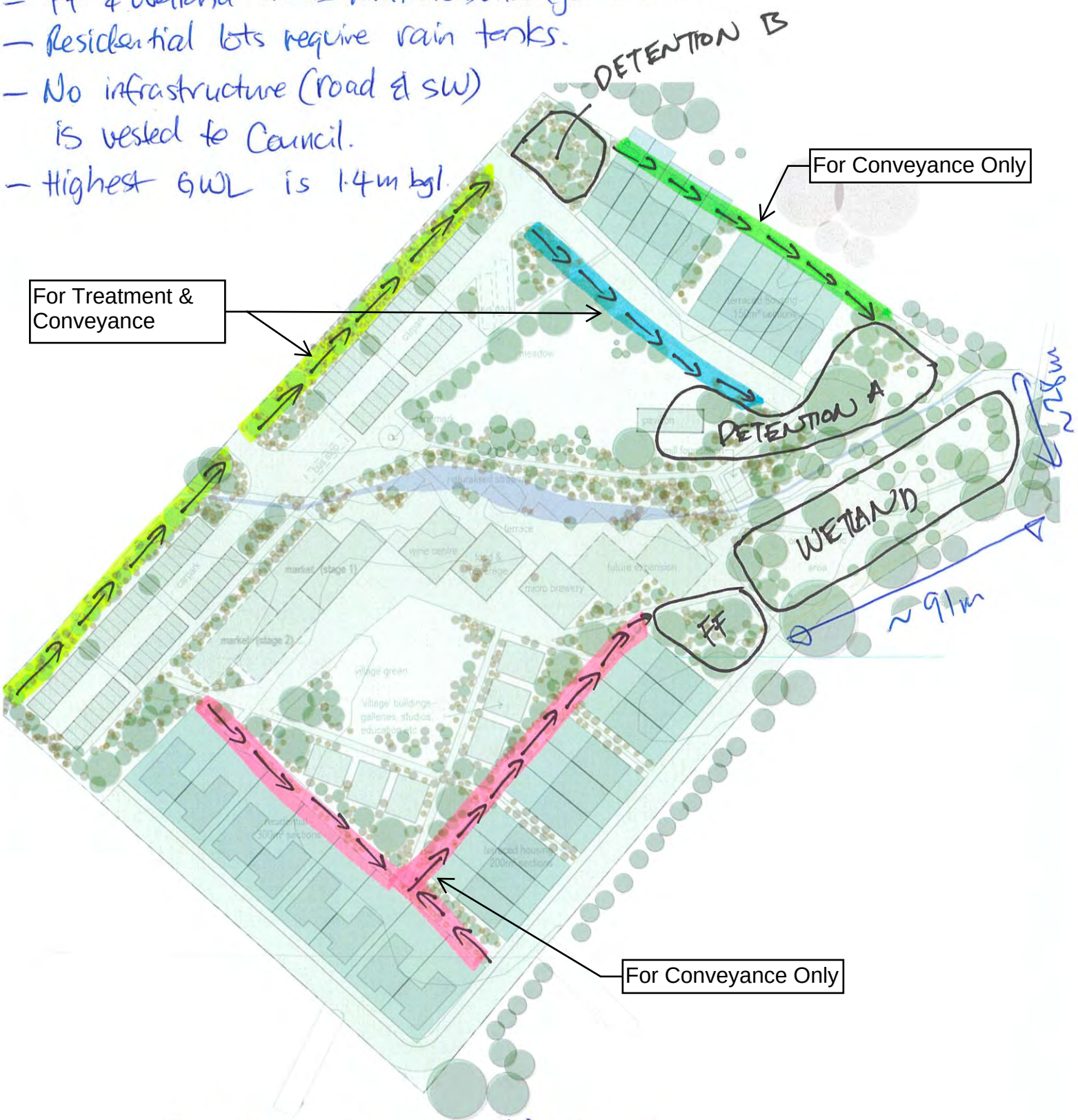
TOTAL = TRENCH 78m for the 1x7 Way
ROAD CROSSING 1x1000mm = 15m

RNG 111 - CABLE (THROUGH CAB'S INSIDE BOB ROBERTSON DR)

Appendix D. Concept Stormwater Network Masterplan

Assumptions

- FF & Wetland treats Māketebuildings & Road
- Residential lots require rain tanks.
- No infrastructure (road & SW) is vested to Council.
- Highest GWL is 1.4m bgl



First Flush Basin Area (FF) 370 m²
Wetland Area 2500m² (Ratio 1W:10L)
Detention A Area 910 m²
Detention B Area 300 m²
Swale → 3m wide
Swale → 10m wide
Swale → 5m wide
Swale → 3.5m Wide

Appendix F:

Ecological Assessment

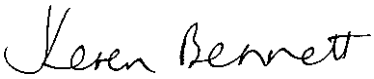
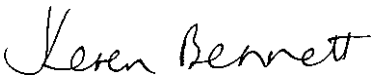
PEGASUS MĀKETE, 1250 MAIN NORTH ROAD, WOODEND – ECOLOGICAL ASSESSMENT

For DEXIN Investments Limited

November 2022

REPORT INFORMATION AND QUALITY CONTROL

Prepared for:	DEXIN Investments Limited

Author:	Keren Bennett Technical Director (Freshwater)	
Reviewer:	Hamish Dean Principal Ecology Consultant	
Approved for Release:	Keren Bennett Technical Director (Freshwater)	

Document Name	R_11347_Pegasus Makete_ecology

Version History:	V1	8 June 2022
	V2	21 November 2022

TOITŪ CARBON REDUCE ISO 14064-1 ORGANISATION

+IMPAC PREQUAL HEALTH & SAFETY ASSESSED

CONTENTS Page

1 INTRODUCTION 1
2 DESKTOP ASSESSMENT 2
2.1 Site and surrounding features 2
2.2 Site history 2
2.3 Ecological databases 2
2.3.1 Freshwater fish 2
2.3.2 Macroinvertebrate monitoring 4
2.3.3 Water Quality 5
3 SITE ASSESSMENT 6
3.1 Instream habitats 6
3.2 Aquatic biota 8
3.2.1 Macroinvertebrate communities 8
3.2.2 Fish 8
3.3 Wetlands 8
3.4 Northern Drain 9
3.5 Vegetation 9
3.6 Terrestrial fauna 10
3.7 Summary of ecological values 10
4 PROPOSED DEVELOPMENT 11
4.1 Proposed rezoning and development 11
4.2 Ecological effects of proposed rezoning and development 11
4.2.1 Sediment discharge 11
4.2.2 Stormwater management 11
4.2.3 Vegetation removal 11
4.2.4 Construction in proximity to the stream 12
4.3 Discussion 13
5 REFERENCES 14

List of Tables

Table 1: New Zealand Freshwater Fish Database records for Taranaki Stream 4
Table 2: Summary of MCI and QMCI values interpretation 5
Table 3: Five-year median of macroinvertebrate metrics from Taranaki Stream SOE monitoring sites 5
Table 4: Five-year median of water quality results from Taranaki Stream SOE monitoring sites 5
Table 5: Comparison of Taranaki Stream macroinvertebrate results from the site in comparison to SOE monitoring results 8

List of Figures

Figure 1: Overview of site (delineated in red) and surrounding land use. 1
Figure 2: Aerial view of site, illustrating approximate alignment of Taranaki Stream and northern drain alignment. Foot bridge locations illustrated by red dots. 3
Figure 3: Upper reaches of the stream within the site. 7
Figure 4: Shed beside stream located on foundations of former flour mill (left) and evidence of historic bank reinforcing upstream of mill site (right) 7
Figure 5: Lower stream: view upstream from lowermost footbridge (left) and final pool in northeastern corner of the site (right) 7
Figure 6: Upper (left) and lower (right) sections of the norther drain 9
Figure 7: Grasslands and mature trees associated with the stream and fencelines 9

List of Appendices

Appendix A: Historic aerial photographs
Appendix B: Raw macroinvertebrate data

1 INTRODUCTION

DEXIN Investments Ltd ('DEXIN') has made a submission to the Proposed Waimakariri District Plan ('proposed WDP') to support the rezoning of their property at 1250 Main North Road, Woodend ('the site'). The site is approximately 3.05 ha in size located on the corner of Main North Road (State Highway 1) and Pegasus Boulevard (Figure 1). The property is currently zoned Rural in the operative Waimakariri District Plan, with the proposal to rezone the site as Special Purpose Zone (Pegasus Resort) to provide for a range of agricultural tourism activities and some medium density residential development.

4Sight Consulting (4Sight) was commissioned to undertake an ecological assessment of the site and surrounding area to inform the detailed development plan and further submission information, including discussion of any ecological effects of the proposed rezoning and re-development.

Figure 1: Overview of site (delineated in red) and surrounding land use.

2 DESKTOP ASSESSMENT

2.1 Site and surrounding features

The site is an approximately 3.05 ha rural block located on the corner of Main North Road (State Highway 1) and Pegasus Boulevard (Figure 1). The site is bounded to the west by Main North Road (State Highway 1), to the southeast and northeast by large lot residential Lots and to the north, south and east by Pegasus Golf Course. A single dwelling is present on the site, with several sheds located to the east of the house, backing onto the stream.

The site is largely flat, generally following a gentle gradient towards the northeastern corner. The majority of the site is in pasture, with mature poplars forming wind breaks along the southern, northern and parts of the eastern site boundary. Mature pine, gum, macrocarpa and willow trees are present within the centre of the site, alongside sections of the stream and following some fence lines. A small orchard is present in the northeast corner, to the south of the stream.

The Taranaki Stream, a tributary of Rakahuri / Ashley River, bisects the site. The stream is a spring-fed plains stream and originates near the intersection of Smarts Road and Rangiora Woodend Road, approximately 5km upstream of the site. Taranaki Stream enters the property through culverts beneath Main North Road approximately mid-way along the western property boundary, draining through the site to exit from the northeastern corner of the site (Figure 2). An incised and straightened drain also follows the northern property boundary and converges with the stream near the northeastern site boundary (Figure 2).

No ecological overlays under the proposed WDP apply to the site. The stream through the site is identified in the proposed WDP as subject to esplanade provisions. The stream, as a tributary of Rakahuri/Ashley River, is identified as a site and area of significance to Māori (SASM) containing Mahinga Kai environs, habitats and taonga species (SASM 025). A wāhi tapu site (SASM 006) is also identified in the vicinity.

2.2 Site history

Historic aerial photographs of the site are available from 1942 (see Appendix A). The photos illustrate that the Taranaki Stream upstream of the site (west of Main North Road) and through the western half of the site was very straight and channelised. The northern drain can be seen as a shallow depression at this time too. Several large trees are present adjacent to the stream near the house and to the east of the farm sheds and the orchard appears to be established. Few changes within the site are evident through to current day, with the exception of the shelterbelt poplars being planted between 2000 and 2004.

In 2000 an online, ornamental pond is evident within the lifestyle properties immediately northeast of the site and extensive planting of these properties had occurred. By 2008 the Pegasus golf course development is underway, with active earthworks occurring surrounding the site, including the formation of the ponded water features that form part of the stormwater management for the golf course and associated residential developments.

By 2017 the Ravenwood retail and residential subdivision is underway to the west of Main North Road. As part of this development the channelised Taranaki Stream was realigned to form a naturalised, meandering stream channel. It is understood to have been realigned closer its historic alignment (PDP 2015). Riparian replanting of the realigned watercourse has also occurred.

2.3 Ecological databases

2.3.1 Freshwater fish

A search of the New Zealand Freshwater Fish Database returned 50 records for the Taranaki Stream sub-catchment, with two records collected in the early 1980s and the remainder collected between 2001 – 2021 (Table 1). Eight native fish species, including two estuarine wanders (black flounder and yellow-eyed mullet) and one exotic species (brown trout) have been recorded from Taranaki Stream. Records for Taranaki Stream upstream (west) and within the golf course (northeast) of the site indicate the presence of all the recorded freshwater species. Longfin eel, inanga and Canterbury galaxias are listed as 'at risk – declining' in the most recent threat classification lists (Dunn et al. 2018). Giant bully are listed as 'at risk – naturally uncommon'.

Figure 2: Aerial view of site, illustrating approximate alignment of Taranaki Stream and northern drain alignment. Foot bridge locations illustrated by red dots.

The range of species present upstream of the site include inanga and giant bully. These fish rely on burst swimming to pass instream obstacles, so their presence indicates that there are no notable barriers to migratory fish passage throughout the Taranaki Stream. Flood gates are known from near the Ashley River confluence and likely provide a temporary barrier for fish passage, when closed.

Table 1: New Zealand Freshwater Fish Database records for Taranaki Stream

Scientific name	Common name	Count	Conservation status*
Aldrichetta forsteri	Yelloweye mullet	3	Not threatened
Anguilla sp	Unidentified eel	34	-
Anguilla australis	Shortfin eel	41	Not threatened
Anguilla dieffenbachii	Longfin eel	26	At risk: declining
Galaxias sp	Unidentified galaxiid	11	-
Galaxias maculatus	Inanga	12	At risk: declining
Galaxias vulgaris	Canterbury galaxias	1	At risk: declining
Gobiomorphus sp	Unidentified bully	19	-
Gobiomorphus cotidianus	Common bully	26	Not threatened
Gobiomorphus gobioides	Giant bully	14	At risk: naturally uncommon
Rhombosolea retiaria	Black flounder	1	Not threatened
Salmo sp	Unidentified salmonid	1	-
Salmo trutta	Brown trout	24	Introduced and naturalised
No species recorded	-	2	-

* from Dunn et al. 2018

2.3.2 Macroinvertebrate monitoring

Environment Canterbury undertakes State of the Environment monitoring of macroinvertebrate communities at two locations in the Taranaki Stream: in the upper reaches of the stream at Gressons Road Bridge[1], and downstream of the site at Preeces Road.[2] Macroinvertebrate community metrics are calculated to assess the ecological condition of the community at each site, including taxa richness, %EPT, which is the proportional abundance of three generally pollution-sensitive orders of insect recorded from each sample (Ephemeroptera or mayflies; Plecoptera or stoneflies; Trichoptera or caddisflies), the Macroinvertebrate Community Index (MCI) and the Quantitative MCI (QMCI). The MCI and QMCI are based on the average pollution sensitivity scores for individual taxa recorded (Stark, 1998). Scores of >120 and >6.0 (for MCI and QMCI) are indicative of clean water or 'excellent' habitat quality, 100 – 120 and 5.0 – 6.0 are indicative of 'good' quality or mild organic pollution, 80 – 100 or 4.0 – 5.0 are indicative of 'fair' quality or probable moderate pollution, and scores <80 and <4.0 are indicative of 'poor' quality or probable severe pollution (Stark, 1998; Table 2).

[1] https://www.lawa.org.nz/explore-data/canterbury-region/river-quality/lower-ashley-catchment/taranaki-creek-gressons-rd-bridge/

[2] https://www.lawa.org.nz/explore-data/canterbury-region/river-quality/lower-ashley-catchment/taranaki-creek-at-preeces-rd-main-trib-near-marae/

Table 2: Summary of MCI and QMCI values interpretation

Quality	Descriptors	MCI	QMCI
Excellent	Clean water	> 120	> 6
Good	Doubtful quality/possible mild pollution	100 - 120	5 – 6
Fair	Probable moderate pollution	80- 100	4 – 5
Poor	Probable severe pollution	< 80	< 4

Table 3: Five-year median of macroinvertebrate metrics from Taranaki Stream SOE monitoring sites

Parameter	Gressons Road Bridge	Preeces Road
MCI	82.2	77.6
QMCI	4.20	4.10
Taxonomic richness	20	17
%EPT	28	24

Results indicate that instream habitat or water quality at both these sites is degraded, and communities are largely composed of taxa tolerant of degraded instream conditions. Median MCI and QMCI scores are indicative of 'fair' to 'poor' instream habitat quality and the proportion of sensitive EPT species is relatively low. Taxonomic richness at both sites is moderate.

2.3.3 Water Quality

Environment Canterbury also undertakes State of the Environment water quality monitoring of the same two locations in the Taranaki Stream: Gressons Road Bridge and Preeces Road.

Table 4: Five-year median of water quality results from Taranaki Stream SOE monitoring sites

Parameter	Gressons Road Bridge	Preeces Road
E. coli bacteria (n/100mL)	770	227
Water clarity (black disc, m)	5.88	-
Turbidity (NTU)	0.3	3.6
Total nitrogen (mg/L)	1.52	0.92
Total Oxidised Nitrogen (mg/L)	1.27	0.66
Dissolved Inorganic Nitrogen (mg/L)	1.275	0.679
Ammoniacal nitrogen (mg/L)	0.005	0.02
Nitrate nitrogen (mg/L)	1.27	0.66
Dissolved Reactive Phosphorus (mg/L)	0.018	0.009
Total Phosphorus (mg/L)	0.014	0.0235

Results from Gressons Road Bridge indicate that, while water clarity is very good and turbidity and ammoniacal nitrogen are low bacteria and most nutrient levels are elevated and show signs of ongoing degradation. At Preeces Road, median turbidity is high and while most nitrogen levels are lower than in the upper stream, with the exception of ammoniacal nitrogen, they are showing trends of ongoing degradation. Median phosphorus levels in the lower stream are typically low and showing signs of improvement.

Overall water quality results demonstrate nutrient enrichment and faecal contamination. In spring-fed streams, such as the Taranaki Stream, water quality contamination can be as a result of immediately surrounding land use as well as soluble contaminants transported via groundwater (Etheridge & Whalen 2019).

3 SITE ASSESSMENT

A site visit was undertaken 3 May 2022. This site visit was undertaken to review features of the site including the instream and riparian habitats of the Taranaki Stream within the site, the potential presence of wetlands, and high-level assessments of the vegetation and fauna communities of the site.

3.1 Instream habitats

The Taranaki Stream through the site comprises a steeply incised, flat-bottomed channel with an embedded gravel and cobble dominated substrate with occasional areas of deposited sand. At the time of survey, the stream was swiftly flowing and visual water clarity was excellent. As the stream is spring-fed, instream flows and velocity may be reduced during summer dry periods. Three small footbridges cross the stream, and are referred to below, with locations illustrated in (Figure 2). The stream showed little variability in width, typically ranging between 1.5m – 2.5m wide, with depths typically ranging between 0.15m to 0.3m. Occasional pools or deeper runs were present to a maximum estimated depth of 0.7m.

The stream has been historically straightened and likely deepened along much of its length within the site. It is understood that there was formerly a water wheel installed in the stream used to drive a flour mill. Signs of modifications associated with the flour mill are apparent in locations along the stream (Figure 4). Concrete foundations for the former mill (now with a more modern shed built on top) are located beside the central footbridge (Figure 2, Figure 4). It appears the stream banks were reinforced around a steeper section of the stream, with the channel narrowed, likely to increase flows entering the area containing the water wheel.

The upper section of the stream is highly channelised and straightened, possibly also to increase flow velocity towards the former water wheel. The stream banks in the upper section of the channel, above the upper footbridge are almost vertical and are up to approximately 2m high in places. Riparian vegetation is predominantly rank grasses through this upper reach, with a row of smaller exotic trees on the true left (northern) bank between the stream and the driveway (Figure 3). The streamside vegetation and steep bank slopes provide patchy shade to the stream bed and small beds of watercress extend from the banks in some places.

The stream reach surrounding the central footbridge is the highest gradient section of the stream and has high, steeply sloping banks throughout. Cobble substrates dominate the short sections of fastest flowing riffle/cascade habitats, with gravel and occasional deposited sand elsewhere. The stream is well shaded through much of this reach by a mix of mature trees, including macrocarpa, pine, wattle and willow, bamboo and a range of shrubs, as well as groundcover vegetation including dense ivy.

At the lowermost reach of the stream, the stream banks flattened, and the stream gradient reduced at the site of a large pool at the site boundary (Figure 5). The stream gradient was low where it flowed through the immediately adjacent adjoining properties towards Mapleham Drive.

Figure 3: Upper reaches of the stream within the site.

Figure 4: Shed beside stream located on foundations of former flour mill (left) and evidence of historic bank reinforcing upstream of mill site (right)

Figure 5: Lower stream: view upstream from lowermost footbridge (left) and final pool in northeastern corner of the site (right)

3.2 Aquatic biota

3.2.1 Macroinvertebrate communities

A composite macroinvertebrate sample was collected from the stream within the site using the Stark *et al*. (2001) hard-bottomed, semi-quantitative (C1) sampling methodology, sampling gravel or cobble dominated substrates within riffle habitat. Kick samples from a total area of approximately 0.8 - 1.0 m^2 were collected form the stream substrates, with the substrates disturbed to dislodge any invertebrates, allowing the water current to carry individuals into the net (mesh size 0.5 mm). The sample was preserved using 80% isopropyl alcohol.

The preserved macroinvertebrate sample was returned to the laboratory and sorted. Macroinvertebrates were identified to the lowest practicable taxonomic level by an experienced taxonomist (B. Stansfield, EIA Limited) and counted utilising sample processing Protocol P3 (Stark et al. 2001).

Biotic indices were calculated to assess the ecological condition of the community including taxa richness, %EPT, MCI and QMCI (Table 2). Raw macroinvertebrate results are presented in Appendix A.

The invertebrate community was found to have moderate taxa richness, with 15 taxa recorded (Table 5). Six of the taxa (40%) were from the EPT group of insects and overall EPT comprised 59% of the numerical sample abundance. The community was dominated by the sandy cased caddisfly larvae *Pycnocentria* (35% of sample abundance), the common freshwater snail *Potamopyrgus* (20%) and the common net building caddisfly larvae *Orthopsyche* (19%). *Pycnocentria* larvae are common in streams with stony, gravelly or sandy beds. Two caddisflies, *Orthopsyche* and the cased caddisfly *Olinga* have individual MCI scores of 9, indicating their preference for streams with high quality habitat and clean water. The sensitive mayfly *Deleatidium* (MCI score: 8) was also recorded in small numbers (2% of sample abundance).

Table 5: Comparison of Taranaki Stream macroinvertebrate results from the site in comparison to SOE monitoring results

Parameter	1250 Main North Road site	Gressons Road Bridge (5-year median)	Preeces Road (5-year median)
MCI	98.7	82.2	77.6
QMCI	6.2	4.20	4.10
Taxonomic richness	15	20	17
%EPT	40	28	24

The MCI score for the site was 99, indicative of 'fair' instream habitat quality. This score was higher than the median MCI scores recorded for the SOE monitoring sites above and below the site. The QMCI score calculated was 6.2, indicating 'excellent' instream habitat quality. The QMCI considers the proportional abundance of each scoring taxon, so at this site reflects the numerical dominance of higher scoring taxa like *Pycnocentria*. In comparison, median QMCI scores for the SOE monitoring sites were lower, indicative of 'fair' to 'poor' instream habitat quality.

The presence of higher scoring EPT taxa at the site on this occasion may be explained by the gradient changes and swift flows through the site. The riffles and small cascades, in conjunction with moderate riparian shade, will help maintain high dissolved oxygen levels within the stream. The stable rocky substrate is also a preferred habitat type for many EPT taxa.

3.2.2 Fish

Several bullies (likely common bullies) and two large longfin eel (500mm – 600mm in length) were observed in the lower stream during the invertebrate sampling and stream walkover.

3.3 Wetlands

No wetlands or areas of vegetation indicating the presence of potential wetlands (as defined in the National Policy Statement for Freshwater Management 2020; NPS-FM) were identified on site.

3.4 Northern Drain

A drain follows the northern site boundary and appears to be located within the neighbouring property. The drain was dry along its length at the time of visit.

Figure 6: Upper (left) and lower (right) sections of the norther drain

3.5 Vegetation

Vegetation within the site was dominated by mown pasture species. While no stock were present on site during the site visit, it is likely the site has previously been used for grazing. Fencing and/or steep banks will have prevented stock access to the stream.

Mature trees were common throughout the site, including some trees that were evident in the 1942 historic aerial photographs (Appendix A). The trees are almost exclusively exotic species, including poplar dominated shelterbelt trees on much of the property boundary. Several large pines, macrocarpa, wattle and gum trees were present in association with the stream and an adjacent fence line (Figure 7). Elsewhere amenity plantings were associated with the house and an orchard was located in the northeastern corner, to the south of the stream.

The stream banks were densely vegetated with a mix of exotic shrubs and groundcover. Ivy was common along the untended stream banks.

Native species were uncommon within the site, typically comprising self-seeded grasses such as *Carex* near the stream. A large tī kōuka/cabbage tree was located mid-way along the stream as well as occasional harakeke/flax. A large old akiraho (*Olearia paniculata*) was present near the stands of mature exotics to the south of the stream.

Figure 7: Grasslands and mature trees associated with the stream and fencelines

3.6 Terrestrial fauna

Incidental observations during the site walkover confirmed the presence of hare and pukeko utilising the site and neighbouring property. A range of common urban and peri-urban bird species can be expected to utilise the site and the mature trees and orchard for roosting, nesting and food resources. A range of common pest mammals such as rats, mice, mustelids, rabbits and hedgehogs can all be expected from the site due to the current rural nature.

Due to the long history of rural land use and vegetation modification, the site is unlikely to provide habitat for threatened or at risk native species such as lizards or bats.

3.7 Summary of ecological values

Overall, the site comprises a highly modified environment used for rural purposes for an extended period. While the section of Taranaki Stream that bisects the site has been historically modified, it comprises the most notable ecological feature within the site. The stream provides habitat for a small range of common macroinvertebrates and native fish species. Six native fish species, including three species listed as 'at risk', and the exotic brown trout, have been recorded from the stream reaches surrounding the site and can be expected to also permanently or temporarily occupy the site stream at times. Common bully and longfin eel ('at risk – declining') were observed during the site visit. While the vegetation within the site is dominated by exotic species, including several weed species, and is not ecologically significant, the narrow band of riparian vegetation is providing some important functions for the Taranaki Stream. The vegetation provides patchy shading cover to the stream bed, helps to stabilise the typically steep stream banks and provide inputs of leaf litter, terrestrial insects and other debris that contribute food and resources for instream biota.

4 PROPOSED DEVELOPMENT

4.1 Proposed rezoning and development

DEXIN is proposing to rezone the rural property at 1250 Main North Road to include it within the Special Purpose Zone (Pegasus Resort) (SPZ(PR)). In addition, two new activity areas are proposed to provide for a range of agricultural tourism activities and a limited amount of medium density residential activities.

An outline development plan and proposed site development plan has been developed for the site. The proposed plan includes terraced residential dwellings on the north, east and south site boundaries surrounding a central market area and open spaces, with parking and vegetated bunding on the western boundary with Main North Road. The Taranaki stream would be bounded to the south by the marketplace terraces and be enhanced through planting. Amenity access across the stream via walkways and footbridges are proposed. One vehicle crossing of the stream is proposed to the west of the site.

4.2 Ecological effects of proposed rezoning and development

The proposed development would result in a change from rural to urbanised land use, resulting in potential ecological effects including:

- The potential for sediment discharge from the site during construction.
- An increase in impermeable surfaces and associated stormwater runoff following development.
- Removal of mature trees and riparian vegetation and associated habitat loss.
- Bank modifications and construction in proximity to the stream.

4.2.1 Sediment discharge

The proposed development areas through the site are predominantly flat or gently sloping so are unlikely to need extensive earthworks for recontouring. Localised earthworks will be required, including in proximity to the stream. Development and implementation of an erosion and sediment control plan can be expected to be required as part of Waimakariri District Council and Environment Canterbury requirements, to ensure the protection of receiving environments.

4.2.2 Stormwater management

Proposed development of the site will result in increased imperviousness and a need for stormwater management to treat and attenuate stormwater runoff and protect downstream receiving environments. Stormwater management requirements for the site have been considered as part of the proposed rezoning (Eliot Sinclair 2022). The options for stormwater management are intended to provide attenuation storage to maintain runoff to pre-development levels, for storm events up to the 1 in 50 year events. In addition, stormwater from trafficked areas would be treated before discharge to the Taranaki Stream.

The infrastructure service report (Eliot Sinclair 2022) recommends the adoption of a treatment train approach to protect water quality and stream hydrology. The options include the utilisation of the northern gully for stormwater management, including the use of wetlands for water quality management and storm event attenuation.

4.2.3 Vegetation removal

While the vegetation within the site is not ecologically significant, it is providing a functional value, particularly the narrow band of riparian vegetation beside the stream. The vegetation provides a patchy mosaic of shading cover to the stream bed, helps to stabilise the typically steep stream banks and provide inputs of leaf litter, terrestrial insects and other debris that contribute food and resources for instream biota.

The development proposal would include the removal of the majority of vegetation through the centre of the site to facilitate construction of the market buildings. This would likely include many of the mature trees near the stream. The smaller riparian shrubs and groundcover are dominated by weedy exotic species. It is proposed to retain some vegetation in the northwestern corner of the site, within the flood prone area, including the established orchard.

Removal of the scattered amenity trees through the site will result in a loss of roosting and nesting habitats within the site. These trees likely provide resources for a range of common birds, and there are similar resources available in the surrounding area, so the ecological effect of the tree removal is assessed as low. The proposed development plan includes extensive planting throughout the site, to provide amenity values and buffering of the site boundary. Strategic replanting of the site with native dominated species is recommended to increase indigenous biodiversity values and improve food resources for native bird species in an area where these are otherwise scarce. While there will be a lag period while the planted vegetation establishes, in the medium and long term an increase in biodiversity values and habitat availability can be anticipated for the site.

Removal of shading riparian vegetation can result in instream habitat changes as a result of increased light levels and result in bank instability if not managed carefully. Nonetheless, replacement planting of the current exotic and weed dominated riparian cover with indigenous species is supported as a component of the proposed development. Development of a riparian enhancement plan is recommended, prepared in conjunction with an ecologist. Such a plan would combine suitable riparian species intended to maintain bank stability and provide stream shade, in conjunction with amenity access to allow resident and visitor interactions with the stream. A minimum 5m riparian width is recommended. With appropriate species choice and ongoing maintenance, shading cover and stream inputs would be quickly re-established. Riparian enhancement through the site would extend the indigenous riparian buffer provided by streamside replanting through the adjacent Ravenwood development and link to established downstream cover.

Overall, the proposed rezoning and site development offers an opportunity to enhance and improve the terrestrial biodiversity values across the site.

4.2.4 Construction in proximity to the stream

The indicative development plan involves structures and associated construction near to the stream, including an access road crossing of the stream, pedestrian crossings and marketplace buildings and associated terraces abutting the stream channel. The intent of the design is to allow future residents and visitors to interact with the stream.

A vehicle crossing of the stream is proposed. To minimise adverse effects on the stream, bridged stream crossings are recommended. If a culverted crossing of the stream is proposed, the structure will need to consider the requirements of the National Policy Statement for Freshwater Management 2020 (NPS-FM) and National Environmental Standards for Freshwater 2020 (NES-F) and be designed and installed to avoid restricting fish passage past the structure.

The stream throughout the site is incised, with steep banks and areas of swift flows where bed gradient changes occur. Some of these features are associated with modifications to the stream related to the former flour mill and are an interesting historical feature. There may be opportunity to recontour banks in some areas, to soften bank gradients, increase bank stability and ensure bank slope replanting is feasible. Such measures may also increase the flood storage capacity of the stream channel and increase stream and riparian zone interactions where they are currently limited.

Careful consideration at detailed design and resource consenting stage will be required if modifications to the stream banks and channel are proposed. Design will need to consider the historic modifications to the stream (including the remaining indicators that may be of historic interest) and if there is a preference that these are retained. Any modifications to the banks or stream bed would require resource consent and should consider the requirements of the NPS-FM and district and regional plan rules. Under the NPS-FM the loss of river (including stream) values is to be preferentially avoided. Any proposal to undertake instream works would need to demonstrate that the values of the stream would be maintained or preferentially enhanced and that the effects management hierarchy[3] has been applied

[3] effects management hierarchy, in relation to natural inland wetlands and rivers, means an approach to managing the adverse effects of an activity on the extent or values of a wetland or river (including cumulative effects and loss of potential value) that requires that:
(a) adverse effects are avoided where practicable; and
(b) where adverse effects cannot be avoided, they are minimised where practicable; and
(c) where adverse effects cannot be minimised, they are remedied where practicable; and
(d) where more than minor residual adverse effects cannot be avoided, minimised, or remedied, aquatic offsetting is provided where possible; and
(e) if aquatic offsetting of more than minor residual adverse effects is not possible, aquatic compensation is provided; and
(f) if aquatic compensation is not appropriate, the activity itself is avoided

in relation to adverse effects of the works. Structures in proximity to the stream would need to demonstrate that they will not limit or create a risk to the natural functioning or values of the stream or increase flood risk or erosion potential.

4.3 Discussion

Overall, the ecological values of the majority of the site are low, and those areas of ecological interest and value (the Taranaki Stream) are to be maintained within the development plan.

The development of the site offers an opportunity to improve and enhance biodiversity values within the site and enhance the riparian habitat values of the site stream.

Ecological design input will be required at the detailed design and Resource Consent stages to ensure that the development design maintains riparian margins and protects or improves instream habitat values for aquatic biota.

5 REFERENCES

Dunn N.R., Allibone R.M., Closs G.P., Crow S.K., David B.O., Goodman J.M., Griffiths M., Jack D.C., Ling N., Waters J.M. & Rolfe J.R., 2018. Conservation Status of New Zealand freshwater fishes 2017. Department of Conservation.

Eliot Sinclair 2022. Infrastructure Servicing Report Pegasus Mākete. Prepared for Dexlin Investments Limited, June 2022.

Etheridge, Z. and Whalen, M. 2019. Waimakariri Land and Water Solutions Programme Technical Assessment Overview. Report No. R19/73. Environment Canterbury Regional Council.

PDP 2015. Assessment of environmental effects for Ravenswood: Stage 1. Prepared for Ravenswood Developments Limited.

Stark, J. D. 1998. SQMCI: a biotic index for freshwater macroinvertebrate coded-abundance data. New Zealand Journal of Marine and Freshwater Research 32: 55- 66.

Stark, J. D.; Boothroyd, I. K. G; Harding, J. S.; Maxted, J. R.; Scarsbrook, M. R. 2001. Protocols for sampling macroinvertebrates in wadeable streams. New Zealand Macroinvertebrate Working Group Report No. 1. Prepared for the Ministry for the Environment. Sustainable Management Fund Project No. 5103. 57p.

Stark J.D., Maxted J.R. (2007b). A user guide for the macro invertebrate community index. Prepared for the Ministry for the Environment. Cawthron Report No.1166. 58 p.

Appendix A:

Historic aerial photographs

1942 (Retrolens)

1961 (Retrolens)

1963 (Retrolens)

1973 (Retrolens)

1981 (Retrolens)

2000 (Retrolens)

2004 (Google Earth)

2006 (Google Earth)

2008 (Google Earth)

2009 (Google Earth)

2014 (Google Earth)

2016 (Google Earth)

2017 (Google Earth)

2019 (Google Earth)

2022 (Google Earth)

Appendix B:

Raw macroinvertebrate data

Group	Taxa	MCI score	Count
Mayfly	*Deleatidium*	8	5
Caddisfly	*Aoteapsyche*	4	4
	Olinga	9	1
	Orthopsyche	9	43
	Pycnocentria	7	78
	Triplectides	5	1
Bug	*Microvelia*	5	8
Beetle	*Elmidae*	6	6
True Fly	*Austrosimulium*	3	3
	Chironomus	1	1
	Mischoderus	4	1
Crustacea	*Paracalliope*	5	22
Mollusc	*Physella (Physa)*	3	2
	Potamopyrgus	4	45
Oligochaetes		1	3
Number of Taxa			**15**
EPT Value			**6**
Number of Individuals			**223**
% EPT			**59.2**
% EPT Taxa			**40.0**
MCI			**98.7**
QMCI			**6.24**

Before the Hearings Panel
At Waimakariri District Council

Under	the Resource Management Act 1991
In the matter of	the Proposed Waimakariri District Plan

Joint Witness Statement – DEXIN rezoning request (planning)

Date: 6 August 2024

INTRODUCTION:

1 This Joint Witness Statement (JWS) relates to expert conferencing on the DEXIN Investments Ltd (DEXIN) request to rezone the land at 1250 Main North Road, Pegasus from Rural Lifestyle Zone to Special Purpose Zone (Pegasus Resort) (SPZ(PR)).

2 The following participants were involved in this conferencing and authored this JWS:

(a) Ms Melissa Pearson, representing DEXIN; and

(b) Ms Jessica Manhire, representing the Waimakariri District Council (WDC).

3 Meetings were held online between Ms Pearson and Ms Manhire on the 17 July 2024 and 6 August 2024. This JWS has resulted from these meetings.

4 In preparing this statement, the experts have read and understand the Code of Conduct for Expert Witnesses as included in the Environment Court of New Zealand Practice Note 2023[1].

PURPOSE AND SCOPE OF CONFERENCING:

5 The conferencing was focused on matters identified in Minute 28, dated 13 June 2024, in relation to reply report questions for Hearing Stream 12A report authors, and direction contained in Minute 30 on the request for extra time for reply report for Hearing Stream 12A-DEXIN, dated 9 July 2024.

6 The experts discussed the request contained in Minute 28 to provide any updated recommendations in respect to the DEXIN updated ODP and provisions, including the density limitation of 27 dwellings in Activity Area 7B.

ACTIONS TAKEN:

7 Ms Pearson and Ms Manhire have worked alongside the urban designers (Mr Ed Jolly and Mr James Lunday) to ensure all experts are relying on the same version of material to inform the two joint witness statements.

MATTERS THAT THE EXPERTS AGREE ON:

[1] https://www.environmentcourt.govt.nz/assets/Practice-Note-2023-.pdf

8 Ms Pearson and Ms Manhire agree that Activity Area 7B be renamed from 'Mākete Medium Density Residential' to 'Mākete Residential'. This renaming is informed by the urban design JWS that concluded *"that on balance the reduction and limit of units, changes to the ODP including the introduction of communal openspace within both areas, the provision of landscape setbacks and the design controls introduced through the urban design guidelines will result in appropriate urban design outcomes for both of the activity areas and that the 27 residential units are appropriate for the site"*[2]. Both Ms Pearson and Ms Manhire agree that the level of residential development enabled by the SPZ(PR) chapter provisions is not the same intensity as enabled in the Medium Density Residential Zone in the rest of the District. As the anticipated development in Activity Area 7B is a bespoke type of development, a bespoke name that does not reference medium density is appropriate.

9 Ms Pearson and Ms Manhire agree that, if the Panel decide to approve the DEXIN request to include the site at 1250 Main North Road within the SPZ(PR), that the marked-up provisions included in Appendix A to this JWS would be appropriate to support that rezoning. Appendix A is intended to be a cohesive recommendation to respond to points relating to the SPZ(PR) chapter that were raised in submissions from both Sports and Education Corporation (for completeness) and DEXIN to best assist the Panel making their decisions. The expert conferencing process has resulted in an agreed set of provisions that address the DEXIN rezoning request, including amendments to address recommendations as per the urban design JWS. The agreements on provisions set out in this JWS are not indicative of Ms Manhire's final recommendation on the DEXIN rezoning request and do not address matters outside the expertise of the planners in attendance with respect to outstanding transportation issues. However, some recommended amendments to provisions have been agreed by Ms Pearson and Ms Manhire where there was a clear drafting solution to resolve the transport issues raised, either in full or in part.

10 During the 17 July and 6 August meetings, Ms Pearson and Ms Manhire reached agreement on the following:

(a) The wording of the Introduction and the description of all activity areas;

[2] DEXIN rezoning request (urban design) JWS, para 13

(b) The renaming of Activity Area 7B from 'Mākete Medium Density Residential' to 'Mākete Residential' in the ODP, SPZ(PR) Chapter and Pegasus Resort Urban Design Guidelines;

(c) All SPZ(PR) objectives;

(d) All SPZ(PR) policies, however see comments in paragraph 12 below with respect to SPZ(PR)-P3;

(e) All SPZ(PR) rules, however see comments in paragraph 14 and 15 below with respect to rules applying to 65A Mapleham Drive;

(f) All SPZ(PR) built form standards, however see comments in paragraph 13 with respect to the proposed inclusion of an additional built form standard;

(g) All SPZ(PR) matters of control or discretion;

(h) The definitions of 'Mākete tourism activity' and 'Commercial golf resort activity'; and

(i) SUB-S1, including Table SUB-1: Minimum allotment sizes and dimensions with respect to the SPZ(PR).

11 Ms Pearson understands that there are other proposed amendments to SUB-S1 as a result of a separate discussion with Ms Joanne Sunde representing Howard Stone, but that the proposed solution to address the Howard Stone requested relief does not impact the subdivision minimum lot sizes for the balance of land in the SPZ(PR).

12 Ms Manhire and Ms Pearson discussed the cross reference to the Pegasus Resort Urban Design Guidelines that Ms Pearson requested to be inserted into to SPZ(PR)-P3 in her evidence on Hearing Stream 10. Ms Manhire disagreed with inserting the cross reference in her Right of Reply for Hearing Stream 10 on the basis that "*referring to an external document that can be amended would not maintain amenity values*". Ms Manhire and Ms Pearson have now discussed the Pegasus Resort Urban Design Guidelines further and both agree that they in fact form part of the SPZ(PR) chapter (being APP2 of that chapter) rather than being an external document that can be amended. Ms Pearson also pointed out that the Pegasus Resort Urban Design Guidelines are already cross referenced extensively throughout the notified version of the SPZ(PR) chapter and that a similar reference in SPZ(PR)-P3 would be consistent with this approach. As such, Ms Manhire and Ms Pearson now agree that the requested amendment to

SPZ(PR)-P3 requested in Ms Pearson's Hearing Stream 10 evidence can be supported. Ms Manhire will record her amended response to this issue as part of the Hearing Stream 12A Right of Reply.

13 Ms Pearson and Ms Manhire agree that an additional built form standard can be included that limits the scale of residential blocks in Activity Area 7B to a maximum of 3 adjoining units. Both accept the urban design JWS rationale that *"this would minimise long building facades or continuous terraces that are not consistent with the master plan and could potentially lead to inappropriate urban design outcomes"*[3].

14 As a separate issue, Ms Manhire and Ms Pearson discussed the issue of scope with respect to the misalignment of the SPZ(PR) zoning and the Pegasus Resort ODP with respect to 65A Mapleham Drive, as raised in the Hearing Stream 12A officer's report. Ms Manhire and Ms Pearson both agree that, if the Panel considered there was scope to include the property at 65A Mapleham Drive in the Pegasus Resort ODP, then the most appropriate activity area would be Activity Area 7A for the reasons set out in Ms Pearson's Hearing Stream 12A evidence. For completeness, Ms Manhire and Ms Pearson have agreed to leave in the amendments to the SPZ(PR) chapter that would be required to resolve the anomaly, as included in Ms Pearson's evidence, in the interests of assisting the Panel with their decision making. These amendments are footnoted in Appendix A as *"Amendments needed if 65A Mapleham Drive is included in Activity Area 7A of the ODP.*"

15 However, both Ms Manhire and Ms Pearson consider that it will be difficult for the Panel to find scope to make this change as it was an error identified during the preparation of the section 42A report as opposed to an issue raised in either a submission or further submission. Ms Manhire and Ms Pearson also considered whether it could be resolved as either consequential or alternative relief, or whether the error could be considered minor and resolved as a clause 16 amendment. The planners both agreed that neither of these avenues are able to be utilised in this circumstance as the amendment would be neither consequential, alternative to other requested relief, or minor.

REASONS FOR THE ADDITIONAL AMENDMENTS AGREED ON AS PART OF EXPERT PLANNING WITNESS CONFERENCING:

[3] DEXIN rezoning JWS (urban design), para 10.

16 Appendix A to this JWS includes additional text agreed to as part of the expert planning witness conferencing, shown in blue text with underline and ~~strike out~~. Both Ms Pearson and Ms Manhire support these amendments, which have been recommended to:

(a) Address concerns raised by WDC transportation and urban design experts or Ms Manhire with respect to the Mākete tourism activity definition; or

(b) Fix errors in drafting or cross referencing identified during the conferencing (these recommended changes are not discussed explicitly below but account for all other blue text amendments in Appendix A not otherwise mentioned).

Amendments to address transportation issues

17 The transportation memo from Mr Shane Binder identified several outstanding transportation issues with the proposed DEXIN rezoning. Ms Manhire and Ms Pearson discussed the extent to which there were opportunities in the SPZ(PR) provisions to address some of the outstanding issues, noting that consideration of technical transport matters is outside their areas of expertise as planners.

18 Ms Manhire identified potential gaps in the controlled activity rule SPZ(PR)-R2 for residential activity in Activity Area 7B and for non-compliance with SPZ(PR)-BFS13 relating to infringing the maximum residential cap for Activity Area 7B. Ms Manhire and Ms Pearson both agreed that it is important to ensure that WDC has the ability to consider the transportation matters in SPZ-PR-MCD2 to manage design elements such as internal roading and pedestrian connections, provision of on-site car-parking, circulation and manoeuvring space that are required for the development of residential activities in Activity Area 7B.

19 Similarly, Ms Manhire identified that SPZ-PR-MCD2 did not explicitly reference the need for adequate internal pedestrian connections (a key concern for Mr Ed Jolly from an urban design perspective). The planners agree that this will be a relevant consideration for council staff when processing resource consents for developments in both Activity Area 7B and Activity Area 8 and, as such, it is appropriate to include it as part of the transportation MCD.

20 The amendments in Appendix A that are recommended in response to transportation issues raised are summarised follows:

(a) Including SPZ-PR-MCD3 – Transportation (for Activity Area 7B only) as a matter of control in SPZ(PR)-R2 Residential activity. This ensures that all relevant transportation matters can be considered when processing controlled activity consents for residential activities in Activity Area 7B;

(b) Including SPZ-PR-MCD3 – Transportation as a matter of discretion when SPZ(PR)-BFS13 is not complied with, i.e. if more than the maximum number of residential units is applied for in Activity Area 7B. This ensures that all relevant transportation matters can be considered when processing restricted discretionary activity consents if more intensive residential development is applied for; and

(c) Including '*in relation to Activity Area 7B and Activity Area 8, the provision of adequate internal pedestrian connections*' in SPZ-PR-MCD3 as new matter (6). This ensures that the provision of internal pedestrian connections is considered alongside other similar transportation matters already listed in this MCD, including safe vehicle access, on-site parking and manoeuvring, road and intersection design etc, when processing a consent for an activity where SPZ-PR-MCD2 is a matter over which control is reserved or discretion is restricted.

<u>Amendments to address urban design issues</u>

21 The initial urban design assessment from Mr Jolly[4] identified several urban design issues with the DEXIN rezoning request, the majority of which related to the content and level of detail provided in the ODP and the Pegasus Resort Urban Design Guidelines. Ms Manhire and Ms Pearson both agree that the content of the ODP and design guidelines is predominantly within the expertise of urban designers as opposed to planners, however there were opportunities to address some of the issues raised by Mr Jolly through the SPZ(PR) provisions, particularly with respect to open space. The ODP has now been updated as per the urban design JWS to address these concerns and the urban designers are now in agreement that the DEXIN rezoning request can be supported from an urban design perspective.

22 Ms Manhire identified opportunities in SPZ(PR)-P5, SPZ(PR)-R2 and SPZ-PR-MCD4 to strengthen consideration of how open space is provided in Activity Areas 7B and Activity Area 8. Ms Manhire and Ms Pearson both agree that using the term 'open space' in provisions would allow for the consideration

[4] Urban Design Assessment appended to the DEXIN rezoning request (urban design) JWS, page 8-17

of both the amount of private open space proposed for residential units as well as the need for communal open space to support the mākete residential development and/or the development of Mākete tourism activities.

23 The amendments in Appendix A that are recommended in response to urban design issues raised (particularly open space) are summarised as follows:

(a) A new clause 8 inserted into SPZ(PR)-P5 to clarify that consideration of providing '*accessible, useable and attractive open space*' in Activity Areas 7B and 8 is part of encouraging high quality urban design, which is the intent of the policy;

(b) Including SPZ-PR-MCD4 – Amenity values (for Activity Area 7B only) in SPZ(PR)-R2 Residential activity to ensure all relevant amenity effects can be considered when processing controlled activity consents for residential activities in Activity Area 7B, including the provision of open space;

(c) Including 'the provision of open space' in SPZ-PR-MCD2(2) as new matter (2)(j). This ensures that the provision of open space is considered alongside other similar design matters already listed in this MCD, including landscaping, streetscape design, internal walkways paths and cycleways etc, when processing a consent for an activity where SPZ-PR-MCD2 is a matter over which control is reserved or discretion is restricted. Ms Manhire and Ms Pearson agree that the insertion of this wording does not add any additional consenting requirements on applicants or broaden the scope of the matter as it applies across the SPZ(PR), it is simply a signal to a consenting officer that the provision of open space is one of the elements of a design proposal that should be considered when assessing the proposal against the Pegasus Resort Urban Design Guidelines. While Ms Pearson considers that designing adequate open space for a proposal for residential activity or for Mākete tourism activities is already an inherent requirement when reading the Pegasus Resort Urban Design Guidelines, she agrees that an explicit reference to open space gives the matter equal prominence when reading SPZ-PR-MCD2(2) as a whole; and

(d) The addition of a new built form standard to manage the number of adjoined residential units, for the reasons discussed in paragraph 13 above.

<u>Amendments to the Mākete tourism activity definition</u>

24 Ms Manhire and Ms Pearson both agree that excluding takeaway bars from the 'restaurants' component of the Mākete tourism activity definition is appropriate as it is an activity that does not fit well with the tourism purpose of the SPZ(PR) and would be better located in a town centre such as Ravenswood or Pegasus Town. All other amendments to the definition of Mākete tourism activity are agreed to for the reasons set out in Ms Pearson's Hearing Stream 12A evidence.

MATTERS THAT THE EXPERTS DISAGREE ON:

25 There are no matters of disagreement.

Date: 6 August 2024

Signatories

. . . . . .

JESSICA MANHIRE – PLANNER,

WAIMAKARIRI DISTRICT COUNCIL

. . . . . .

MELISSA PEARSON – PLANNER, DEXIN

INVESTMENTS LTD

APPENDIX A

Special Purpose Zone - Pegasus Resort

DEXIN Further Submission Amendments are shown in black text with insertions underlined and deletions ~~struck out~~.

Pegasus Resort Chapter Officer's Report for Hearing Stream 10 and Right of Reply Recommended Amendments are shown in in red text with underline and ~~strike out~~ as appropriate.

S&E Corporation Requested Amendments as per Evidence of Melissa Pearson in response to issues raised in the Officer's Report for Hearing Stream 10 are shown in orange text with underline.

Makete Rezoning Request Officer's Report for Hearing Stream 12A Recommended Amendments are shown in pink text with underline and ~~strike out~~.

DEXIN Requested Amendments as per Evidence of Melissa Pearson in response to issues raised in the Officer's Report for Hearing Stream 12A are shown in purple text with underline and ~~strike out~~.

Additional text agreed to as part of the JWS on 17 July 2024 are shown in blue text with underline and ~~strike out~~.

Introduction

The purpose of the Special Purpose Zone (Pegasus Resort) is to provide for a high-quality visitor resort centred around the existing 18-hole international championship golf course, and an adjacent tourism Mākete and residential area to provide activities that are complementary to the resort. The zone provides for hotel and visitor accommodation, existing large residential lots, ~~medium density~~ Mākete rResidential area, a spa and hot pool complex, golf education and golf country club facilities and a limited mix of commercial and associated ancillary activities, that support tourism activities associated with the Pegasus Resort and Mākete Village.

The zone is divided into seven distinct activity areas (references correspond to SPZ(PR)-APP1 and are referred to in the Activity Area Rules Tables as follows):

- Activity Area 1: Spa.
- Activity Area 2: Spa Village.
- Activity Area 3: Golf Square.
- Activity Area 4: Golf Village.
- Activity Area 5: Village Fringe.
- Activity Area 6: Golf Course.
- Activity Area 7A: Low Density Residential.
- Activity Area 7B: Mākete ~~Medium Density~~ Residential.
- Activity Area 8: Mākete Village.

The key differences between these activity areas are the types of development enabled (as guided by SPZ(PR)-APP1) and the extent to which activities such as commercial golf resort activity and visitor accommodation can occur. This recognises that some activity areas predominantly

perform functions relating to the existing golf course, or existing residential areas, while others will enable other major tourism related activities, and to allow each of these areas to develop a distinct character guided by the Pegasus Resort Urban Design Guidelines (design guidelines) (Appendix 2).

Activity Area 1 – Spa provides for tourism activities, centred around the development of a Spa/Wellness and Hot Pool Complex, aimed at being a regionally significant tourism destination. This complex necessitates and provides for other activities that support the visitor experience, for example, a landmark hotel defining the main entrance to the golf course on the corner of Pegasus Boulevard and Mapleham Drive and an at-grade car park that services the Spa/Wellness and Hot Pool Complex and Hotel.

Activity Area 2 – Spa Village provides for a range of supporting commercial and visitor accommodation activities that will allow for visitors to cater for their stay. It will provide for visitor accommodation opportunities as an alternative to a hotel experience as well as commercial golf resort activities set out in accordance with the ODP to create a 'village' look and feel. Activity Area 2 will not provide for residential activities or other commercial activities typically associated with a neighbourhood or local centre – any commercial golf resort activity will need to demonstrate a link to supporting the key tourism activities provided for in the remainder of the zone.

Activity Area 3 – Golf Square contains the existing golf club facilities. The architectural design of these buildings is intended to set the tone for the built form of the rest of the zone, as set out in the Pegasus Design Guidelines. Development in this activity area is expected to be limited to a future country club and associated activities directly related to the operation of the golf course, as opposed to visitor accommodation or commercial golf resort activities found elsewhere in the zone.

Activity Area 4 – Golf Village is a development area for activities that support the primary golf course activity. Activities enabled by

the ODP include an already consented Hotel and a Golf Education Facility, both of which are likely to be used by tourists visiting the zone for either golf instruction or playing the course for leisure or competition.

Activity Area 5 – Village Fringe is an active part of the existing golf course, however it has been identified as a separate activity area as it needs to provide for the relocation of two golf holes in order to enable the development of Activity Areas 1 and 2. It also serves as a buffer area between visitor accommodation and commercial golf resort activities found in the Spa Village and the residential sites located to the north.

Activity Area 6 – Golf Course contains the balance of the existing golf course not covered by the Village Fringe Activity Area and enables the ongoing operation and development of this course as a major sports facility.

Activity Area 7A – Low Density Residential contains eight enclaves of residential sites with an average lot size of approximately 2000m². These residential sites were created at the same time as the golf course development and have been designed to have aspects overlooking the golf course open space areas. The intention is for these lots to maintain their semi-rural appearance and outlook over the golf course with no further intensification anticipated. Activity Area 7A also include ~~two~~ three[1] additional residential sites that were created as balance lots and are now being developed for residential activity.

Activity Area 7B – Mākete ~~Medium Density~~ Residential provides for ~~medium density~~ residential activity on the periphery of the Mākete Village. This area provides for multi-unit residential developments and a mix of duplex, ~~and~~ terrace style, and stand-alone residential ~~dwellings~~units with a high level of design quality.

Activity Area 8 – Mākete Village provides for a range of tourism and supporting commercial activities that will provide a visitor destination to complement Pegasus Resort. The foundation of the village will be a market area to provide for local producers to directly retail produce and to provide spaces to develop and enhance waahi taonga and mahinga kai. The area will be supplemented by visitor attractions that will showcase local artisan produce and provide educational and entertainment experiences to visitors to highlight sustainable production of food and materials and to reflect the important cultural values of the area.

The provisions in this chapter are consistent with the matters in Part 2 - District Wide Matters - Strategic Directions and give effect to matters in Part 2 - District Wide Matters - Urban Form and Development.

As well as the provisions in this chapter, district wide chapter provisions will also apply where relevant.

[1] Consequential amendment if 65A Mapleham Drive is included in Activity Area 7A of the ODP.

Objectives	
SPZ(PR)-O1	**Tourist destination** The establishment of a regionally significant tourist destination based around an 18-hole international championship golf course. This provides for ~~with existing large residential sites, incorporating~~ hotel and visitor accommodation, spa/wellness and hot pool complex, golf education facility, golf country club[2], low density residential and ~~medium density~~ mākete residential activities and mākete tourism activities with ~~and~~ limited small-scale commercial activity and ancillary activity.
SPZ(PR)-O2	**Design components** The development of a ~~spa/wellness and hot pool complex~~ tourism resort[3] centred on a spa village, and ~~tourism and residential activities centred on~~ a Mākete Village within a framework of open space and recreation facilities, that reflect the local open space, recreational, landscape, cultural and visual amenity values and achieve urban design excellence consistent with the Pegasus design guidelines.
Policies	
SPZ(PR)-P1	**Outline development plan** Use and development of land shall: 1. be in accordance with the development requirements and fixed and flexible elements in SPZ(PR)-APP1, or otherwise achieve similar or better outcomes, except in relation to any interim use and development addressed by (3) below; 2. ensure that development: a. results in a vibrant, mixed-use area that achieves a complementary mix of hotel and visitor accommodation, spa/wellness and hot pool complex, golf education facility, golf country club,[4] mākete tourism, residential activities and small-scale commercial activities and ancillary activities; b. contributes to a strong sense of place, and a coherent, functional and safe neighbourhood; c. retains and supports the relationship to, and where possible enhances recreational features; d. is in accordance with the Pegasus design guidelines; e. achieves a high level of landscape, visual and amenity values; and f. encourages mixed use developments that are in accordance with SPZ(PR)-APP1 as a means of achieving coordinated, sustainable and efficient development outcomes; and g. provides an authentic reflection of the cultural values of the area in collaboration with mana whenua; and [5] 3. where the land is in interim use, the interim use shall not compromise the timely implementation of, or outcomes sought by, SPZ(PR)-APP1.
SPZ(PR)-P2	**Infrastructure services** Ensure the efficient and effective provision of infrastructure that avoid, remedy or mitigate any adverse effects on water quality and landscape, visual and amenity values and are consistent with the design approach taken for Pegasus township.

[2] S&E Corp [416.2]

[3] S&E Corp [416.3]

[4] S&E Corp [416.4]

[5] DEXIN [377.1, 377.2, 377.3, 377.15]

SPZ(PR)-P3	**Landscape and character** Provide for the landscape character values of the golf course ~~country club facilities~~ and the background mountain range, particularly as viewed from public places, through master-planning, landscape design and massing of buildings in accordance with the Pegasus Resort Urban Design Guidelines SPZ(PR)-APP2.
SPZ(PR)-P4	**Provision of commercial activities** Ensure that the amenity values for visitors to the resort and the residents living in Activity Areas 7A and 7B is maintained or enhanced through: 1. only providing for commercial activities that meet the definition of commercial golf resort activity or mākete tourism; 2. having individual and maximum caps on the floor area of commercial golf resort activity; and 3. managing the compatibility of activities within and between developments, especially for activities adjacent residential areas, through: a. controlling site layout, landscaping and design measures, including outside areas and storage; and b. controls on emissions including noise, light and glare.
SPZ(PR)-P5	**Urban design elements** Encourage high quality urban design by: 1. requiring all development to be in accordance with SPZ(PR)-APP1, which establishes an integrated and coordinated layout of open space; buffers and building setbacks; building height modulation and limits; roading purpose; built form; and streetscape design; 2. requiring all subdivision and development to be in accordance with the Pegasus design guidelines; 3. encouraging design responses that respond to the cultural values and visual character of the area; 4. encouraging development in Activity Areas 1-6 to be consistent with the existing distinctive architectural style of the golf resort buildings to ensure the character is retained; 5. encouraging development in Activity Area 8 to be consistent with the distinctive architectural style of New Zealand rural buildings; 6. efficient design of vehicle access ways and car parking, which is adequately screened from Main North Road/State Highway 1 (where applicable) and Pegasus Boulevard with appropriately designed landscaping; ~~and~~ 7. provision of secure, visible and convenient cycle parking~~.~~; and 8. provision in Activity Area 7B and Activity Area 8 of accessible, useable and attractive open space.
SPZ(PR)-P6	**Open areas** Recognise the important contribution that the open areas provided by the Village Fringe Activity Area and the Golf Course Activity Area that adjoin the visitor accommodation and village areas make to the identity, character, amenity values, and outlook of the zone for residents and visitors.
SPZ(PR)-P7	**Golf activity** Enable golf course activities and ancillary facilities that: 1. support the golf course within the Golf course activity area; and 2. provide for development of the resort while ensuring that Pegasus Golf Course remains an 18 hole championship golf course.
SPZ(PR)-P8	**Village fringe** Provide for the relocation of two golf holes within the village fringe.

SPZ(PR)-P9	**Residential development** Provide for residential development located within Residential activity areas, while ensuring amenity values resulting from views over the golf course are maintained with no intensification of residential activity beyond what is provided for in the Activity Rules and Built Form Standards.

Activity Rules

SPZ(PR)-R1 Construction or alteration of or addition to any building or other structure	
Activity status: PER Where: 1. the activity complies with all built form standards (as applicable).	**Activity status when compliance not achieved: as set out in the relevant built form standards**
SPZ(PR)-R2 Residential activity	
Activity status: PER Where: ~~1.~~ the activity occurs within Activity Area 7A excluding Lot 206 DP 412982[6], Lot 212 DP 403716 and Lot 230 DP 417391); ~~or~~ ~~2. the activity occurs within Activity Area 7B.~~	**Activity status when compliance is not achieved: DIS**
Activity Status: CON Where: 1. the activity occurs within: a. Lot 206 DP 412982, [7] Lot 212 DP 403716 ~~and~~ or Lot 230 DP 417391; or b. Activity Area 7B; and 2. only one residential unit per site; and 3. design of development in Activity Area 7B shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control are restricted to:** SPZ-PR-MCD2 - ~~Residential design controls~~ Design Considerations SPZ-PR-MCD3 – Transportation (for Activity Area 7B only) SPZ-PR-MCD4 – Amenity values (for Activity Area 7B only) SPZ-PR-MCD8 - Flooding hazard	**Activity status when compliance is not achieved: DIS**

Activity status: NC Where: 1. the activity occurs within Activity Areas 1 to 6, and 8.	**Activity status when compliance is not achieved: N/A**

[6] Amendments needed if 65A Mapleham Drive is included in Activity Area 7A of the ODP.

SPZ(PR)-R3 Residential unit	
Activity status: PER Where: 1. the activity occurs within Activity Area 7A including Lot 206 DP 412982[8], Lot 212 DP 403716 and Lot 230 DP 417391); or 2. the activity occurs within Activity Area 7B.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R4 Minor residential unit	
Activity status: PER Where: 1. the activity occurs within Activity Area 7A (including Lot 212 DP 403716 and Lot 230 DP 417391); 2. the maximum GFA of the minor residential unit shall be 80m^2 (excluding any area required for a single car vehicle garage or carport); 3. there shall be only one minor residential unit per site; and 4. parking and access shall be from the same vehicle crossing as the principal residential unit on the site.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R5 Accessory building or structure	
Activity status: PER	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R6 Major sports facility	
Activity status: PER Where: 1. the activity occurs within Activity Areas 3, 5 and 6; 2. the outdoor lighting of the major sports facility must not operate within the hours of 10:00pm to 7:00am; 3. any tennis court surfaces are either dark green or grey in colour; 4. any tennis court fencing is chain mesh or similar, and grey or black in colour; 5. the GFA of any single building is less than 2,000m^2; and 6. landscape components are designed in accordance with Pegasus design guidelines SPZ(PR)-APP2.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R7 Recreation activities	
Activity status: PER Where: 1. the activity occurs within Activity Areas 3, 5 and 6.	**Activity status when compliance is not achieved: NC**

SPZ(PR)-R8 Helipad	
Activity status: PER Where: 2. the helipad is relocated within 10m of the location shown on SPZ(PR)-APP1; and 3. the helipad is not constructed over existing underground infrastructure.	**Activity status when compliance is not achieved: NC**
Advisory Note The location and design of any helipad must comply with Civil Aviation Rules, the Civil Aviation Act 1990 and other relevant legislation.	
<u>SPZ(PR)-R9 Public Amenities</u>	
<u>Activity status: PER</u> <u>Where:</u> 1. <u>the activity occurs within Activity Area 8.</u>	**<u>Activity status when compliance is not achieved: DIS</u>**
SPZ(PR)-R9 New stormwater or recreation water bodies	
Activity status: CON Where: 1. the activity occurs within Activity Areas 5 and 6; 2. resizing, resitting and the provision of additional proposed stormwater ponds are consistent with SPZ(PR)-APP1 and engineering requirements; and 3. the stormwater pond is lined with a liner of sufficient impermeability so that seepage from the pond does not increase the likelihood of liquefaction. **Matters of control and discretion are restricted to:** SPZ-PR-MCD1 - Stormwater or recreational water bodies **Notification** An application for a controlled activity under this rule is precluded from being publicly or limited notified.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R10 Visitor accommodation *This rule does not apply to any hotel provided for under SPZ(PR)-R11.*	
Activity status: RDIS Where: 1. the activity occur~~s~~ within Activity Area 2; 2. the maximum number of visitor accommodation units within Activity Areas 2 shall be 320; and	**Activity status when compliance is not achieved: NC**

3. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** SPZ-PR-MCD2 – Design considerations SPZ-PR-MCD3 - Transportation SPZ-PR-MCD4 - Amenity values SPZ-PR-MCD7 - Visitor accommodation SPZ-PR-MCD8 - Flooding hazard **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	
SPZ(PR)-R11 Hotel	
Activity status: RDIS Where: 1. the activity occurs within Activity Areas 1 and 4; and 2. the maximum number of hotel accommodation units within Activity Areas 1 and 4 shall be 180; and 3. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD3 - Transportation SPZ-PR-MCD4 - Amenity values SPZ-PR-MCD8 - Flooding hazard **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R12 Spa/wellness and hot pool complex	
Activity status: RDIS Where: 1. the activity occurs within Activity Area 1; and 2. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:**	**Activity status when compliance is not achieved: NC**

SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD3 - Transportation SPZ-PR-MCD4 - Amenity values SPZ-PR-MCD8 - Flooding hazard **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	
SPZ(PR)-R13 Commercial golf resort activity	
Activity status: RDIS Where: 1. the activity occurs within Activity Areas 1 to 4; 2. there is a maximum of 2,500m² GFA within Activity Areas 1, 2, 3 and 4 combined, as shown on SPZ(PR)-APP1; 3. commercial golf resort activity in Activity Areas 1 to 4 shall be a maximum of 200m² GFA per tenancy: and 4. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD3 - Transportation SPZ-PR-MCD4 - Amenity values SPZ-PR-MCD8 - Flooding hazard	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R14 Golf country club	
Activity status: RDIS Where: 1. the activity occurs within Activity Area 3; and 2. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** SPZ-PR-MCD5 - Golf facility considerations **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	**Activity status when compliance is not achieved: NC**

SPZ(PR)-R15 Golf education facility	
Activity status: RDIS Where: 1. the activity occurs within Activity Area 4; and 2. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** SPZ-PR-MCD5 - Golf facility considerations **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R1X Mākete tourism activity	
Activity Status: RDIS Where: 1. The activity occurs within Activity Area 8; and 2. The design of development is in accordance with the Pegasus design guidelines SPZ(PR)-APP~~X~~2. **Matters of control and discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD3 - Transportation SPZ-PR-MCD4 - Amenity values SPZ-PR-MCD8 - Flooding hazard	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R1X – Multi Unit Residential Development	

Activity Status: RDIS
 	
Where:
 	
1. The activity occurs within Activity Area 7B; and
 	
2. The activity results in the construction of four or more residential units per site or where the activity cannot be undertaken as a permitted activity under Rule **SPZ(PR)-RX**; and
 	
3. The activity complies with the following built form standards:
 	
a. SPZ(PR)-BFS3 Building Height;
 	
b. SPZ(PR)-BFS4 Building Coverage;
 	
c. SPZ(PR)-BFS6 Building and Structure Setbacks;
	Activity status when compliance is not achieved: DIS

d. SPZ(PR)-BFSX Outdoor Living Space;
e. SPZ(PR)-BFSX Landscape Permeable Surfaces;
f. SPZ(PR)-BFSX Street Interface; and
g. SPZ(PR)-BFSX Height in Relation to Boundary
h. SPZ(PR)-BFSX Number of adjoining residential units in Activity Area 7B
4. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2.
Matters of control and discretion are restricted to:
SPZ-PR-MCD1 –Design Controls
SPZ-PR-MCD3 – Transportation
SPZ-PR-MCD4 – Amenity values
SPZ-PR-MCD8 – Flooding hazard	

SPZ(PR)-R16 Primary production	
This rule does not apply to plantation forestry and woodlots provided for under SPZ(PR)-R20; or mining and quarrying activities provided for under SPZ(PR)-R23.	
Activity status: DIS	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R17 Any other activity not provided for in this zone as a permitted, controlled, restricted discretionary, discretionary, non-complying, or prohibited activity, except where expressly specified by a district wide provision	
Activity status: DIS	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R18 Large format retail	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R19 Supermarket	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R20 Plantation forestry and woodlots	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R21 Intensive indoor primary production	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R22 Commercial services *This rule does not apply to any hairdressing, beauty salons, barbers, and massage therapists except where provided for under SPZ(PR)-R11 to SPZ(PR)-R14.*	

Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R23 Mining and quarrying activities	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R24 Office	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R25 Funeral related services and facility	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R26 Waste management facility	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R27 Trade supplier	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R28 Service station	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R29 Motorised sports facility	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R30 Industrial activity	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R31 Boarding kennels	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R32 Cattery	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R33 Composting facility	
Activity status: NC	**Activity status when compliance is not achieved: N/A**

Built Form Standards

SPZ(PR)-BFS1 Visitor accommodation unit standards	
1. The minimum NFA (excluding garages, balconies, and any communal lobbies stairwells and plant rooms) per visitor accommodation unit shall be: a. Studio 25m^2; b. One bedroom 35m^2; c. Two bedroom 50m^2; and d. Three or more bedrooms 80m^2; 2. Each visitor accommodation unit shall be provided with a private outdoor living space with a minimum area of 6m^2 and a minimum dimension of 1.5m; 3. Where a garage is not provided with the unit, each visitor accommodation unit shall have an internal storage space that is a minimum of 4m^3 and a minimum dimension of 1m; and 4. External lighting shall be limited to down lighting only, at a maximum of 1.5m above the finished floor level of the building, with the light source shielded from horizontal view.	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:** SPZ-PR-MCD7 - Visitor accommodation units **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR)-BFS2 Visitor accommodation waste management	
1. All visitor accommodation shall provide: a. a waste management area for the storage of rubbish and recycling of 5m^2 with a minimum dimension of 1.5m; and b. waste management areas shall be screened or located behind buildings when viewed from any road or public open space.	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:** SPZ-PR-MCD7 - Visitor accommodation units **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR)-BFS3 Building height	

1. The maximum height of buildings above ground level shall be: a. Activity Area 1 - 16m at 3 storeys; b. Activity Area 2 - 12m at 3 storeys; c. Activity Area 3 - 9m at 2 storeys; d. Activity Area 4 - 14m at 3 storeys; e. Activity Area 5 - 8m at 2 storeys; f. Activity Area 6 - 6m at 1 story; ~~and~~ g. Activity Area 7A - 10m at 2 storeys (with the exception of Lot 206 DP 412982[5], Lot 212 DP 403716 and Lot 230 DP417391, which shall comprise a single storey residential unit no higher than 7m);~~.~~ h. Activity Area 7B – ~~12m~~ 10m at ~~3~~ 2 storeys; and i. Activity Area 8 – 9m at 2 storeys. 2. The minimum height of buildings shall be: a. Activity Area 2 - 6m at 1 storey.	**Activity status when compliance is not achieved: NC**
Calculation method for SPZ(PR)-BFS5 1. For the purpose of calculating the height, the following shall be excluded: a. items listed in the definition of height calculation; and b. in Activity Areas 1 and 4 only, a pavilion building to a maximum of 30% of the building footprint to enable the activation of a living roof, provided that the maximum height as measured from the finished floor level of the living roof is not exceeded by more than 4m.	
SPZ(PR)-BFS4 Building coverage	
1. The building coverage shall not exceed the maximum percentage of net site area: a. Activity Area 1 - 35%; b. Activity Area 2 - 35%; c. Activity Area 3 - 20%; d. Activity Area 4 - 35%; e. Activity Area 5 - 3%; f. Activity Area 6 - 3%; g. Activity Area 7A - 20%; h. Activity Area 7B – 50%; and i. Activity Area 8 – 20%	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD4 - Amenity values
SPZ(PR)-BFS5 Living roof	

[5] Consequential amendment if 65A Mapleham Drive is included in Activity Area 7A of the ODP.

In Activity Areas 1 and 4, buildings with a footprint over 2,000m^2 shall include a living roof.	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD4 - Amenity values
SPZ(PR)-BFS6 Building and structure setbacks	
1. Setbacks to be provided as per SPZ(PR)-APP1 as follows: a. Pegasus Boulevard (Activity Areas 1 and 4) - 20m; b. Pegasus Boulevard (Activity Area 3) - 5m; 2. Setbacks to be provided in Activity Area 7A (excluding Lot 206 DP 412982[6], Lot 212 DP 403716 and Lot 230 DP 417391) as follows: a. Any building or structure shall be no less than 10m from any internal boundary or road boundary; and 3. Setbacks to be provided in Activity Area 7A on Lot 230 DP 417391 as follows: a. Any building or structure shall be no less than 3m from the road boundary with Taerutu Lane or Mapleham Drive; and b. Any building or structure shall be no less than 10m from any internal boundary or other road boundary;	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD4 - Amenity values SPZ-PR-MCD6 - Boundary setback **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.

[6] Consequential amendment if 65A Mapleham Drive is included in Activity Area 7A of the ODP.

4. Setbacks to be provided on Lot 212 DP 403716 as follows:
    a. Any building or structure shall be no less than 3m from the road boundary with Atkinsons Lane; and
    b. Any building or structure shall be no less than 10m from any internal boundary or other road boundary.
5. Setbacks to be provided on Lot 206 DP 412982 as follows:
    a. Any building or structure shall be no less than 3m from the road boundary with Mapleham Drive; and
    b. Any building or structure shall be no less than 10m from any internal road boundary or other road boundary.[7]
6. Setbacks to be provided in Activity Area 7B as follows:
    a. Any building or structures adjoining a State Highway – 25m;
    b. Any building or structure shall be set back a minimum of 1.5m from any road boundary except for:
        i. any fence;
        ii. poles and masts up to 6.5m in height above ground level;
        iii. structures other than a fence, less than $10m^2$ and less than 3m in height above ground level;
        iv. any caravan;
        v. the replacement, maintenance and minor upgrading of any infrastructure; and
        vi. any structure or residential unit adjoining an accessway that does not have doors or windows that open into that accessway.
    c. Any building or structure shall be set back a minimum of 1m from any internal boundary, except that buildings on adjoining sites which share a common wall, the internal setback shall not apply along that part of the internal boundary covered by such a wall.
7. Setbacks to be provided in Activity Area 8 as follows:
    a. Any building or structures adjoining a State Highway - 30m.

Exemption

The setback provisions do not apply to the temporary storage of non-motorised caravans.

SPZ(PR)-BFS7 Landscaping

[7] Consequential amendment if 65A Mapleham Drive is included in Activity Area 7A of the ODP.

1. The minimum amount of landscaped area in each activity area shall be: a. Activity Area 1 - 40%; b. Activity Area 2 - 30%; c. Activity Area 3 - 30%; d. Activity Area 4 - 40%;	**Activity status when compliance is not achieved: NC**

e. Activity Area 5 - 90%; ~~and~~ f. Activity Area 6 - 90%; and.~~-~~ g. Activity Area 8 – 50%.	
SPZ(PR)-BFS8 Outdoor storage	
1. All goods, materials or equipment shall be stored inside a building, except for vehicles associated with the activity parked on the site overnight.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-BFS9 Commercial waste management	
1. All commercial activities shall provide: a. a waste management area for the storage of rubbish and recycling of no less than $5m^2$ with a minimum dimension of 1.5m; or b. a common waste management area for the storage of rubbish and recycling within Activity Area 8 of no less than $5m^2$ per $100m^2$ of commercial activity GFA within the activity area; and c. waste management areas shall be screened or located behind buildings when viewed from any road or public space.	**Activity status when compliance is not achieved: DIS**
SPZ(PR)-BFS10 Building and structures colours and reflectivity	
1. Any buildings and structures within the Activity Areas 1 to 6, and 7B and 8 shall meet the following requirements: a. exterior wall cladding including gable ends, dormers and trim of all structures shall be finished in their natural colours or coloured earthly mid tones and achieve reflectivity between 5% and 22%; and b. roofs of all structures including trim shall be finished in their natural colours or coloured dark tones and achieve reflectivity between 5% and 12%.	**Activity status when compliance is not achieved: DIS**
SPZ(PR)-BFS11 Residential buildings on Lot 206 DP 412982[8], Lot 212 DP 403716 and Lot 230 DP 417391	

[8] Consequential amendment if 65A Mapleham Drive is included in Activity Area 7A of the ODP.

1. All buildings must be constructed on-site from new or high quality recycled materials; 2. Exterior cladding for all buildings (except for the cladding of soffits or gable ends) shall be of the following materials: a. brick; or b. natural stone; or c. river rock; or d. texture plaster over brick, or polystyrene or other suitable sub base for plaster; or e. stained or painted timber weather-board, wooden shingles, timber board batten; or f. surface coated concrete block; or g. solid plaster or glazing. 3. All roofing material on any building shall be either: a. tiles (including clay, ceramic, concrete, decramastic, pre-coated or pressed steel); or b. steel (comprising pre-painted, long run pressed or rolled steel); or c. shingles; or d. slate; or e. membrane roofing. 4. No reflective or visually obtrusive roof, wall or joinery materials, colours or mirror glass may be used for any building; 5. No exterior cladding, no roofing material, no guttering or down pipe material comprising unpainted and/or exposed zinc coated products may be used on any building; 6. No buildings shall be erected using concrete or treated wooden piles without providing a solid and durable skirting board or other enclosure around the exterior of the building(s) from ground height to the underside of the wall cladding; 7. No accessory building shall be erected except in conjunction with or following construction of the residential unit and all such buildings shall be constructed with permanent materials comprising timber, stone or other permanent materials in character with the residential unit; 8. Air conditioning units must not be set into or protrude from the building(s). Any external air conditioning units must be properly screened; 9. No building shall be erected, altered, placed or permitted to remain other than buildings designed for residential activity and any accessory building; 10. Clotheslines and letterboxes must be unobtrusive and of good quality in terms of design and location. The positioning of any letterbox shall be adjacent to but not on the road reserve; and 11. Only post and rail fences may be erected on side boundaries. No fencing is permitted on road frontage or any internal boundary.	**Activity status when compliance is not achieved: DIS**

SPZ(PR)-BFS12 Site layout Pegasus Resort ODP	
1. Development shall be in accordance with SPZ(PR)-APP1. 2. For the purpose of this built form standard the following amendments do not constitute a breach of SPZ(PR)-APP1: a. development shall facilitate a road connection at fixed road access points shown on SPZ(PR)-APP1 to enable vehicular access to roads which connect with Pegasus Boulevard and Mapleham Drive, provided that a variance of up to 20m from the location of the connection shown on SPZ(PR)-APP1 shall be acceptable; b. the provisions for breaks in the landscape buffer identified along the Pegasus Boulevard to accommodate entry and egress into and out of the site or where landscaping is required to be reduced in order to achieve the safe and efficient operation of existing road networks; and c. resizing, resitting and the provision of additional proposed stormwater ponds.	**Activity status when compliance not achieved: DIS**
SPZ(PR) – BFS13 Number of residential units in Activity Area 7B ~~per site~~	
1. In Activity Area 7B there shall be no more than ~~3~~27 residential units. ~~per site~~	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD3 – Transportation SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR)-BFSX Number of adjoining residential units in Activity Area 7B	
1. In Activity Area 7B there shall be no more than 3 adjoining residential units in a single block.	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** SPZ-PR-MCD2 - Design considerations **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR) – BFS14 Outdoor living space	

1. In Activity Area 7B a residential unit at ground floor level must have an outdoor living space that is at least 20 square metres and that comprises a ground floor, balcony, patio, or roof terrace space that, - a. where located at ground level, has no dimension less than 3 metres; and b. where provided in the form of a balcony, patio, or roof terrace, is at least 8 square metres and has a minimum dimension of 1.8 metres; and c. is accessible from the residential unit; and d. may be grouped cumulatively by area in 1 communally accessible location; or located directly adjacent to the unit; and e. is free of buildings, parking spaces, and servicing and manoeuvring areas. 2. In Activity Area 7B a residential unit located above ground floor level must have an outdoor living space in the form of a balcony, patio, or roof terrace that- a. is at least 8 square metres and has a minimum dimension of 1.8 metres; and b. is accessible from the residential unit; and	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.

c. may be grouped cumulatively by area in 1 communally accessible location, in which case it may be located at ground level; or d. located directly adjacent to the unit.	
SPZ(PR) – BFS15 Landscape permeable surfaces	
1. Landscape permeable surfaces are to be provided in Activity Area 7B as follows: a. The minimum landscaped permeable surface of any site shall be 20% of the net site area. b. For the purpose of calculating the area of landscaped permeable surface the following areas can be included: c. any paths 1.1m wide or less; or d. open slat decks under 1m in height above ground level with a permeable surface underneath.	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR) – BFS16 Street interface	
1. In Activity Area 7B, where the site has direct road frontage, any residential unit or minor residential unit facing the road shall address the street as follows: a. Shall have a door that is directly visible and accessible from the street. b. Garage doors that face the street shall have a combined maximum width of 6.5m.	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR) – BFS17 Height in relation to boundary	
1. Buildings must not project beyond a 60° recession plane measured from a point 4 metres vertically above ground level along all boundaries, as shown Figure SPZ(PR)-X. Where the boundary forms part of a legal right of way, entrance strip, access site, or pedestrian access way, the height in relation to boundary applies from the farthest boundary of that legal right of way, entrance strip, access site, or pedestrian access way. This standard does not apply to: a. a boundary with a road; b. existing or proposed internal boundaries within a site; and c. site boundaries where there is an existing common wall between 2 buildings on adjacent sites or where a common wall is proposed. 2. Where the site is within the Urban Flood Assessment Overlay, the height of the Finished Floor Level specified in a Flood Assessment Certificate can be used as the origin of the recession plane instead of ground level, but only up to an additional 1m above original ground level.	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR)-BFS18 Outlook space (per unit)	

1. In Activity Area 7B an outlook space must be provided for each residential unit as specified in this clause. 2. An outlook space must be provided from habitable room windows as shown in Figure SPZ(PR)-X ~~MRZ-5.~~ a. The minimum dimensions for a required outlook space are as follows: b. a principal living room must have an outlook space with a minimum dimension of 4 metres in depth and 4 metres in width; and c. all other habitable rooms must have an outlook space with a minimum dimension of 1 metre in depth and 1 metre in width. d. The width of the outlook space is measured from the centre point of the largest window on the building face to which it applies. e. Outlook spaces may be over driveways and footpaths within the site or over a public street or other public open space. f. Outlook spaces may overlap where they are on the same wall plane in the case of a multi-storey building. g. Outlook spaces may be under or over a balcony. h. Outlook spaces required from different rooms within the same building may overlap. i. Outlook spaces must be clear and unobstructed by buildings; and j. not extend over an outlook space or outdoor living space required by another dwelling.	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR)-BFS19 Windows to Street	
1. In Activity Area 7B any residential unit facing the street must have a minimum of 20% of the street-facing facade in glazing. This can be in the form of windows or doors.	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR)-BFS20 Landscaped Area	
1. In Activity Area 7B a residential unit at ground floor level must have a landscaped area of a minimum of 20% of a developed site with grass or plants and can include the canopy of trees regardless of the ground treatment below them. 2. The landscaped area may be located on any part of the development site and does not need to be associated with each residential unit.	**Activity status when compliance not achieved: RDIS** **Matters of discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD4 - Amenity values **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.

Matters of Control or Discretion

SPZ-PR-MCD1	**Stormwater or recreational water bodies** 1. Landscaping, planting and screening; 2. Accessibility for maintenance purposes; 3. Design capacity; and 4. Integration into the stormwater network.
SPZ-PR-MCD2	**Design considerations** 1. The layout of non-fixed elements of the development in accordance with SPZ(PR)-APP1. 2. Design of development in accordance with the Pegasus design guidelines, including: a. the bulk, scale, location and external appearance of buildings; b. the creation of active frontages adjacent to roads and public spaces; c. setbacks from roads; d. landscaping; e. streetscaping design; f. application of CPTED principles; g. focus on sustainable design to reduce carbon footprint; h. provision for internal walkways, paths, and cycleways; ~~and~~ i. appropriate legal mechanism to ensure implementation of design responses as relevant; j. the provision of open space. 3. Lighting design that meets the character and amenity values for the activity area. 4. Adequate provision of storage and loading/servicing areas and access to all service areas that require ongoing maintenance. 5. Enhancement of ecological and natural values.
SPZ-PR-MCD3	**Transportation** 1. Safe, resilient, efficient functioning and sustainable transport network for all transport modes, including: a. In relation to Activity Area 8, the preparation of an Integrated Transportation Assessment that includes a modelling assessment of the impacts of the development enabled by the application on the future performance of: i. the site accesses along Pegasus Boulevard adjacent to the SPZ(PR); and ii. the SH1 / Pegasus Boulevard roundabout or any future upgraded intersection replacing the roundabout. 2. Adverse effects on the character and amenity values of the surrounding area in terms of noise, vibration, dust, nuisance, glare or fumes. 3. Provision of safe vehicle access and adequate on-site car parking and circulation and on-site manoeuvring. 4. Road and intersection design in accordance with SPZ(PR)-APP1. 5. Compliance with the relevant standards contained within the Transport Chapter. 6. In relation to Activity Area 7B and Activity Area 8, the provision of adequate internal pedestrian connections.
SPZ-PR-MCD4	**Amenity values** 1. Effects of the development on: a. character and quality of the environment, including natural character, water bodies, ecological habitat and indigenous biodiversity, and sites of significance to Māori; b. existing landscape character values and amenity values of the zone in which it occurs, and the zone of the receiving environment; and c. the surrounding environment such as visual effects, loss of daylight, noise, dust, odour, signs, light spill and glare, including cumulative effects. 2. Effects of hours of operation on the amenity values of any surrounding residential properties, including noise, glare, nuisance, disturbance, loss of security and privacy. 3. Incorporation of effective mitigation such as landscaping or screening.

SPZ-PR-MCD5	**Golf facility considerations** 1. Maintaining the spatial extent of the 18 hole champion golf course. 2. Interface with public roads and open spaces. 3. Traffic generation, access and parking. 4. Noise duration, timing, noise level and characteristics, and potential adverse effects in the receiving environment.
SPZ-PR-MCD6	**Boundary setback** 1. The extent to which any reduced road boundary setback will detract from the pleasantness, coherence, openness and attractiveness of the site as viewed from the street and adjoining sites, including consideration of: a. compatibility with the appearance, layout and scale of other buildings and sites in the surrounding area; and b. the classification and formation of the road, and the volume of traffic using it within the vicinity of the site. 2. The extent to which the scale and height of the building is compatible with the layout, scale and appearance of other buildings on the site or on adjoining sites. 3. The extent to which the reduced setback will result in a more efficient, practical and better use of the balance of the site. 4. The extent to which any reduced setback from a transport corridor will enable buildings, balconies or decks to be constructed or maintained without requiring access above, on, or over the transport corridor.
SPZ-PR-MCD7	**Visitor accommodation units** 1. In relation to minimum unit size, where: a. the floor space available and the internal layout represents a viable visitor accommodation unit that would support the amenity values of current and future guests and the surrounding activity area; b. other onsite factors compensate for a reduction in unit sizes e.g. communal facilities; and c. the balance of unit mix and unit sizes within the overall development is such that a minor reduction in the area of a small percentage of the overall units may be warranted. 2. In relation to storage space, where: a. the extent to which the reduction in storage space will adversely affect the functional use of the visitor accommodation unit and the amenity values of neighbouring sites, including public spaces; and b. the extent to which adequate space is provided on the site for the storage of bicycles, waste and recycling facilities and clothes drying facilities. 3. In relation to outdoor living space, where: a. the extent to which the reduction in outdoor living space will adversely affect the ability of the site to provide for amenity values and meet outdoor living needs of likely future guests.
SPZ-PR-MCD8	**Flooding hazard** 1. The extent to which natural hazards have been addressed, including any actual or potential impacts on the use of the site for its intended purpose, including: a. the location and type of infrastructure; and b. any restriction on floor levels as a result of flood hazard risk. 2. The extent to which overland flow paths are maintained. 3. Any effects from fill on stormwater management on the site and adjoining properties and the appropriateness of the fill material. 4. Increased ponding or loss of overland flow paths.

Definitions

Amend the definition of 'Mākete tourism activity' as follows:

"Means activities that support the tourism activities in the zone, including:

a. *wellness activities;*
b. ~~*food and beverage retail;*~~ *cafes;*
c. *restaurants (excluding takeaway bars);*
d. *wine bars;*
e. *farmers* markets;
f. *artisan workshops and associated retail of products;*
g. *gift/souvenir shops;*
h. ~~*manufacturing of food or beverage goods;*~~
i. *cultural facilities;*
j. *entertainment activities;*
k. ~~*horticulture*~~ *agri-tourism and wine tourism; and*
l. *associated educational facilities."*

Amend the definition of 'Commercial golf resort activity':

"...

(e) gift/souvenir shop and any ancillary artisan workshops" [13]

[13] S&E Corp [416.15].

SUB-S1 Allotment size and dimensions			
1. All allotments created shall comply with Table SUB-1.	**Activity status when compliance not achieved:** **In the Medium Density Residential Zone, any Industrial Zone and Special Purpose Zone (Kaiapoi Regeneration): DIS** **In any other zone: NC**		
Table SUB-1: Minimum allotment sizes and dimensions			
Special Purpose Zone	**Minimum allotment area**	**Internal square**	**Frontage (excluding rear lots)**
(Pegasus Resort) • Areas 1, 2, ~~and~~ 4, and 8	No minimum	n/a	n/a
• Area 7B	n/a for the purpose of construction and use of residential units	n/a	n/a
• All other areas	4ha	n/a	n/a

OFFICER'S REPORT FOR:	**Hearings Panel**
SUBJECT:	**Proposed Waimakariri District Plan: Hearing Stream 12A Rezoning requests – Whaitua motuhaka Special Purpose Zone – Pegasus Resort (SPZ(PR))**
PREPARED BY:	**Jessica Manhire**
REPORT DATED:	**1 May 2024**
DATE OF HEARING:	**4-7 June 2024**

WAIMAKARIRI DISTRICT COUNCIL

Executive Summary

1. This report considers submissions received by the District Council in relation to the relevant objectives, policies, rules, definitions, appendices and maps of the Proposed Plan as they apply to the rezoning requests to be included in the Special Purpose Zone-Pegasus Resort (SPZ(PR)). The report outlines recommendations in response to the issues that have emerged from these submissions.

2. There are two rezoning requests to include land into the SPZ(PR) as follows:

    - DEXIN Investment Ltd (DEXIN) seeks rezoning of its site at 1250 Main North Road and amendments to provisions to provide for a range of agricultural tourism activities and medium density residential activities.

    - Howard Stone seeks rezoning of land at 1188 Main North Road (20 Te Haunui Lane) to be included in Activity Area 7 - Residential.

3. I recommend that the above rezoning requests be **rejected**.

4. I have recommended some changes to the Proposed Plan provisions to address matters raised in submissions. These key amendments are summarised below:

    - Amend SPZ(PR)-O2 and SPZ(PR)-P1 to provide for cultural values. These changes result from the cultural impact assessment provided by DEXIN. While my recommendation is ultimately to reject the rezoning aspect of the submission, the evidence provided as part of the submission did identify that SPZ(PR)-O2 and SPZ(PR)-P1 should include reference to cultural values. On this basis I consider that this aspect of the submission (the s32AA evaluation of the appropriateness of the objective) should be **accepted in part**.

5. With respect to the rezoning of land sought by DEXIN and Howard Stone, I consider the notified plan zonings best meet the objectives of the plan.

6. Having considered all the submissions and reviewed all relevant statutory and non-statutory documents, I recommend that the rezoning requests for the above sites be rejected and the Proposed Plan be amended as set out in **Appendix A** of this report.

7. For the reasons set out in the Section 32AA evaluation and included throughout this report, I consider that the proposed objectives and provisions, with the recommended amendments, will be the most appropriate means to:

    - achieve the purpose of the RMA where it is necessary to revert to Part 2 and otherwise give effect to higher order planning documents, in respect to the proposed objectives, and

    - achieve the relevant objectives of the Proposed Plan, in respect to the proposed provisions.

Contents

Executive Summary i
Contents ii
Interpretation iv
1 Introduction 1
1.1 Purpose 1
1.2 Author 1
1.3 SPZ(PR) background 2
1.4 Key Issues in Contention 4
1.5 Procedural Matters 4
2 Statutory Considerations 5
2.1 Resource Management Act 1991 5
2.2 Section 32AA 5
2.3 Trade Competition 6
3 Consideration of Submissions and Further Submissions 7
3.1 Overview 7
3.2 1250 Main North Rd 16
3.3 1188 Main North Road/20 Te Haunui Lane 37
3.4 Minor Errors 52
4 Conclusions 53

Appendices

Appendix A. Recommended Amendments to the Pegasus Resort Chapter and associated provisions

Appendix B. Recommended Responses to Submissions and Further Submissions

Appendix C. Section 32AA Evaluation

Appendix D. Statement of evidence of Shane Binder (Transport), John Aramowics (Servicing, Hazards), Christopher Bacon (Servicing, Hazards) on behalf of Waimakariri District Council

Appendix E. Memorandum of Shane Binder on Transportation matters for 1250 Main North Road Rezoning Request

Appendix F. Cultural Advice Report: 20 Te Haunui Lane

Appendix G. Decision of Hearing Commissioners - RC055641 and RC055642

Appendix H. Report Author's Qualifications and Experience

List of Tables

Table 1: Abbreviations iv
Table 2: Abbreviations of Submitters' Names iv

List of Tables in Appendices

Table B 1: Recommended responses to submissions and further submissions

Table C 1: Recommended Amendments to Objectives

Interpretation

8. This Officer's report utilises a number of abbreviations for brevity as set out in Table 1 and Table 2 below:

Table 1: Abbreviations

Abbreviation	Means
District Council	Waimakariri District Council
GIZ	General Industrial Zone
GCSP	Greater Christchurch Spatial Plan 2024
KAC	Key Activity Centre
LCZ	Local Centre Zone
MRZ	Medium Density Residential Zone
NES-CF	Resource Management (National Environmental Standards for Commercial Forestry) Amendment Regulations 2023
NES-PF	National Environmental Standards for Plantation Forestry 2017
NOSZ	Natural Open Space Zone
NPS-HPL	National Policy Statement for Highly Productive Land
NPS-UD	National Policy Statement on Urban Development 2020
ODP	Outline Development Plan
Operative District Plan	Operative Waimakariri District Plan
Proposed Plan	Proposed Waimakariri District Plan
RLZ	Rural Lifestyle Zone
RMA	Resource Management Act 1991
CRPS	Operative Canterbury Regional Policy Statement
SASM	Sites and Areas of Significance to Māori
SPZ(PR)	Special Purpose Zone – Pegasus Resort
TCZ	Town Centre Zone
WWTP	Waste Water Treatment Plant

Table 2: Abbreviations of Submitters' Names

Abbreviation	Means
DEXIN	DEXIN Investment Limited
S&E Corp	Sports and Education Corporation

1 Introduction

1.1 Purpose

9. The purpose of this report is to provide the Hearings Panel with a summary and analysis of the submissions received on the rezoning requests by DEXIN [377] and Howard Stone [191] to have their properties included in the SPZ(PR) and to recommend possible amendments to the Proposed Plan in response to those submissions.

10. This report is prepared under section 42A of the Resource Management Act 1991 (RMA).

11. This report discusses general issues or topics arising, the submissions and further submissions received following notification of the Proposed Plan, makes recommendations as to whether or not these should be accepted or rejected, and concludes with a recommendation for amendments to the Proposed Plan provisions based on the preceding discussion in the report.

12. The recommendations are informed by the advice provided by the District Council's Senior Transportation Engineer Shane Binder; servicing, and hazards advice provided by Consultant Civil Engineer John Aramowicz and the District Council's Network Planning Team Leader Chris Bacon; and the evaluation undertaken by the author. In preparing this report the author has had regard to recommendations made in other related s42A reports including the 'Whaitua motuhaka Special Purpose Zone – Pegasus Resort' (SPZ(PR)). I was the s42A report author for the SPZ(PR) Chapter which was heard on 19 February 2024 as part of Hearing Stream 10.

13. My recommendations on submission points for the SPZ(PR) Chapter, which were not related to the zoning outcomes, were addressed in the s42A report for the SPZ(PR) Chapter. This report considers the rezoning requests submissions and the related provisions.

14. This report is provided to assist the Hearings Panel in their role as Commissioners. The Hearings Panel may choose to accept or reject the conclusions and recommendations of this report and may come to different conclusions and make different recommendations, based on the information and evidence provided to them by submitters.

1.2 Author

15. My name is Jessica Anneka Manhire. My qualifications and experience are set out in **Appendix H** of this report.

16. My role in preparing this report is that of an expert planner.

17. I was involved in the preparation of the Proposed Plan and Section 32 Evaluation Reports. However, I was not the author of the SPZ(PR) Chapter or the Section 32 Evaluation Report. Subsequently, I have reviewed the chapter and Section 32 Evaluation Report in preparing my evidence. I prepared the s42A report for the SPZ(PR) Chapter.

18. Although this is a District Council Hearing, I have read the Code of Conduct for Expert Witnesses contained in the 2023 Practice Note issued by the Environment Court. I have complied with that Code when preparing my written statement of evidence and I agree to comply with it when I give any oral evidence.

19. The scope of my evidence relates to the rezoning requests for the SPZ(PR), and related provisions. I confirm that the issues addressed in this statement of evidence are within my area of expertise as an expert policy planner.

20. Any data, information, facts, and assumptions I have considered in forming my opinions are set out in the part of the evidence in which I express my opinions. Where I have set out opinions in my evidence, I have given reasons for those opinions.

21. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

1.3 SPZ(PR) background

22. The SPZ(PR) provides for a visitor resort centred around the existing 18-hole International Golf Course, and for hotel and visitor accommodation, existing large residential lots, a spa and hot pool complex, golf education and country club facilities and a limited mix of commercial and ancillary activities that support tourism activities associated with the Pegasus Resort. These activities are to be undertaken within seven distinct activity areas.

23. The key differences between these activity areas are the types of development enabled (as guided by the Outline Development Plan (ODP) (SPZ(PR)-APP1)) and the extent to which activities such as commercial golf resort activity and visitor accommodation can occur. This recognises that some activity areas predominantly perform functions relating to the existing golf course, or existing residential areas, while others will enable other major tourism related activities, and to allow each of these areas to develop a distinct character guided by the Pegasus Resort Urban Design Guidelines (design guidelines) (SPZ(PR)-APP2). Activity Area references correspond to SPZ(PR)-APP1-ODP and are referred to in the Activity Area Rules Tables. The Activity areas are as follows:

    - Activity Area 1: Spa;
    - Activity Area 2: Spa Village;
    - Activity Area 3: Golf Square;
    - Activity Area 4: Golf Village;
    - Activity Area 5: Village Fringe;
    - Activity Area 6: Golf Course;
    - Activity Area 7: Residential.

SPZ(PR)-APP1 - ODP

Figure 1: SPZ(PR) – APP1 – ODP.

24. Howard Stone [191] seeks to extend *Activity Area 7 - Residential* to include the rezoning request area.

25. *Activity Area 7* as notified is proposed to contain eight enclaves of residential sites with an average lot size of approximately 2000m². These residential sites were created at the same time as the golf course development and have been designed to have aspects overlooking the golf course open space areas. The intention is for these lots to maintain their semi-rural appearance and outlook over the golf course with no further intensification anticipated. Activity Area 7 also includes two additional residential sites that were created as balance lots and are now being developed for residential activity.

26. DEXIN [377] seeks to rename *Activity Area 7* to *Activity Area 7A: Low Density Residential*, and incorporate two new activity Areas as follows:

    - Activity Area 7B: Residential (Medium Density); and
    - Activity Area 8: Agricultural Tourism.

1.4 Key Issues in Contention

27. There were two rezoning requests for land to be included in the SPZ(PR). These were:

    - DEXIN seeks rezoning of its site at 1250 Main North Road and amendments to provisions to provide for a range of agricultural tourism activities and medium density residential activities.

    - Howard Stone seeks rezoning of land at 1188 Main North Road to be included in Activity Area 7.

28. I address each of these rezoning requests in this report and requested amendments to provisions to provide for this rezoning.

1.5 Procedural Matters

29. At the time of writing this report there have not been any pre-hearing conferences, clause 8AA meetings or expert witness conferencing specifically in relation to the SPZ(PR) rezoning request submissions. There have, however, been MS Teams meetings and email correspondence with submitters regarding completeness and adequacy of technical evidence for the two submissions.

30. Expert conferencing was undertaken on the topic of urban growth and development which relates to matters discussed in this report. Two Joint Witness Statements were prepared and these are available on the District Council website.[1] This conferencing focused on matters relevant to the rezoning submissions including the definition of the 'urban environment', and how urban development and growth is provided in regard to the rezoning request submissions.

31. I note that, with respect to the DEXIN submission, the submission seeks amendments to provisions to provide for the activities on the site. The further submission seeks "*Medium Density Residential Zone standards that arise from the Variation 1 process…be reflected in the Activity Area 7B provisions"*[2]. If the panel are of the mind to accept the rezoning submission, the provisions will need to be revisited in consideration of the outcome of Variation 1, including any site specific qualifying matters that may apply. However, I note that DEXIN do not have a submission on Variation 1 but do have a further submission that seeks this outcome for the SPZ(PR) Activity Area 7B that they are seeking for the site.

[1] https://www.waimakariri.govt.nz/council/district-development/proposed-district-plan-hearings/hearing-streams/hearing-stream-12

[2] Further submission 101, page 17

2 Statutory Considerations

2.1 Resource Management Act 1991

32. The Proposed Plan has been prepared in accordance with the RMA and in particular, the requirements of:

    - section 74 Matters to be considered by territorial authority, and
    - section 75 Contents of district plans.

33. There are higher order planning documents and strategic plans that provide direction and guidance for the preparation and content of the Proposed Plan. These documents are discussed in detail within the Section 32 Evaluation Report: Pegasus Golf, dated 18 September 2021 (refer to Section 3.2). Since the completion of the Section 32 Evaluation Report there have been the following changes to national legislation of relevance to this s42A report:

    - The National Policy Statement on Urban Development 2020 (NPS-UD) replaced the National Policy Statement on Urban Development Capacity 2016 and was updated in May 2022. The NPS-UD 2022 introduces a requirement for planning decisions to contribute to well-functioning urban environment and a requirement for local authorities to be responsive to unanticipated plan change requests where these would contribute to desirable outcomes; and
    - The National Policy Statement for Highly Productive Land (NPS-HPL) came into force on 17 October 2022. The NPS-HPL protects highly productive land for use in land-based primary production.

2.2 Section 32AA

34. I have undertaken an evaluation of the recommended amendments to provisions since the initial section 32 evaluation was undertaken in accordance with s32AA. Section 32AA states:

> ***32AA Requirements for undertaking and publishing further evaluations***
>
> *(1) A further evaluation required under this Act—*
>
> *(a) is required only for any changes that have been made to, or are proposed for, the proposal since the evaluation report for the proposal was completed (the changes); and*
>
> *(b) must be undertaken in accordance with section 32(1) to (4); and*
>
> *(c) must, despite paragraph (b) and section 32(1)(c), be undertaken at a level of detail that corresponds to the scale and significance of the changes; and*
>
> *(d) must—*
>
> *(i) be published in an evaluation report that is made available for public inspection at the same time as the approved proposal (in the case of a national policy statement or a New Zealand coastal policy statement or a national planning standard), or the decision on the proposal, is notified; or*

(ii) be referred to in the decision-making record in sufficient detail to demonstrate that the further evaluation was undertaken in accordance with this section.

(2) To avoid doubt, an evaluation report does not have to be prepared if a further evaluation is undertaken in accordance with subsection (1)(d)(ii).

The required section 32AA evaluation for changes proposed as a result of consideration of the rezoning request submissions with respect to the Pegasus Resort Chapter is appended to this report as **Appendix C**, as required by s32AA(1)(d)(ii).

2.3 Trade Competition

35. There are no known trade competition issues raised within the submissions.

3 Consideration of Submissions and Further Submissions

3.1 Overview

Pegasus Resort Rezoning Requests

36. My recommendations on submission points for the SPZ(PR) Chapter that were not related to the zoning outcomes were addressed in the s42A report for the SPZ(PR) Chapter in Hearing Stream 10 on the 19th February 2024. This report considers the rezoning requests submissions and the related provisions.

37. The SPZ(PR) Chapter s42A report is of relevance as it assesses and provides recommendations for submission points on the SPZ(PR) provisions where these are not to provide for the rezoning requests. The SPZ(PR) Chapter s42A report considered the intended purpose of the SPZ(PR) and recommended provisions, which are used as a basis for assessing the rezoning requests in this Hearing Stream 12A report. Specifically that report recommended amending the objectives and policies as follows:

Table 3: SPZ(PR) Chapter s42A report recommended amendments to objectives and policies

Objective or Policy	Recommended amendments
SPZ(PR)-O1	**Tourist destination** The establishment of regionally significant tourist destination based around an 18-hole international championship golf course, with existing large residential sites, incorporating hotel and visitor accommodation, spa/wellness and hot pool complex, golf education facility, golf country club [3]and limited small-scale commercial activity and ancillary activity.
SPZ(PR)-O2	**Design components** The development of ~~spa/wellness and hot pool complex~~ a tourism resort[4] centred on a spa village within a framework of open space and recreation facilities, that reflect the local open space, recreational, landscape and visual amenity values and achieve urban design excellence consistent with the Pegasus design guidelines.
SPZ(PR)-P1	**Outline development plan** Use and development of land shall: 1. be in accordance with the development requirements and fixed and flexible elements in SPZ(PR)-APP1, or otherwise achieve similar or better outcomes, except in relation to any interim use and development addressed by (3) below; 2. ensure that development: a. results in a vibrant, mixed-use area that achieves a complementary mix of hotel and visitor accommodation, spa/wellness and hot pool complex, golf education facility, golf

[3] S&E Corp [416.2]
[4] S&E Corp [416.3]

	country club,[5] small-scale commercial activities and ancillary activities; …
SPZ(PR)-P3	**Landscape and character** Provide for the landscape character values of the golf course, ~~country club facilities~~[6] and the background mountain range, particularly as viewed from public places, through master-planning, landscape design and massing of buildings.

38. There are two rezoning requests to include land into SPZ(PR). DEXIN [377] seeks rezoning of its site at 1250 Main North Road and amendments to provisions to provide for a range of agricultural tourism activities and medium density residential activities. Howard Stone [191] seeks rezoning of land at 1188 Main North Road to be included in Activity Area 7.

39. I note that there is a rezoning request for 70 and 74 Mapleham Drive [91.1], which borders the SPZ(PR), and is seeking residential zoning. These sites are located within the Mapleham Development Area which is zoned Rural Lifestyle Zone (RLZ). This submission has been allocated to the residential rezoning requests Hearing Stream 12E (22 July-2 August), as they are seeking a residential zoning and do not seek to be part of the SPZ(PR). It will not be assessed in this SPZ(PR) Hearing Stream 12A report.

40. Within the SPZ(PR) Chapter s42A report, I assessed the objective and policy framework of the Pegasus Resort Chapter in line with the hearing framework established by the Hearings Panel. I note however that there are submission points and information provided to support the rezoning requests that can only be considered at the time of assessment of rezoning outcomes. This report considers the submissions that are dependent on rezoning outcomes.

41. The assessment in this report has been prepared with reference to the recommendations that form part of the officer's right of reply at the completion of the SPZ(PR) Chapter hearing. I acknowledge that if the Panel reach a different view with respect to the objectives and policies of the SPZ(PR) Chapter that my recommendations may change.

42. Table 3 below provides a summary of provisions addressed in the SPZ(PR) report. Associated submissions to the rezoning requests that seek amendment to provisions are considered as part of this rezoning requests report. This report does not consider other requested amendments (not associated with the rezoning requests) to the provisions set out in the left hand column of the following table. Three of these provisions that were addressed in the SPZ(PR) report are also subject to separate requested amendments in this Hearing Stream 12 report as follows:

[5] S&E Corp [416.4]
[6] S&E Corp [416.5]

Table 4: SPZ(PR) provisions with submissions

Provisions in the SPZ(PR) report	Also subject to requested amendment because of a rezoning request in this report
SPZ(PR)-O1	Yes [377.5]
SPZ(PR)-P1	Yes [377.6]
SPZ(PR)-P2	No
SPZ(PR)-P3	No
SPZ(PR)-R10	No
SPZ(PR)-R11	No
SPZ(PR)-BFS12	No
SPZ(PR)-APP1	Yes [191.2] and [377.3]

43. DEXIN also seeks amendments to the following provisions associated with the rezoning request which will be considered as part of this rezoning request report:

- SPZ(PR)-O2 (further submission only)
- SPZ(PR)-P4 [377.7]
- SPZ(PR)-P5 [377.8]
- SPZ(PR)-P9 [377.9] (original submission only)
- SPZ(PR)-R2 [377.11]
- SPZ(PR)-R3 [377.11]
- SPZ(PR)-BFS3 [377.12]
- SPZ(PR)-BFS4 [377.12]
- SPZ(PR)-BFS6 [377.12]
- SPZ(PR)-BFS7 [377.12]
- SPZ(PR)-BFS9 [377.12]
- SPZ(PR)-BFS10 [377.12]
- SPZ(PR)-APP2 [377.15]
- DEXIN also seeks amendment to the introduction [377.4], a new definition [377.14], new activity rules [377.11], new built form standards [377.12] and an amendment to SUB-S1 [377.18].

3.1.1 Report Structure

44. I have undertaken the following evaluation of each of the rezoning requests individually by an issues-based approach.

45. The following evaluation should be read in conjunction with the summaries of submissions and the submissions themselves.

46. I have provided an updated marked-up version of the SPZ(PR) Chapter with recommended amendments in response to the submissions as **Appendix A**.

47. This report only addresses definitions that are specific to this topic. Definitions that are more relevant to other topics are addressed in the most relevant s42A report.

3.1.2 Format for Consideration of Submissions

48. For each identified topic, I have considered the submissions that are seeking changes to the Proposed Plan in the following format:

- Matters raised by submitters;
- Assessment;
- Summary of recommendations.

49. I have undertaken the s32AA evaluation in a consolidated manner following the assessment and recommendations on submissions, which is attached as **Appendix C**.

3.1.3 Planning and policy context

NPS-*UD and Greater Christchurch Spatial Plan*

50. Pegasus Town is identified as being within the urban environment of the Greater Christchurch area in both CRPS Map A and Map 2 of the Greater Christchurch Spatial Plan ('GCSP'), as shown in **Figures 2 and 3** respectively below.

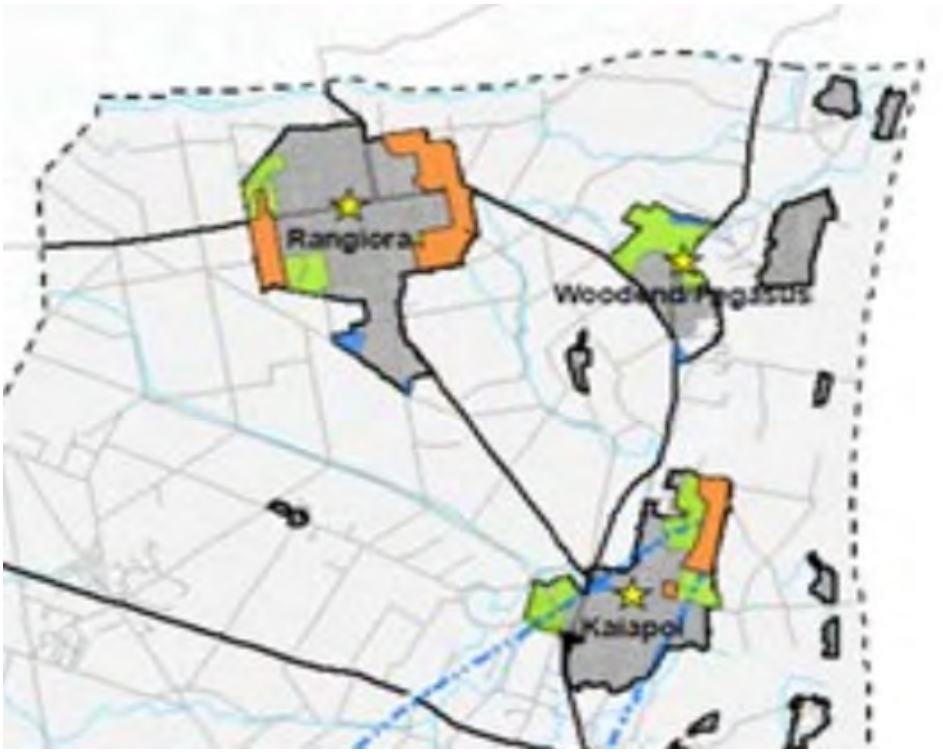


Figure 2: CRPS Map A (Waimakariri District).

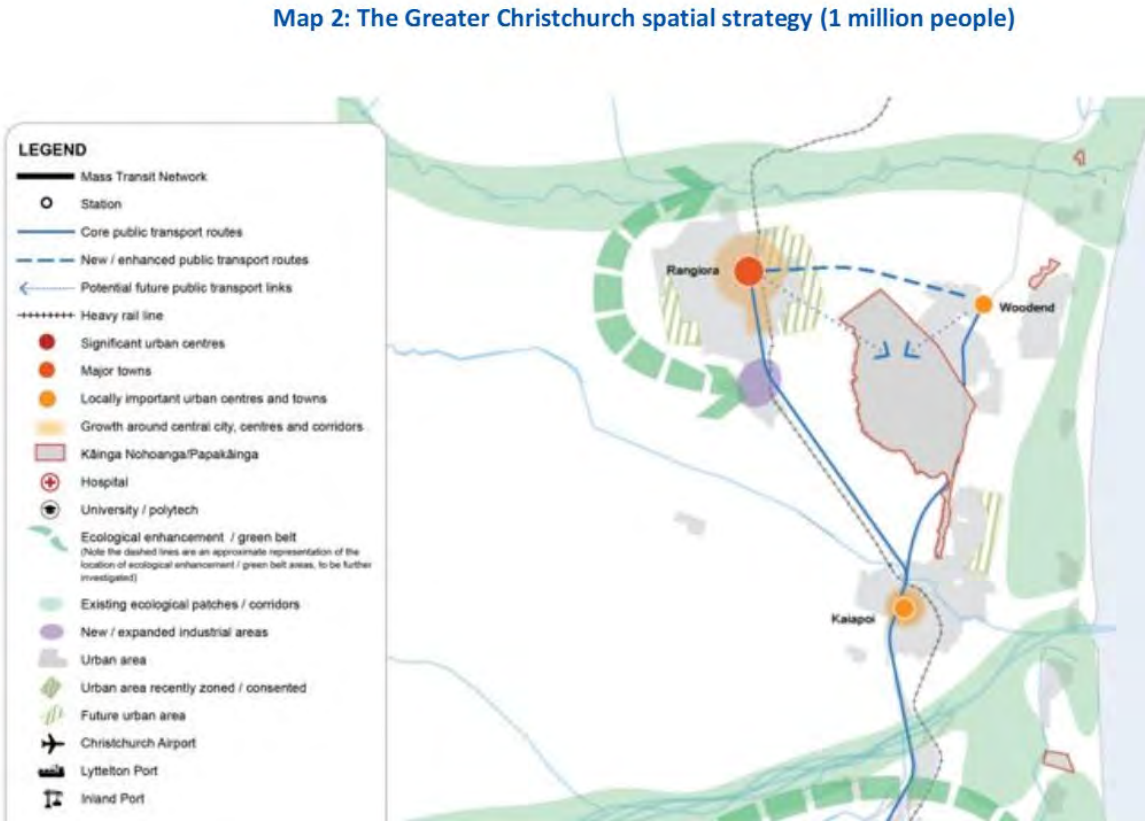


Figure 3: The Greater Christchurch spatial strategy.

51. Pegasus Town itself is shown on CRPS Map A as being (refer to **Figure 2**):

    - "Existing Urban Area"; and
    - Surrounded by 'Projected Infrastructure Boundary"

52. On Map 2 of the GCSP, Pegasus Town is shown as an "Urban Area".

53. The CRPS defines 'urban' as:

    "A concentration of residential, commercial and/or industrial activities, having the nature of town or village which is predominantly non-agricultural or non-rural in nature."

54. In my opinion, while not identified as being urban for the purposes of the CRPS and GCSP, the notified Pegasus Resort exhibits urban characteristics, particularly as it is adjoining and effectively viewed as the gateway to and part of the Pegasus Town. This view has been further supported by the urban development to the west at Ravenswood/Woodend. If the Pegasus Resort were located as a standalone development within a rural environment, in my opinion it would not meet the CRPS definition of 'urban'.

55. However, on CRPS Map A, the area subject to the Pegasus Golf Resort zoning and related provisions, and the rezoning request areas are outside of the areas identified as "Existing Urban Areas", Greenfield Priority Areas or Future Development Areas (FDAs). Development outside of

the areas identified in Map A is to be avoided under the CRPS[7] (Objective 6.2.1(3)[8], and Policy 6.3.7(1)[9]). Urban activities are to only occur within existing urban areas or identified greenfield priority areas as shown on Map A, unless they are otherwise expressly provided for in the CRPS (Policy 6.3.1(4))[10].

56. The GCSP, which is to be had regard to, has not defined the Pegasus Resort area as an urban area. Ravenswood/Pegasus/Woodend is identified as a "Locally important urban centre and town".

NPS-UD Policy 8: Responsiveness to plan changes

57. Policy 8 of the NPS-UD directs local authority decisions affecting urban environments to be responsive to plan changes that would add significantly to development capacity and contribute to well-functioning urban environments, even if the development is unanticipated by RMA planning documents; or out of sequence with planned land release [underlining emphasis added].

58. As the area subject to the rezoning requests is within the Greater Christchurch urban environment, Policy 8 is applicable and I consider its relevance in relation to the two rezoning requests later in this report.

NPS-UD Policy 1: Well-functioning urban environments

59. As noted previously, to give effect to the NPS-UD, the development must *"contribute to well-functioning urban environments"* as defined by NPS-UD Policy 1.

60. A well-functioning urban environment as a minimum:

> *(a) have or enable a variety of homes that:*
>
> *(i) meet the needs, in terms of type, price, and location, of different households; and*
>
> *(ii) enable Māori to express their cultural traditions and norms; and*
>
> *(b) have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and*
>
> *(c) have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and*
>
> *(d) support, and limit as much as possible adverse impacts on, the competitive operation of land and development markets; and*
>
> *(e) support reductions in greenhouse gas emissions; and*
>
> *(f) are resilient to the likely current and future effects of climate change.*

[7] Also refer to revised Statement of Evidence of Joanne Mitten on behalf of the Canterbury Regional Council, paragraph 100, 107

[8] "avoids urban development outside of existing urban areas or greenfield priority areas for development, unless expressly provided for in the CRPS"

[9] "…residential greenfield development shall occur in accordance with Map A."

[10] "ensure new urban activities only occur within existing urban areas or identified greenfield priority areas as shown on Map A, unless they are otherwise expressly provided for in the CRPS;"

61. Policy 1 is a minimum of what constitutes a well-functioning urban environment, so I have considered the above matters in addition to other factors including relevant CRPS objectives and policies in my assessments for each of the rezoning requests later in my report [emphasis added].

62. In my opinion, CRPS Objective 5.2.1(1) (Entire Region) that requires development to be located and designed so that it functions in a way that *"achieves consolidated, well designed and sustainable growth in and around existing urban areas as the primary focus for achieving the region's growth"* is a relevant consideration to achieving a well-functioning urban environment in the Greater Christchurch context.

3.1.4 Residential capacity

63. At least sufficient development capacity is to be provided to meet expected demand for housing and business land over the short term, medium term, and long term (NPS-UD Policy 2).

64. In July 2021, Change 1 to Chapter 6 of the CRPS was made operative, which amended Map A to identify FDAs to provide additional housing development capacity in Rolleston, Rangiora and Kaiapoi in order to support the outcomes of Our Space 2018-2048.

65. In May 2022, the NPS-UD added an implementation clause 3.8(3) requiring criteria for assessing significant development to be included in regional policy statements. The CRPS has not been updated to include relevant criteria. In the absence of CRPS criteria, I have considered the provisions of the NPS-UD and CRPS.

66. In addition, I note that the Waimakariri Residential Capacity and Demand Model September 2023 (WCGM23] allocates residential units spatially to urban areas in the District based on the observed patterns in building consents.[11] The report notes that the total plan enabled capacity in Woodend/Pegasus is now estimated to be around 15,660 new dwellings, or more than five times the existing number of dwellings in this area.[12] It concludes that there may not be sufficient residential supply in Woodend/Pegasus in the medium term, with a small shortfall.[13]

Woodend-Pegasus Dwelling Situation	2023-2033 Short-Medium	2023-2053 Long
Demand +Margin	2,480	5,840
Feasible Supply	2,200	2,790
Sufficiency	**-280**	**-3,050**

Figure 4: Woodend/Pegasus Residential Dwelling Demand (+Margin) and Feasible Supply. Source: WCGM23.

67. Regarding Woodend-Pegasus the WCGM23 concluded:

> *"…there may be insufficient residential supply, in Woodend-Pegasus. The Council should monitor that situations to ensure that a shortage does not arise. We consider that given the scale of development potential around the District and Urban*

[11] Page 27
[12] Page 35
[13] Page 36

Environment that these small (technical) shortages could be accommodated either within other towns or by slightly more intensive development than assumed in the model. Both of those outcomes could occur and the small undersupply may not eventuate."

68. It is expected the medium term and long-term shortfall would most likely be able to be accommodated in other towns such as Rangiora and Kaiapoi. There is sufficient capacity in the urban environment to meet expected demand for both the medium and long term demand. [14]

69. Based on the analysis provided in the WCGM23 report, I consider that residential capacity is met. This matter is being revisited as part of the residential rezoning requests which will be heard in Hearing Stream 12E which includes rezoning requests for Rangiora, Kaiapoi, Woodend and Variation 1.

70. I have considered the contribution to meeting residential supply as part of the two rezoning requests later in this report.

3.1.5 Background to existing residential supply in SPZ(PR)

71. Applications (RC055641 and RC055642) were granted in 2006 to subdivide and create 98 residential allotments, along with a golf course, driving range complex and ancillary activities, clubhouse, golf maintenance area and road to vest. This decision is attached as **Appendix G**. At the time of notification of the Proposed Plan this subdivision had been completed and there was exiting residential housing to the south and north of Pegasus Boulevard. The area subject to the Pegasus Resort (including residential development) is shown in grey shading in **Figure 5** below.

72. The commissioners in those applications considered that the proposal would *"maintain rural amenity, quality of the environment and character"*,[15] and were satisfied that the granting of consent would not create any precedent effect particularly as the Mapleham Rural 4B and Pegasus Rural Zone (Special Purpose Area) do not appear elsewhere within the Operative Plan. They considered the fact that the proposal was an integrated approach to create a golf course with associated infrastructure and residential sites incorporated within that golf course to be a further unique feature of the proposal.

73. The notified SPZ(PR) includes residential activities with an average lot size of 2,000m^2 for this area. The zone includes a limited mix of commercial activities that support the tourism activities, such as ancillary office.

[14] Page 35-36
[15] Paragraph 302

3.1.6 Location of rezoning request sites

74. The location of the rezoning request sites and existing Pegasus Resort are shown in Figure 5 below.

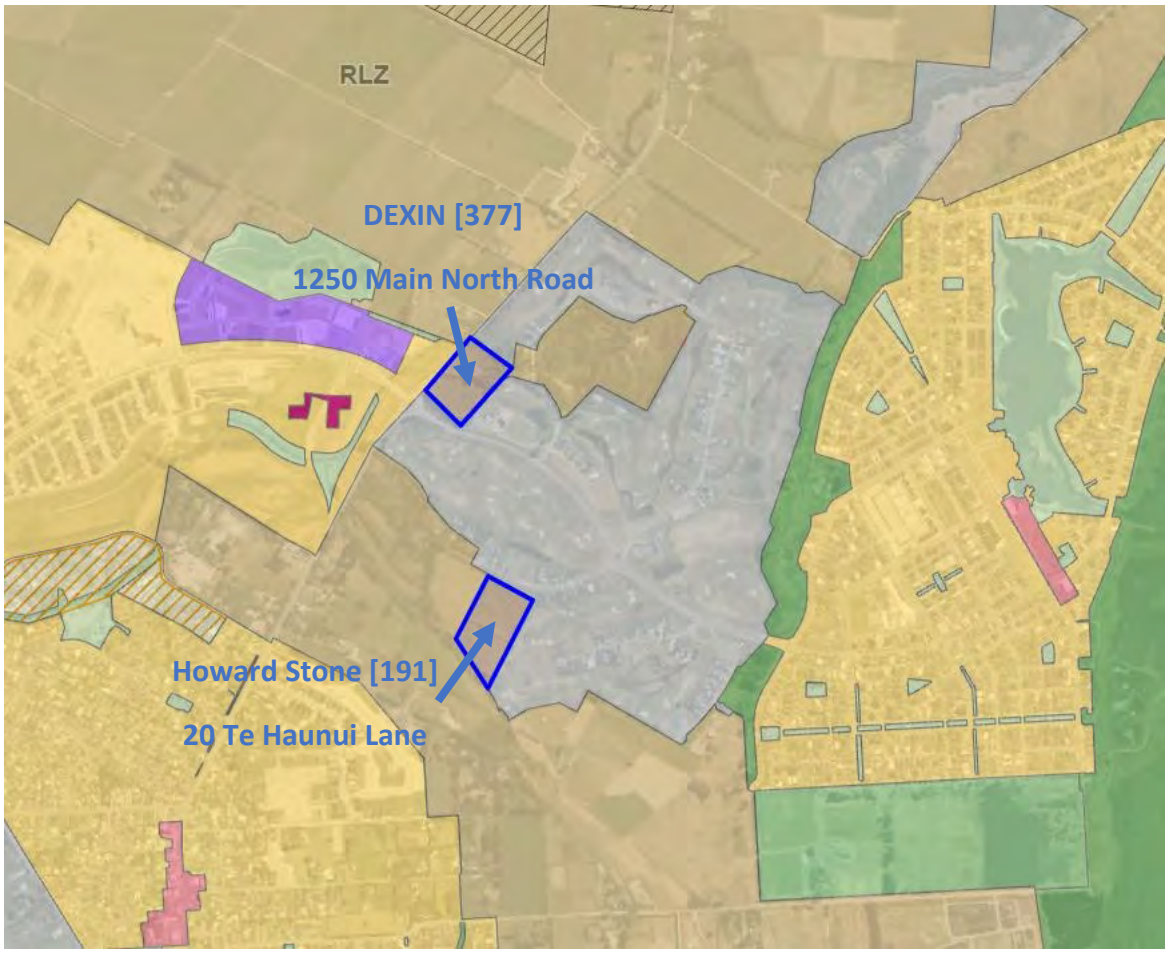


Figure 5: Location of the rezoning requests (blue outline) and existing Pegasus Resort (grey shading). Source: Proposed Plan.

3.2 1250 Main North Rd

3.2.1 Matters raised by submitters

75. DEXIN [submission 377] is seeking rezoning of 1250 Main North Rd from proposed RLZ to SPZ(PR). They seek for the site to be utilised for makete tourism activities and a limited amount of medium density residential activities within two new activity areas.

76. I note that submission [377] is not requesting to be rezoned to MRZ, but rather have an activity area with a set of residential standards that are similar to those that were notified as part of Variation 1. I address these submission points in this s42A report below.

77. DEXIN has provided reports along with its further submission [FS101] to support the rezoning of land. These include:

- an Indicative Mākete[16] Masterplan,
- a s32AA evaluation,
- an economic assessment,
- an integrated transport assessment,
- an ecology assessment,
- a landscape effects assessment,
- an infrastructure servicing report,
- an urban design assessment,
- amended SPZ(PR) chapter provisions,
- consequential amendments to district-wide provisions,
- an amended ODP (to include the site), and
- amended Pegasus Design Guidelines.

78. DEXIN also provided technical information which has informed the preparation of this report. These documents are available on the District Council website[17] and include:

- a memorandum responding to information gaps as per Minute 1[18],
- a Desktop Natural Hazards Risk Assessment Report,
- a Cultural Impact Assessment,
- SPZ(PR) Updated Provisions, and

[16] 'Mākete' is defined by the Te Aka Māori dictionary as market, auction
[17] https://www.waimakariri.govt.nz/council/district-development/proposed-district-plan-hearings/hearing-streams/hearing-stream-12a-commercialindustrial,-oxford-and-surrounds,-pegasus-resort
[18] Paragraph 74

- Updated Pegasus Design Guidelines.

79. In addition to the rezoning request, the amendments sought to provisions include the following:

    - Amendments to the SPZ(PR) 'Introduction' to incorporate reference to the proposed additional activity areas on the site at 1250 Main North Road, and inclusion of new area descriptions:
        - Activity Area 7B: Residential (Medium Density); and
        - Activity Area 8: Agricultural Tourism.
    - Existing Activity Area 7, is proposed to be renamed to Activity Area 7A: Low Density Residential;
    - Amendments to objective SPZ(PR)-O1 (*Tourist destination*) to include reference to the establishment of medium density residential activity and Mākete tourism activities;
    - The further submission seeks amendment to SPZ(PR)-O2 *(Design components)* to add *", and tourism and residential activities centred on a Mākete Village"* and the updated provisions provided with the technical information seek to provide for cultural values. These specific amendments to SPZ(PR)-O2 were not included in the original submission but I consider the original submission provided the scope for relief to provide an updated and amended version of the chapter provisions, as well as additional technical reports and assessment.
    - Amendments to policy SPZ(PR)-P1 *(Outline development plan)* to include reference to medium density residential, and Mākete tourism. The technical information seeks to also provide for cultural values;
    - Amendments to policy SPZ(PR)-P4 *(Provision of commercial activities)* to ensure agricultural tourism commercial activities are provided for;
    - Amendments to policy SPZ(PR)-P5 *(Urban design elements)* to add scope for the consideration of agricultural architecture design within new Activity Area 8 (Agricultural Tourism);
    - The submission sought amendments to policy SPZ(PR)-P9 *(Residential development)* and/or inclusion of a new policy to provide for medium density residential activity (new Activity Area 7B) within proposed Activity Area 7B (Medium Density Residential). I note that amendments to this policy are now not being sought; and
    - Amendments to the existing activity rule framework, built form standards, and matters of control and discretion that relate specifically to the new Activity Area 7B and Mākete tourism area.

80. DEXIN [377.18] seeks relief to enable any amendments to proposed district-wide provisions which apply to the subject site, where they do not align with the development intention of its submission. These have been provided with DEXIN's further submission. These include a definition of 'Mākete tourism' and an amendment to SUB-S1 *(Allotment size and dimensions)* to include Activity Area 7B and 8 in the minimum allotment sizes at Table SUB-1 for SPZ(PR).

81. DEXIN considers *"the proposed tourism activities and residential activities are consistent with the range of activities anticipated in the notified version of the SPZ(PR)"* and the site *"would become an agricultural tourist destination based around a local farmers market, in the style of Matakana Market (north of Auckland)…"*

82. The submitter anticipates that the agricultural tourism activity area will cover the majority of the subject site (approximately 16,500m^2).

> *"The foundation of the area will be a market area to provide for local producers to directly retail produce. The area will be supplemented by visitor attractions that will provide educational and entertainment experiences to visitors to highlight sustainable production of food and materials."*[19]

83. DEXIN'S submission points [377.1 to 377.18] are supported by S&E Corp [FS100].

3.2.1 Assessment

3.2.1.1 The site and proposal

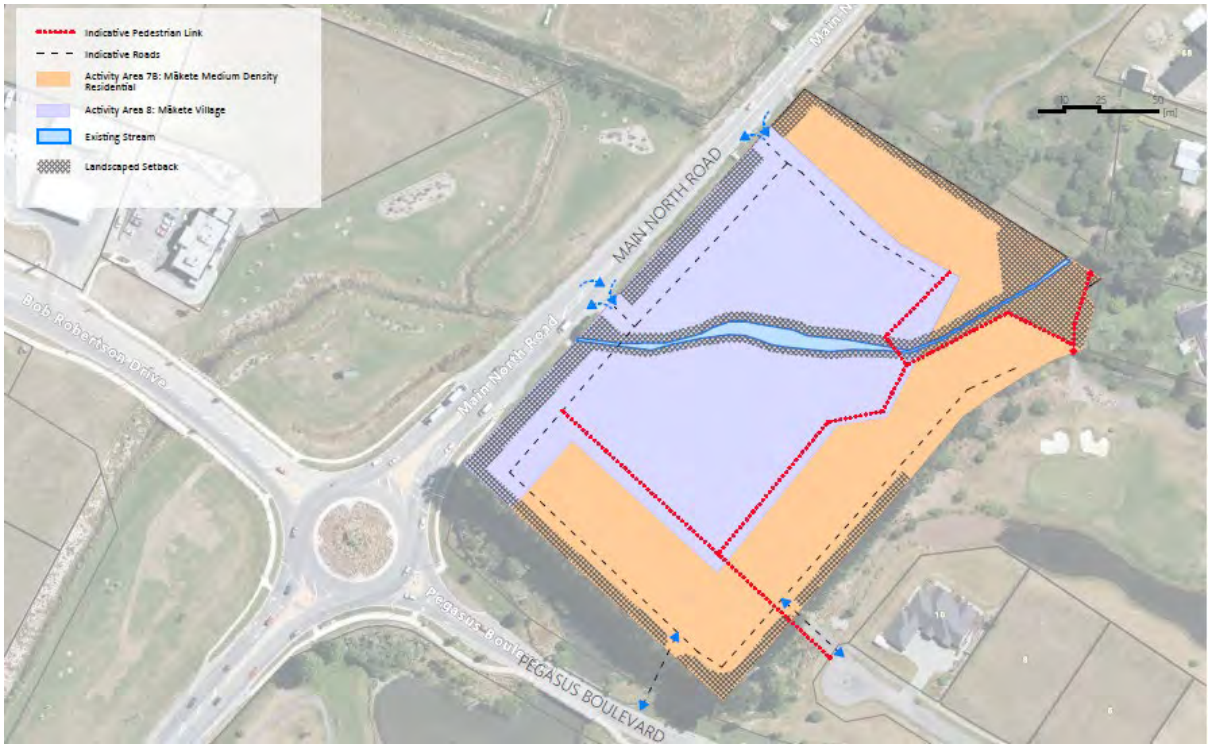


Figure 6: 1250 Main North Rd Rezoning Request: Showing requested addition to ODP. Source: Further submission 101, Appendix 3: Amended Outline Development Plan.

84. The Pegasus Mākete site (the site) is located at 1250 Main North Road and is Rural Zone under the Operative District Plan and RLZ under the notified Proposed Plan and is approximately 3.05ha.

85. As noted in the further submission, DEXIN own the site, which is legally described as Part Rural Section 864 held in Record of Title 1078395. Record of Title 1078395 also contains *Lots 97 and 700*

[19] FS101 Appendix 6: Section 32AA Report, page 3

Deposited Plan 417391 which are currently located within the SPZ(PR) and are not subject to the requested rezoning. In summary, the rezoning sought covers all of the areas where further SPZ(PR) activities may occur.

86. The site adjoins to the notified proposed SPZ(PR) to the south, southeast and north and is a continuation of the RLZ to the north east (the Mapleham ODP). Refer to Figure 7 below.

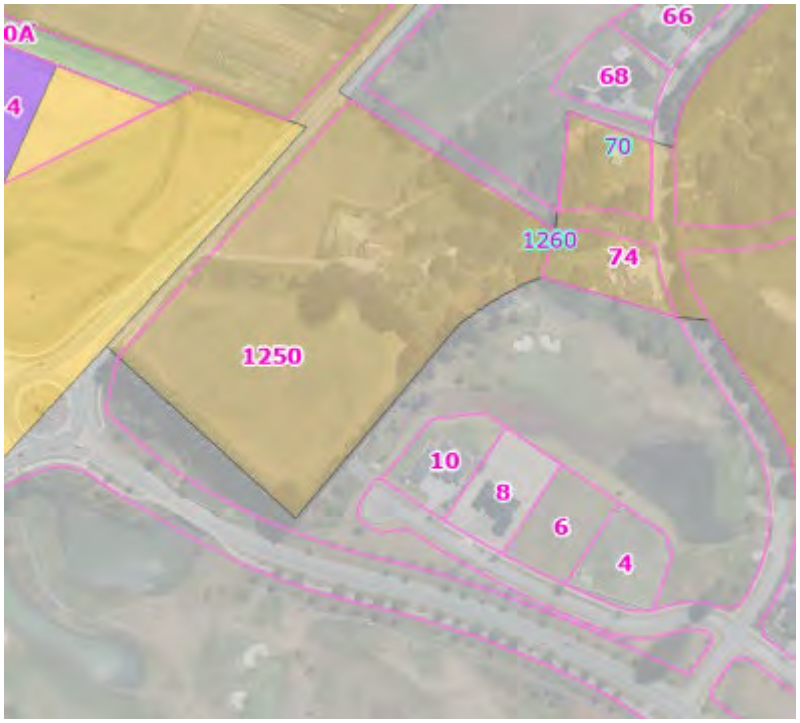


Figure 7: 1250 Main North Road and immediate surrounds. Source: Proposed Plan.

87. Appendix SPZ(PR) – APP1 – ODP shows the site being bordered by *'Activity Area 6 – Golf Course'* along its southern and eastern boundaries and on the other side of the strip of land to the north (zoned SPZ(PR)).

88. I note that the reporting officer for the Commercial and Industrial Rezoning s42A report[20] (Andrew Willis) recommends transferring the Operative District Plan PC30 outcomes into the Proposed District Plan, which in part is to zone the land across the Main North Road as GIZ and TCZ (refer to Figure 8).

[20] Section 3.10

DEV-NWD-APP1 – North Woodend Outline Development Plan

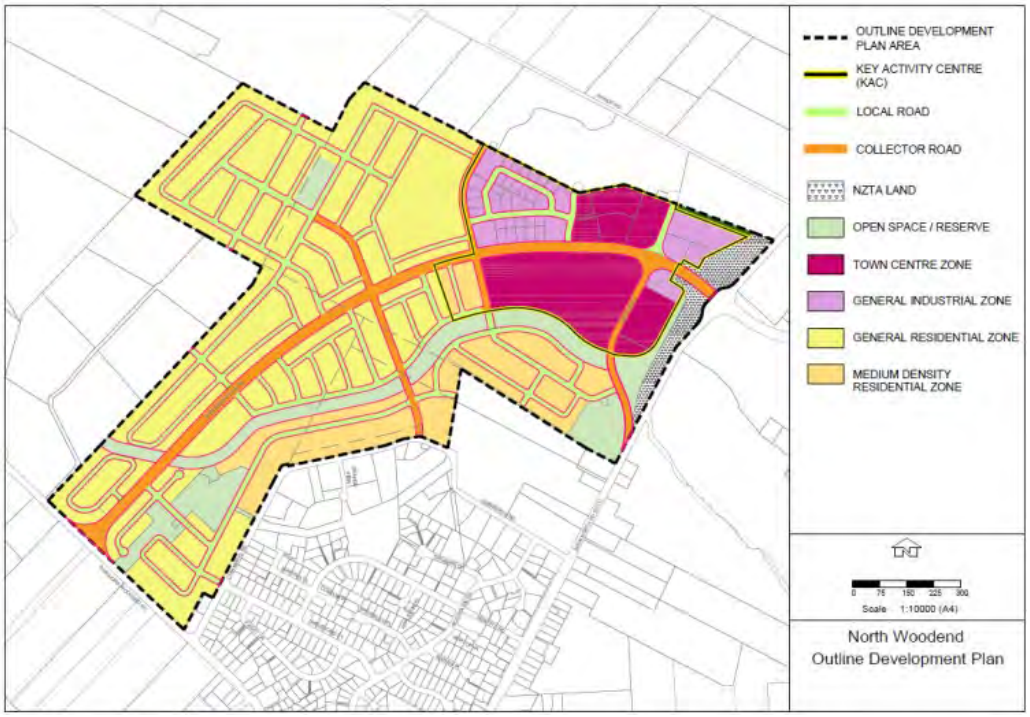


Figure 8: DEV-NWD-APP1 – North Woodend Outline Development Plan

89. The site is connected to Pegasus Town by Pegasus Boulevard but the site and Pegasus Resort are separated from Pegasus Town to the east by the Natural Open Space Zone (NOSZ). Pegasus Resort is physically separated from Ravenswood to the west by the Main North Road.

3.2.1.2 Location and function

90. CRPS Objective 5.2.1 Location, Design and Function of Development (Entire Region) clause 1 seeks that development is to be located and designed so that it functions in a way that achieves consolidated, well designed and sustainable growth in and around existing urban areas as the primary focus for accommodating the region's growth. As the development is outside the Existing Urban Areas", Greenfield Priority Areas or Future Development Areas (FDAs) of Map A, I have used this objective to assess the proposed rezoning later in my report. I note, as outlined in the CRPS, a consolidated pattern of urban development minimises energy use; promotes more sustainable forms of development; encourages greater modal choice, reduces trip distances, promotes healthier transport options; provides for the efficient use of existing infrastructure; and maintains regional identity and character.[21]

91. The Mākete Village (proposed as Activity Area 8) would adjoin the Main North Road and is proposed to be surrounded by residential that is medium density with lot sizes an average 200m^2 -300m^2 (Activity Area 7B). However, I note that DEXIN has requested a no minimum lot size in Table SUB-1.

[21] CRPS, Objective 5.2.1 Principal reasons and explanation, page 47

92. DEXIN considers the proposal to be a natural extension to the SPZ(PR) as *"it is a corner site directly adjacent to the SPZ(PR), bordered on three sides by the Pegasus Golf Course"* and considers that there are *"wider benefits to be had from agglomerating a broader range of tourism based activities in the same location."*[22] The s32AA assessment provided with the further submission states that, although the site is beyond the existing urban boundary of Woodend, the Key Activity Centre (KAC) is easily accessible from the site.

93. The Urban Design Report, prepared by Common Ground Southern, provided with the further submission describes the development as a "gateway" to Pegasus Town and Ravenswood and provides a mix of visitor uses and housing opportunities that are unavailable in the SPZ(PR) or Ravenswood commercial development.

Activity Area 8 – Mākete Village

94. Well-functioning urban environments under the NPS-UD Policy 1 clause (b) are to have a variety of sites that are suitable for different business sectors in terms of location and site size. Furthermore, business activities are to be provided for in appropriate locations under the CRPS to ensure sustainable economic development (Objective 5.2.1(2)(c)).

95. New commercial activities are to be primarily directed to the KACs and neighbourhood centres but a range of other activities are to be provided in appropriate locations (CRPS Objective 6.2.6 *Business land development*). Commercial activities are not to not give rise to significant adverse distributional or urban form effects and the function and role of KACs and neighbourhood centres is to be recognised (CRPS Policy 6.3.6(4) *Business land*).

96. I note that the CRPS identifies the general area of Woodend/Pegasus for a KAC but the KAC definition in the Proposed Plan does not identify a KAC in this area. Whether Ravenswood would provide a KAC in the general area and be included in the KAC definition is to be considered as part of the Commercial/Industrial Rezoning Requests in Hearing Stream 12A.

97. The purpose of the Special Purpose Zone (Pegasus Resort), as outlined in the Introduction to the chapter, is to provide for a high-quality visitor resort centred around the existing 18-hole international championship golf course.[23]

98. The s32 report noted that a resource consent had "*recently been approved signalling that some urban activities supporting the golf course are appropriate in this location, subject to considerations of scale, character and links to existing tourism activities".*[24] The SPZ(PR) s32 identified the notified zone as being an appropriate location for a tourism resort centred on the existing golf course. The zone is intended to include a golf course, hotel, visitor accommodation, spa/wellness and hot pool complex, golf education and country club.

99. The SPZ(PR) is intended to have limited small-scale commercial activity. SPZ(PR) does not include the typical activities of a town or village such as food and beverage outlets, supermarkets and

[22] Submission 377, page 2
[23] Pegasus Resort Chapter Introduction
[24] Section 32 Report: Whaitua motuhake/ Special Purpose (Pegasus Resort) Zone, page 22

service stations. These are intended in nearby areas and not in the SPZ(PR) itself such as the Local Centre Zone (LCZ) in Pegasus and the Town Centre Zone (TCZ) of Ravenswood.

100. The submitter has provided an economic assessment which concluded the requested rezoning will not adversely affect the function and viability of the KACs.[25]

101. In my view, linking the development to the existing tourism activities would ensure the development is suitable for the SPZ(PR) and does not give rise to adverse distributional or urban form effects. I have provided some comments on the 'makete tourism activities' definition in section 3.2.1.15 of this report.

102. In regard to the linkages to the existing tourism activities, the site is separated from the existing and proposed tourism activity of Activity Areas 1-4 which, in my view, has the potential to result in a discontinuous built-form without a clear central point for tourism activity and would not be coherent and achieve consolidated growth in accordance with Objective 5.2.1(1) and is not well-integrated in accordance with Policy 6.3.2.

Activity Area 7B - Mākete Medium Density Residential

103. Activity Area 7B is proposed to be 10,220m^2. The submitter states that it is likely the subject site would accommodate approximately 40 houses in the form of terraced housing or semi-detached townhouses, with lot sizes an average 200m^2-300m^2. However, I note that the submitter has requested a no minimum lot size in SUB-S1.

104. I have considered the proposal based on the existing form of the development in the surrounding environment and its relationship with the SPZ(PR) and the purpose of the zone. The site is located near existing urban areas and Greenfield priority areas of Map A, and near jobs and community services.

105. While I acknowledge the proposal provides housing opportunities, the requested residential does not achieve a consolidated form with the MRZ to the north west of the site across the Main North Road as this land which was notified as MRZ is not now being proposed to be used for medium density residential, as it contains a stormwater channel and the NZTA-3 designation. Further, as noted above, the reporting officer for the Commercial and Industrial Rezoning Mr Willis, recommends transferring the PC30 outcome into the Proposed District Plan to zone the land across the Main North Road that is not subject to designation NZTA-3, as GIZ and TCZ.

106. SPZ(PR) is also separated by the zoned MRZ urban area of Pegasus Township by the NOSZ - described in the Operative District Plan as the Western Ridge Conservation Area. The general area contains the Mapleham Development Area which has development limitations due to the flooding area surrounding Taranaki Stream. The area is also of significance to Ngāi Tūāhuriri. For these reasons, I consider it would not be suitable for a higher density of development.

107. In my view, development on the site could set a precedent for medium density enclave separated from and not well integrated with other residential areas in the area or the Pegasus Resort which is intended as a tourist destination, would provide for a greater intensification of

[25] Further submission 101 Appendix A

residential activity than currently provided in the zone, and would therefore not be in accordance with SPZ(PR)-O1, SPZ(PR)-O2, and SPZ(PR)-P9.

108. Therefore, in my view, it does not achieve consolidated growth in accordance with Objective 5.2.1(1) and is not well-integrated in accordance with Policy 6.3.2.

Figure 9: 1250 Main North Road looking north towards the Main North Road and GIZ.

3.2.1.3 Housing choice and development capacity

109. A well-functioning urban environment is to *"have or enable a variety of homes that:*

(i) meet the needs, in terms of type, price, and location, of different households"" (NPS-UD, Policy 1(a)(i)).

110. The CRPS Objective 5.2.1(2)(b) requires development to be located and designed so that it functions in a way that provides sufficient housing choice to meet the region's needs.

111. The Waimakariri Residential Capacity and Demand Model concluded there could be a shortage of residential supply in Woodend-Pegasus. However, the model concluded that the need in this particular location can be provided in other areas as sufficient development capacity has been provided across the District.[26]

112. I note there is no existing medium density residential in the SPZ(PR) but there is MRZ in nearby Pegasus, Ravenswood and Woodend. The residential provided for within the SPZ(PR) has an average lot size of 2000m^2 (Activity Area 7). For the proposed residential Activity Area 7B, 10,220m^2 would equate to adding an additional five residential units. The submitter seeks a no minimum lot size for the residential on the site.

113. The medium-term projected shortage of residential units in Woodend/Pegasus is 280 units and the long-term projected shortage is 3050 units in Woodend-Pegasus. However, this can be provided in other areas in the district [27], and is anticipated to be provided for through the residential rezoning requests. In my view, capacity is best located in the Residential Zones which are intended for residential activities.

114. I understand that the submitter intends to address whether the development would contribute significant development capacity through both economic and planning evidence at the

[26] Waimakariri Residential Capacity and Demand Model – IPI 2023: Economic Assessment
[27] Waimakariri Residential Capacity and Demand Model – IPI 2023: Economic Assessment

hearing. However, at this point in time, I am of the view that the proposal does not contribute significantly to development capacity.

3.2.1.4 Transportation and accessibility

Transport infrastructure

115. Development is to be compatible with and not adversely affect the operation, use, appropriate upgrade and future planning of regionally significant infrastructure or adversely affect the strategic land transport network (CRPS Objective 5.2.1(2), Objective 6.2.1(10), Policy 5.3.7)). The site is subject to NZTA designations 1 and 3 with both designations cutting across the front of the site (refer to Figure 10).

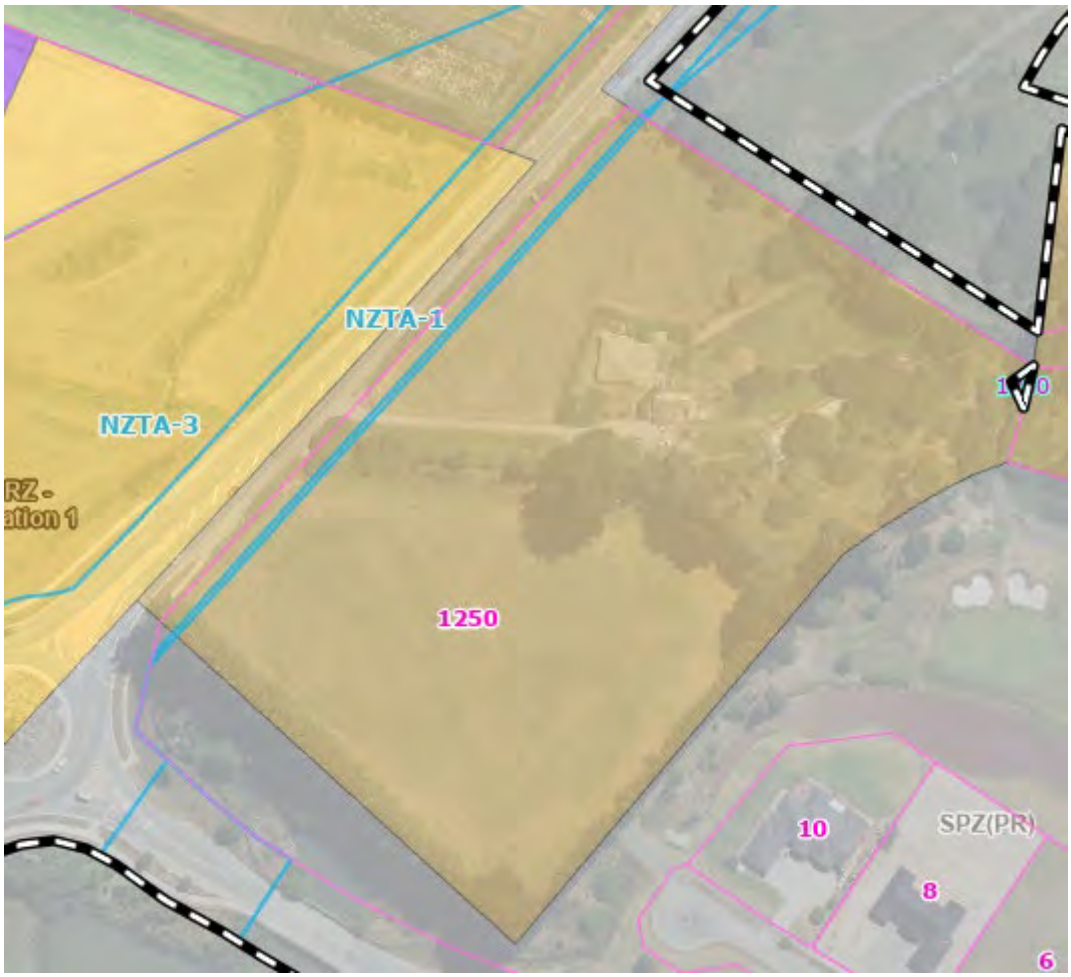


Figure 10: NZTA designations 1 and 3 with both designations cutting across the front of 1250 Main North Road.

116. The District Council's Senior Transportation Engineer Mr Binder considers there to be *"insufficient information available at this time to conclude that there will be no substantive effects*

on transport safety or operations."[28] Mr Binder has listed the areas of concern or still lacking detail in a memorandum attached as **Appendix E** to this report.

117. Mr Binder is of the view that access to the site should be from Burntwood Lane. He considers access point(s) from SH1 north of the Pegasus Roundabout presents a substantive safety risk[29]. I note that NZ Transport Agency Waka Kotahi was not a submitter on this matter.

118. Mr Binder also notes the separation between the proposed Pegasus Boulevard access point also does not meet the Waka Kotahi Planning Policy Manual (App 5B) and Austroads AGRD03 guidance/requirements on access spacing. However, the distance would appear to meet Proposed Plan separation distances in Table TRAN-17. He notes this may not be achieved after the Woodend Bypass upgrades have been undertaken and recommends consultation with Waka Kotahi on these matters.

119. I note that the proposed access points to Burntwood Lane and Pegasus Boulevard crosses land that is not within the submission and is part of Activity Area 6: Golf Course. The submitter also owns this land.

Accessibility

120. A well-functioning urban environment is to *"have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport"* (NPS-UD, Policy 1(c) and is to *"support reductions in greenhouse gas emissions"* and be *"resilient to the likely current and future effects of climate change"* NPS-UD, Policy 1 (e and f).

121. Development is to be located and designed so that it *"minimises energy use and/or improves energy efficiency"* (CRPS Objective 5.2.1(2)(d).

122. The closest centre zone is the TCZ of Ravenswood which is approximately 225m from the site and on the other side of the Main North Road. The site is more than 1.5km from the LCZ of Pegasus. The further submission states it is within a 10 minute walk of the nearest bus stops which are nearby on Pegasus Boulevard.[30] I consider that the bus stops are accessible on the Pegasus side of State Highway 1.

123. Principal Planner Melissa Pearson, on behalf of DEXIN, has addressed NPS-UD Policy 1(e) and Policy 1(f) provided in section 2.0 of the memorandum dated 5 March 2024. Ms Pearson states that a well-functioning urban environment can reduce greenhouse gas emissions *"by enabling people to live near where they work and putting employment and entertainment opportunities in locations that are easily accessible".* [31]

124. I agree that it is in a location (especially if people living in Activity Area 7B were also working in either the Mākete tourist area or across the Main North Road at Ravenswood) that is near employment and entertainment opportunities, and public transport. In my view, to ensure good

[28] Appendix E
[29] Statement of evidence of Shane Binder (Transport), John Aramowics (Servicing, Hazards), Christopher Bacon (Servicing, Hazards) on behalf of Waimakariri District Council, Attachment A, row 1, column transport
[30] Refer to further submission 101, Appendix D, section 6
[31] Page 4

accessibility and support reductions in greenhouse gas emissions, the proposal would benefit from a pedestrian link to Ravenswood. Mr Binder is also of the view that a more direct pedestrian link should be included to the Pegasus Roundabout, bus stops and potentially Ravenswood.

125. In my view, the transportation aspects of the proposal have not sufficiently been addressed. DEXIN is to address non-motorised access including pedestrian/cycle crossing to Pegasus centre and Ravenswood and intends to provide further traffic engineering evidence as part of Hearing Stream 12A.

3.2.1.5 Character and amenity

126. Development is to be located and designed so that it functions in a way that *"enables rural activities that support the rural environment including primary production"* (CRPS Objective 5.2.1(2)(e)) (Entire Region) and development is to be enabled through a land use and infrastructure framework that *"maintains the character and amenity of rural areas and settlements"* (CRPS Objective 6.2.1(7).

127. I note that even though the site has a classification of LUC2, the productive use of the land is restricted as it is an undersized rural allotment isolated from adjoining rural land. The site is not currently in productive use.

128. The submitter considers the site *"does not form part of an area with strong rural character or productivity characteristics"*[32]. I agree with this statement. The GIZ and TCZ of Ravenswood are located across the Main North Road from the site and to the southeast, east and north east are large residential lots.

129. I note that the site connects to existing proposed SPZ(PR) to the south and east which includes Activity Area 6: Golf Course and Activity Area 7: Residential.

[32] FS101 Appendix 6: Section 32AA Report, page 23

Figure 11: 1250 Main North Road and surrounds. Source: Proposed District Plan maps.

130. There is RLZ to the north east - the Mapleham Development Area. The Mapleham Development Area has a minimum density of 1ha and average of 1.5ha and has an identified flooding area surrounding Taranaki Stream. I note that there is a rezoning request in the Mapleham Development Area for 70 and 74 Mapleham Drive [91.1], which is seeking residential zoning. This submission has been allocated to the residential rezoning requests.

131. 1250 Main North Road would be separated from the notified MRZ to the North West of the site by the Main North Road. The land in the North West contains a stormwater channel and is part of the NZTA-3 designation.

132. The site provides rural outlook for residential units on Burntwood Lane and Mapleham Drive.

133. An Urban Design Assessment was prepared by James Lunday and provided with the further submission. It concluded the development to be complimentary to the Pegasus Golf Course.

134. I undertook a site visit on 20 March 2024 and, from a planning perspective, I consider the reduction of open space from the surrounding sites would be minimal due to the large setbacks and the outlook onto the golf course and Taranaki Stream, as shown in the image below.

Figure 12: Outlook of 10 Burntwood Lane towards 1250 Main North Road.

135. However, there would be some loss of character values, particularly on the subject site itself as a medium density built-form is anticipated rather than large residential lots in the SPZ(PR).

136. As noted in the Landscape Effects Assessment prepared by Mike Moore and provided with the further submission, there will be some adverse effects on 10 Burntwood Lane in terms of visual amenity from the residential buildings up to 12m high. Overall, Mr Moore considers the landscape effects as positive/moderate.

137. I consider the site itself would be a different character than the surrounding environment. As noted in the Landscape Effects Assessment, boundaries are to be provided with landscaping to screen and soften views of built form from beyond the site.[33] In my view, from a planning perspective, the open space and parkland character would mostly be retained from the surrounding sites and give effect to SPZ(PR)-P3 as landscape character values will continue to be provided for.

3.2.1.6 Cultural values

138. A well-functioning urban environment under the NPS-UD enables Māori to express their cultural traditions and norms (Policy 1(a)(ii). Planning decisions relating to urban environments are to take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) (NPS-UD, Objective 5).

139. As noted in the s32AA assessment, provided by the submitter with the further submission, the site is located within Sites and Areas of Significance to Māori (SASM) overlays. Engagement with Mahaanui Kurataiao Limited on behalf of Ngāi Tahu (mana whenua of the Canterbury Region) and Te Ngai Tūāhuriri Rūnanga is ongoing to resolve concerns with the proposal (see page 21-22 of submitter's s32AA).

140. A Cultural Impacts Assessment (CIA) has been provided which recommends amendments to the Introduction, SPZ(PR)-O2, SPZ(PR)-P1, and the Pegasus Design Guidelines to better provide for consideration of cultural values, collaboration with mana whenua and development/enhancement of waahi taonga and mahinga kai. The report concludes that *"little or minimal impact on cultural values is foreseen and all reasonable and realistic mitigation measures have been identified…"*[34]

141. I adopt the assessment provided and consider the amendments to provide for cultural values requested by the submitter are positive amendments to provide for cultural values. I note that some amendments are specific to the activity on the site and I recommend they are accepted if the rezoning request was to be accepted.

142. There are other amendments that apply to cultural values across the whole of the zone and, in my view, should be accepted regardless of the rezoning outcome. I have recommended a shortened version of SPZ(PR)-O2 than sought by DEXIN so that the policy is not a repetition of the objective and implements the objective. I have shown these as amendments in **Appendix A** and have provided a s32AA assessment as **Appendix C**.

[33] Further Submission 101: Landscape Effects Assessment, prepared by Mike Moore, page 5
[34] Page 34

3.2.1.7 Three waters infrastructure

143. Urban development that affects urban environments are to be integrated with infrastructure planning and funding decisions (NPS-UD, Policy 6).

144. I have viewed the reports provided with the further submission and have sought technical advice from the District Council's Project Delivery Unit. District Council Consultant Civil Engineer Mr Aramowicz is of the opinion that onsite stormwater treatment and disposal/attenuation is achievable at the site but notes the developer will need to avoid any increase in risk of flooding to adjacent/downstream properties[35].

145. The submitter has confirmed that treatment and attenuation will be provided prior to discharging to the stream running through the site.

146. Mr Aramowicz has advised that wastewater will need to be either pressure gravity or gravity sewer fed into a pumping station, then fed into the Ravenswood rising main. However, he notes, District Council asset managers may not support this option so the site may need to run its own rising main west under SH1 and connect to the Kesteven pump station in Ravenswood or run a new rising main east to the Main Street pump station in Pegasus or directly to the WWTP. He further notes that there is no capacity in the Mapleham STEP system for the development and the cost of sewer servicing is likely to be high.

147. Irrespective of the design solution, Mr Aramowicz is of the opinion that the proposal can be serviced by the existing District Council water supply[36].

148. Based on this information above, I consider three waters servicing for the site can be provided but note the developer would need to be aware of the potentially high cost of sewer servicing.

3.2.1.8 Terrestrial and aquatic impacts

149. The submitter has provided an ecological assessment as Appendix F to the further submission. The report concluded that the ecological values of Taranaki Stream are to be maintained within the ODP.

150. As Taranaki Stream crosses through the site, the esplanade reserves or strip standard SUB-S17(c) would apply to the site which requires an esplanade strip to be set aside. The NATC-SCHED2 setback of 10m also applies. A landscaped setback is shown in the amended ODP Plan (Appendix 3) in the further submission. DEXIN intends to provide a revised Outline Development Plan at the hearing. According to a memorandum from Ms Pearson (5 March 2024), the intent is for the revised ODP to have a 10m landscaped setback from the existing bank of the Taranaki Stream.[37]

[35] Statement of evidence of Shane Binder (Transport), John Aramowics (Servicing, Hazards), Christopher Bacon (Servicing, Hazards) on behalf of Waimakariri District Council, Attachment A, row 1, column servicing
[36] Statement of evidence of Shane Binder (Transport), John Aramowics (Servicing, Hazards), Christopher Bacon (Servicing, Hazards) on behalf of Waimakariri District Council, Attachment A, row 1, column servicing
[37] Page 2

3.2.1.9 Natural hazards and geotechnical

151. I have considered whether the development would protect people from unacceptable risk from natural hazards and the effects of sea-level rise (CRPS Objective 6.2.1(8)), and if it is resilient to the likely current and future effects of climate change (NPS-UD, Policy1 (f)).

152. Parts of the site adjoining Taranaki Stream and the northeast corner are subject to the Urban Flood Hazard Assessment Overlay and will be subject to the Natural Hazards Chapter provisions that apply to this overlay. This includes NH-R1 that requires buildings for natural hazard sensitive activities is erected to the level specified in an existing consent notice.

153. The revised ODP presented in evidence is to confirm that the area of the site subject to the Urban Flood Assessment Overlay will be contained within the landscaped setback.

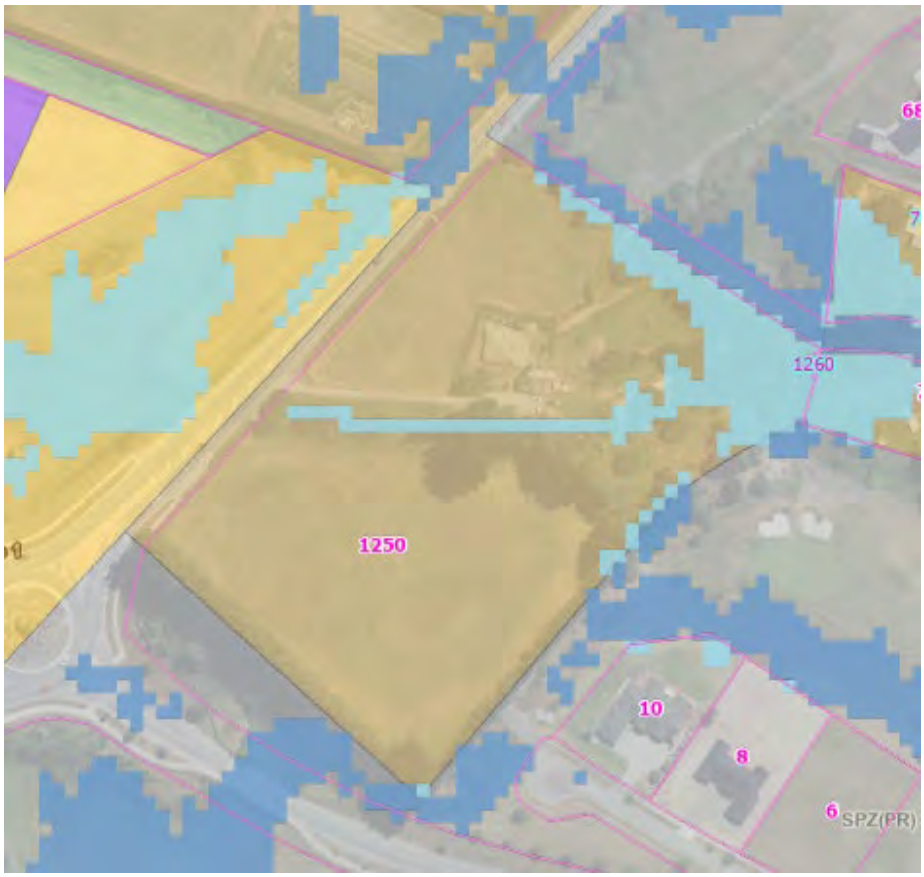


Figure 13: Urban Flood Assessment Overlay that applies to 1250 Main North Road shown in light blue. Source: Proposed District Plan.

154. The Desktop Natural Hazards Risk Assessment Report prepared for DEXIN concluded that if normal good practice investigation, design and development controls are implemented then there would be no significant risks from natural hazards.

155. The District Council's Senior Civil Engineer Mr Aramowicz has reviewed the information and advises there are no significant natural hazards that cannot be addressed at the time of detailed engineering design. He notes the presence of Taranaki Stream that will need protection and appropriate setbacks. He recommends the developer be required to achieve low-moderate risk

of liquefaction induced damage to land, services and other District Council infrastructure[38]. I accept Mr Aramowicz advice.

3.2.1.10 ODP

156. CRPS Policy 6.3.3 sets out that subdivision of Greenfield priority areas, Future Development Areas and rural residential development must not proceed ahead of the incorporation of an ODP, and for the ODP to show relevant land uses. While the site is not a Greenfield Priority Area or Future Development Area, this provision is useful to demonstrate how the proposal would meet these. DEXIN has provided an updated ODP with the further submission as Appendix 3 to include the site.

157. I note that the landscaped setback for Activity Areas 1 and 4 and the road access points in Activity Area 3 for the notified zone have been missed off and the submitter has confirmed they will provide an updated ODP showing these as part of evidence.

158. I also note that 65A Mapleham Drive, which is narrow and half a hectare in size, is not shown on the notified ODP. It was zoned Mapleham Rural4B under the Operative District Plan, and part of the Mapleham ODP, and is zoned SPZ(PR) under the notified Proposed Plan. DEXIN has confirmed that its omission from the notified ODP was an oversight and intends to provide an updated ODP at Hearing Stream 12A showing it as part of Activity Area 7A, so it matches the activity area of the northern side of Mapleham Drive. I consider that, due to the narrowness of the site, it may be more logical extension of Activity Area 6: Golf Course.

159. DEXIN anticipates further ODP amendments as a result of further traffic engineering work.

3.2.1.11 Noise and Vibration

Figure 14: Looking from the site towards the Main North Road

160. Ms Pearson has addressed mitigation of the noise and vibration from the Main North Road and the mitigation of internal noise effects of tourism activities on residential development, in her memorandum dated 5 March 2024.

[38] Statement of evidence of Shane Binder (Transport), John Aramowics (Servicing, Hazards), Christopher Bacon (Servicing, Hazards) on behalf of Waimakariri District Council, Attachment A, row 1, column hazards

161. I adopt Ms Pearson's assessment of state highway noise provided in the memorandum. However, when I visited the site, I noted that in my non-expert opinion, there were adverse noise effects associated with trucks braking into and accelerating out of the roundabout. In my view, despite application of NOISE-R16, this may result in adverse noise effects for outdoor living areas. However, I agree with Ms Pearson that there are benefits to having people living close to main transport routes. Ms Pearson notes that the ODP proposes non-residential activities in the part of the site directly adjoining the state highway and a mounded landscape barrier within the landscape buffer, which may block some of the state highway noise but acoustic advice has not been sought to confirm this.

162. I note that the noise levels for the SPZ(PR) in the Table NOISE-2 Noise limits would apply to noise received on the site which are 5dB higher than in the residential zones. A medium density of development was not anticipated in the SPZ(PR). However, the potential impacts of noise from Mākete Tourism Activities on residential could be considered under the restricted discretionary activity rule requested through the DEXIN further submission.

3.2.1.12 Amendments to provisions

163. DEXIN's original submission indicated the intention to circulate amended provisions before the convening of the hearing on the SPZ(PR) Chapter. DEXIN has provided amended SPZ(PR) provisions attached as Appendix 1 to the further submission and provided updated provisions along with the further information provided on the 5th March 2024. Regardless of the outcome of the rezoning request, I have provided some comment on the requested provisions in the sections below.

3.2.1.13 Activity Area 7B and Variation 1

164. The submitter seeks for Activity Area 7B to be *"a residential area that is equivalent to the notified Medium Density Residential Zone to which the MDRS applies….The intention is that any amendments to the Medium Density Residential Zone standards that arise from the Variation 1 process would be reflected in the Activity Area 7B provisions as the PDP moves through the Schedule 1 process."*[39]

165. I note that Variation 1 is subject to a different process which is detailed in Minute 1 from the Hearings Panel. The submissions on Variation 1 are being considered in the Hearing Stream 7 s42A report and, as this report has not yet been published, I am unable to consider the recommendations in this Hearing Stream 12A Pegasus Resort rezoning request s42A report. As they are subject to two separate processes, this could create issues and inconsistencies. For instance, if the maximum height of residential units changes as a result of Variation 1 then the built form could be inconsistent between Activity Area 7B and the medium density in the rest of the district. Furthermore, DEXIN has requested a no minimum lot size in SUB-S1 for both Activity Areas 7B and 8. This is consistent with the minimum allotment area for the MRZ but may result in inconsistencies in built form if there was a change to the Variation 1 provisions.

[39] Further submission 101, Appendix 6: Section 32AA Report, page 17

3.2.1.14 Height

166. DEXIN seeks a height of 12m at 3 storeys for Activity Area 7B and 9m at 2 storeys for Activity Area 8. The height limit for the nearby Activity Area 6: Golf Course is 6m at one storey and 10m at two storeys for the notified Activity Area 7: Residential. This could result in a 2m higher built form than the surrounding area. While I acknowledge there are higher limits in other activity areas in the zone, the site is separated from these areas and it could result in a discontinuous built form without a clear central point for tourism activity.

167. I note that the site is physically separated from the notified MRZ in Ravenswood by the Main North Road, which is subject to the NZTA-3 designation or is recommended by Mr Willis to be zoned GIZ/TCZ. The closest site adjacent to the road is not of a medium density built-form and contains a stormwater channel and is part of the NZTA-3 designation.

168. The Landscape Effects Assessment provided with the further submission considered the baseline provided for in the RLZ and notes a rural building of 12m high could be constructed 3m from the site boundary. This is correct. However, I note that residential units in RLZ are limited to a height of 10m and a setback of 20m from any internal boundary.

3.2.1.15 'Mākete tourism' activity

169. DEXIN seeks 'Mākete tourism activity' be RDIS where it occurs within Activity Area 8 and the design is in accordance with the Pegasus design guidelines. Specific Built Form Standards for Activity Area 8 include a building height limit of 9m at 2 storeys, a building coverage of 20 per cent, a building or structures setback of 30m from a State Highway, minimum landscaped area of 50 per cent. Matters of discretion include – design considerations, transportation, amenity values and flooding hazard.

170. 'Rural tourism'[40] can occur under the notified RLZ, subject to standards.

171. The submitter acknowledges the *"RLZ provisions enable 'rural tourism' activities but not at the type of intensity as sought"*, and seeks the following definition of 'Mākete tourism' is sought as follows:

"Means activities that support the tourism activities in the zone, including:
a. wellness activities;

---

1. [40] 'Rural tourism' is defined in the Proposed Plan and *"means the use of land or buildings for agri-tourism, eco-tourism, nature tourism, wine tourism and adventure tourism activities, which may be provided at a tariff, with participants experience primary production or conservation activities or the rural or natural environment. It includes, but is not necessarily limited to:*

a. guiding, training, education and instructing;
b. ancillary services such as booking offices, shelters, toilets and transportation;
c. ancillary retail activity;
d. walking and cycling tracks; and
e. viewing facilities."

b. food and beverage retail;
c. markets;
d. artisan workshops;
e. gift/souvenir shops;
f. manufacturing of food or beverage goods;
g. cultural facilities;
h. entertainment;
i. horticulture."

172. I consider the definition of 'Mākete tourism' is broad and could result in activities that are intended in the TCZ or LCZ establishing.

173. I consider, if the definition was to be accepted then, the term "including" should be replaced with "and is limited to".

174. In my view, 'wellness activities' is broad and should be refined to the type of wellness activities that are anticipated to occur on the site such as massage therapy and yoga.

175. The Proposed District Plan does not define *'food and beverage retail'* but does include a definition for *'food and beverage outlet'*[41]. I consider the use of either of these terms could result in activities that extend beyond the tourism purpose of the site.

176. In my view *'Market'* is also an uncertain term. The Proposed District Plan utilises the terms 'community market', farmers' market, and 'supermarket'. As stated in the submission, the submitter intends for the site to include farmers' markets so I would recommend the use of this term if the definition was to be accepted. I note that farmers' markets are RDIS under the notified RLZ of the site.

177. I consider manufacturing of food or beverage goods could be of an industrial activity and consider small-scale manufacturing of food and drink could be undertaken as artisan workshops. I recommend the deletion of this term from the definition of 'makete tourism' if the defined term was to be included in the plan.

178. 'Cultural facility' is defined by the Proposed Plan as *"means land or an existing building used for cultural activity. It includes, but is not necessarily limited to, museums, cultural centres, galleries, and ancillary workshops, offices, storage, and retail activity."* This activity is permitted in the LCZ and TCZ and as it is an RDIS activity this is more restrictive and enables assessment of effects such as consideration of the amenity values of the zone.

179. 'Entertainment activity' is defined in the Proposed Plan and *"means the use of land or buildings principally for leisure and amusement activities other than sports, regardless of whether a charge is made for admission or not. It includes public performances, exhibitions, movie and live theatres, and ancillary workshops, storage, offices and retail activity."* Entertainment activities are discretionary in the MRZ, SETZ, NCZ, and LFRZ. It is permitted in the MUZ, and the TCZ. It is

[41] 'food and beverage outlet' means the use of land, buildings, vessels or other structures primarily for the sale of food or beverages prepared for immediate consumption on or off the premises to the general public. It includes restaurants, bars, taverns, cafes and takeaway bars and drive through restaurants, but excludes supermarkets.

also permitted in the LCZ, SPZ(KR) and SPZ(PBKR) subject to standards. In other zones where the activity is not provided for it is discretionary. In my view, this activity is broad and could extend beyond the tourism purpose of the zone.

180. Horticulture could result in activity that extends beyond and is inconsistent with the tourism purpose of the zone. For example, it could involve processing, packaging and selling of product. I would also recommend deletion of 'horticulture' from the definition.

181. I consider, the list of activities in the definition should where possible make use of existing definitions used in the plan, and if the rezoning request is accepted, then the definition be amended as outlined above.

3.2.1.16 Assessment against Proposed Plan objectives

182. I have assessed the proposal against the SPZ(PR) Objectives.

Table 5: Assessment against Proposed Plan Objectives - 1250 Main North Road

Objective	Relevant SPZ(PR) policies to give effect to the objective	Assessment
SPZ(PR)-O1 **Tourist destination** The establishment of a[42] regionally significant tourist destination based around an 18-hole international championship golf course, with existing large residential sites, incorporating hotel and visitor accommodation, spa/wellness and hot pool complex, golf education facility, golf country club [43]and limited small-scale commercial activity and ancillary activity.	SPZ(PR)-P1 SPZ(PR)-P2 SPZ(PR)-P3 SPZ(PR)-P4 SPZ(PR)-P5 SPZ(PR)-P6 SPZ(PR)-P7 SPZ(PR)-P8 SPZ(PR)-P9	The proposal does not give effect to SPZ(PR)-O1 as the zone is to be a tourist destination based around a golf course. The makete tourism aspect of the proposal meets the tourism purpose provided the activities on the site are tourism focused and do not extend beyond the tourism purpose of the zone. In my view, the medium density residential extends beyond the tourism purpose of the zone.
SPZ(PR)-O2 **Design components** The development of ~~spa/wellness and hot pool complex~~ a tourism resort[44] centred on a spa village within a framework of open space and recreation facilities, that reflect the local open space,	SPZ(PR)-P1 SPZ(PR)-P2 SPZ(PR)-P3 SPZ(PR)-P4 SPZ(PR)-P5 SPZ(PR)-P6 SPZ(PR)-P7 SPZ(PR)-P8 SPZ(PR)-P9	The site is setback from the spa village (about 625m) so in my view the proposal is not centred on a spa village. There would be some loss of character values, particularly on the subject site itself as a medium density built-form is anticipated rather than large

[42] Minor amendment
[43] S&E Corp [416.2]
[44] S&E Corp [416.3]

recreational, landscape, cultural[45] and visual amenity values and achieve urban design excellence consistent with the Pegasus design guidelines.		residential lots in the SPZ(PR). I consider the site itself would be a different character than the surrounding environment. In my view, from a planning perspective, the open space and parkland character would mostly be retained from the surrounding sites. The proposal is to reflect cultural values and implement measures to protect and enhance cultural values.

3.2.1.17 Rezoning request assessment summary

183. The site is separated from the existing and proposed golf and spa tourism activity of Activity Areas 1-4 which, in my view, has the potential to result in a discontinuous built-form without a clear central point for tourism activity. The requested residential would be physically separated from the nearby medium density residential. In my view, it does not achieve consolidated growth in accordance with Objective 5.2.1(1).

184. Further information is required on accessibility to and from the site and the submitter is to address access management, and the need for pedestrian/cycle connections with traffic engineering evidence as part of Hearing Stream 12A. Therefore, I am unable to form a view on the transportation matters of the proposal.

185. I agree with Ms Pearson that the site does not form part of an area with strong rural character or productivity characteristics. The open space and parkland character would mostly be retained. However, there would be some loss of these character values, particularly on the subject site as a medium density built-form is anticipated.

186. I adopt the cultural impact assessment provided. There are other amendments that apply to cultural values across the whole of the zone and, in my view, should be accepted regardless of the rezoning outcome.

187. Onsite stormwater treatment and disposal/attenuation is achievable at this site, but the developer will need to be aware of the need to avoid any increase in risk of flooding to adjacent/downstream properties. Regarding wastewater servicing, the site may need to run its own rising main, and the cost of wastewater servicing for the site is likely to be high. The development can be serviced by the existing water supply.

188. There are no significant natural hazards that cannot be addressed at the time of detailed engineering design. It is recommended the developer be required to achieve low-moderate risk of liquefaction induced damage to land, services and other Council infrastructure.

[45] Dexin [377.1, 377.2, 377.3, 377.15]

189. Adverse noise reverse sensitivity effects could arise. However, I agree with Ms Pearson that there are benefits to having people living close to main transport routes.

190. I have made some comments and recommendations on the provisions sought if the proposal was to be accepted.

191. Overall, based on the information provided, in my view, the proposed development does not contribute to the development of a well-functioning urban environment as the proposal needs to address access to and from the site, and pedestrian connections. In my view, it does not achieve consolidated growth, and integrate with the surrounding environment. Therefore, I consider it is not appropriate to include the site in the SPZ(PR). For these reasons, I am of the view that the proposal does not give effect to the NPS-UD, CRPS and the objectives of the SPZ(PR) Chapter.

3.2.2 Summary of recommendations

192. I recommend, for the reasons given in the assessment, that the Hearings Panel amend SPZ(PR)-O2, and SPZ(PR)-P1 and the Pegasus Design Guidelines to provide for cultural values as set out in **Appendix A**. A s32AA assessment has been undertaken and included as **Appendix C**.

193. I recommend that the submissions from DEXIN that seek amendments to provisions where these provide for cultural values [377.1], [377.2], [377.3], [377.15], be **accepted in part**.

194. I recommend that the submissions from DEXIN that seek rezoning of 1250 Main North Road [377.4], [377.5], [377.6], [377.7], [377.8], [377.9], [377.10], [377.11], [377.12], [377.13], [377.14], [377.16], [377.17], [377.18], be **rejected**.

195. My recommendations in relation to further submissions reflect the recommendations on the relevant primary submission.

3.3 1188 Main North Road/20 Te Haunui Lane

3.3.1 Matters raised by submitters

196. Howard Zone [191.1, 191.2] seeks rezoning of 3.81ha of 1188 Main North Road/20 Te Haunui Lane, Woodend (refer to map in Appendix 2 of submission) from RLZ to SPZ(PR), with the balance of the property remaining RLZ. The submitter also seeks for the ODP to be amended to include the area as *Activity Area 7: Residential* on Appendix **SPZ(PR) – APP1 - ODP**.

197. Ravenswood Developments Ltd [FS79] seeks the rezoning is approved as it agrees with the reasons set out in the submission and notes there is a high demand for residentially zoned land at Woodend.

198. S&E Corp [FS100] and DEXIN [FS101] state that they would not oppose the rezoning of additional land but note that if approved there would be consequential amendments to the notified provisions and the ODP. They seek scope to be included in any future discussions regarding changes to provisions or the ODP, to ensure there are no unintended consequences.

3.3.2 Assessment

3.3.2.1 The site and proposal

199. The submitter seeks to rezone 3.81ha of 16.061ha of land which adjoins SPZ(PR) to the southwest to provide for 12 residential lots a balance area and esplanade reserve. The indicative subdivision layout is shown in Figure 15 below.

Figure 15: Indicative Subdivision Layout at 20 Te Haunui Lane, Pegasus. Source: Woods, Memorandum in support of submission for rezoning (Submission #191), dated 7 March 2023.

200. The property to the south (138 Main North Road) is 10ha in area, is zoned RLZ and has a resource consent for and operates as a vet clinic and cattery that is located on the part of the site immediately adjoining the Main North Road. The land to the north and east of the site is zoned SPZ(PR) as Activity Area 6: Golf Course and Activity Area 7: Residential. I note that rezoning is only sought for part of the site with the remainder to remain as RLZ and is subject to the NZTA-3 designation.

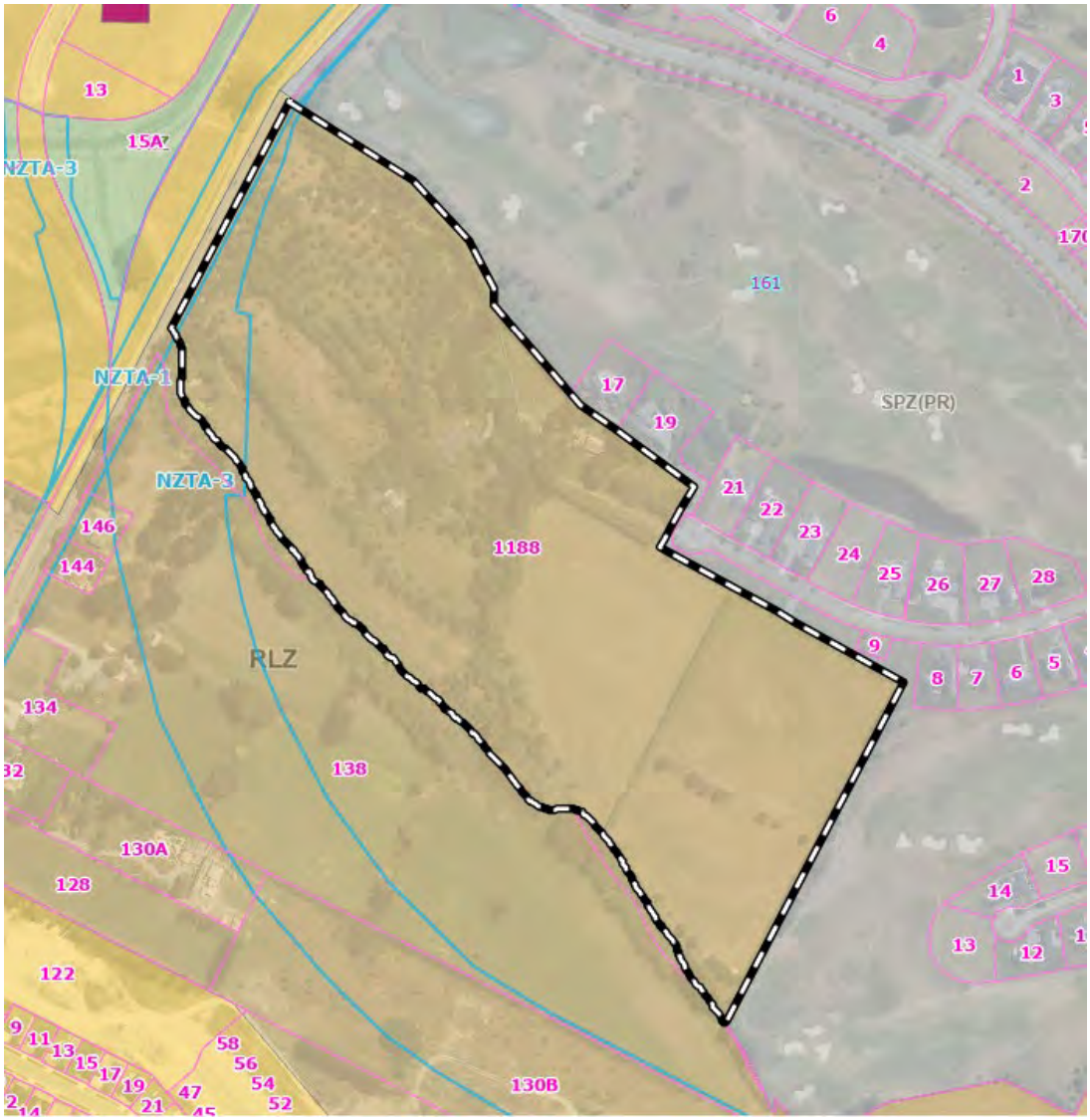


Figure 16: 1188 Main North Road and immediate surrounds.

201. The submitter has provided a memorandum, dated 7 March 2024, which was accepted as late evidence (Minute 21) and has informed this s42A report. In included the following matters:

- Infrastructure, servicing and flooding;
- Geotechnical;
- Land use capability;
- Rural character;
- Tangata Whenua values;
- Reverse sensitivity; and
- Planning and policy context.

202. A Servicing Report, Geotechnical Appraisal Report, and an Agricultural Land Use Assessment have also been provided.

203. The further information provided seeks consequential amendments to the provisions including:

- Amend Table SUB-1 to provide for a minimum allotment area of 1500m^2 on the part of LOT 2 DP 80926 identified as SPZ(PR) and *Activity Area 7*;
- Amend SPZ(PR)-BFS6 (Buildings and structure setbacks) to specify the following setbacks on the part of LOT 2 DP 80926 identified as SPZ(PR) and *Activity Area 7*:
    i. Any building or structure shall be no less than 10m from any road boundary
    ii. Any building or structure shall be no less than 4m from any internal boundary
- Consequential changes to the Part 3 SPZ(PR) policy framework to remove wording relating to "existing residential" to reflect that the submission will entail future proposed development, as follows: "~~existing~~ residential".

3.3.2.2 Type of development

204. Howard Stone seeks the site to be included as part of *Activity Area 7: Residential Lots* which has an average lot size of 2000m^2. However, Howard Stone seeks that a minimum lot size of 1500m^2 apply to the site.

205. The CRPS defines 'Rural residential activities' as:

"residential units outside the identified Greenfield Priority Areas and Future Development Areas at an average density of between 1 and 2 households per hectare".

206. The CRPS defines 'Rural residential' as:

"zoned residential development outside or on the fringes of urban areas which for primarily low density residential activities, ancillary activities and associated infrastructure".

207. However, the density of 1,500m^2 sought in the submission is higher than a rural residential lot size intended by the CRPS so, in my view, is not rural residential.

208. The CRPS definition of 'Urban activities' in Greater Christchurch includes: *"residential units (except rural residential activities) at "a density of more than one household unit per 4 ha of site area"*.[46] The CRPS definition of 'Rural activities' in Greater Christchurch includes *"Residential activities on lots of 4ha or more."* In my opinion, these definitions confirm that a residential density of 4ha or more is 'rural', and residential density less than 4ha is 'urban'. Accordingly, the density of 1,500m^2 sought in the submission is 'urban'.

209. The NPS-HPL includes, at clause 1.3 *Interpretation*, the following zones within the definition of 'urban' that are relevant to this submission:

(a) low density residential and large lot residential; and

(e) any special purpose zone.

[46] CRPS, page 252

210. The Greater Christchurch Spatial Plan 2024 has included existing Large Lot Residential Zones (which in the Proposed Waimakariri District Plan has a minimum lot size of 2500m^2) in Greater Christchurch as 'urban areas'. The density sought in the submission is greater than a Large Lot Residential Zone.

211. Based on the analysis of relevant definitions above, in my opinion the type of development sought by the submitter is urban and an urban activity. Urban activities are to only occur within existing urban areas or identified greenfield priority areas as shown on Map A of the CRPS, unless they are otherwise expressly provided for in the CRPS (Policy 6.3.1(4))[47]. As noted in section 3.1.3 above, the NPS-UD Policy 8 provides a pathway to consider urban development unanticipated by RMA planning documents if it contributes to well-functioning urban environments and adds significantly to development capacity.

3.3.2.3 Housing choice and development capacity

212. A well-functioning urban environment is to *"have or enable a variety of homes that:*

(i) meet the needs, in terms of type, price, and location, of different households"" (NPS-UD, Policy 1(a)(i)).

213. The CRPS Objective 5.2.1(2)(b) requires development to be located and designed so that it functions in a way that provides sufficient housing choice to meet the region's needs.

214. The submitter considers the proposal *"provides housing choice to meet the region's housing needs"*[48]. The submitter states that by *"enabling additional housing supply, the rezoning will contribute to improving housing affordability and a competitive residential market* [49] and *"in a location accessible to existing amenities in Pegasus, Woodend and Ravenswood, including a supermarket and shopping centre, schools, community facilities and parks/open spaces"*.[50]

215. The Waimakariri Residential Capacity and Demand Model concluded there could be a shortage of residential supply in Woodend-Pegasus. However, the model concluded that this need can be provided in other areas as sufficient development capacity has been provided across the District[51] , and is anticipated to be provided for through the residential rezoning requests. In my view, capacity is best located in the Residential Zones which are intended for residential activities.

216. There is a long-term projected shortage of 3050 units in Woodend-Pegasus which is expected to be able to be catered for in other areas of the District.

[47] "ensure new urban activities only occur within existing urban areas or identified greenfield priority areas as shown on Map A, unless they are otherwise expressly provided for in the CRPS;"

[48] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), page 9

[49] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), Page 8

[50] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), Page 7

[51] Waimakariri Residential Capacity and Demand Model – IPI 2023: Economic Assessment

217. In my opinion, while the rezoning provides housing choice in terms of location and type of development, the addition of 12 residential sections will have little impact on providing for housing capacity.

3.3.2.4 Land use capability

218. Development is to be located and designed so that it functions in a way that *"enables rural activities that support the rural environment including primary production"* (CRPS Objective 5.2.1(e)).

219. I visited the site on the 19th March 2024 and note the majority of the site was being used for grazing sheep. There is landscaping along the edges of the site, and a waterway bisects the south of the site.

220. Under the NPS-HPL clause 3.5(7), highly productive land is land that is zoned general rural or rural production, and LUC 1, 2, or 3 land. Although the site is classified as LUC 2, I note RLZ is not listed as highly productive land. Accordingly, no further consideration of the NPS-HPL is required. For completeness, I note the RLZ is not listed as an urban zone under the definition of 'urban' in clause 1.3 of the NPS-HPL.

221. Howard Stone has provided an agricultural land use assessment prepared by Dunham Consulting. This report reviews and considers the potential agricultural uses of the site, based on the capability of the land and technical and economic feasibility of agricultural activities.

222. The report concludes that there is no long term economically viable primary productive land use for the site. In conclusion, the evidence presented by the submitter concludes there is no economically viable productive land.

Figure 17: 20 Te Haunui Lane

3.3.2.5 Character and amenity

223. Development is to be enabled within Greater Christchurch through a land use and infrastructure framework that *"maintains the character and amenity of rural areas and*

settlements" (CRPS Objective 6.2.1(7)). SPZ(PR)-O1 supports the outcome of the establishment of a *"regionally significant tourist destination based around an 18-hole international championship golf course, with existing large residential sites".* SD-O2 is relevant as urban development and infrastructure is to recognise existing character.

224. The 16.018ha land holding to the northwest of the Subject Site is owned by the submitter and zoned RLZ under the Proposed Plan. The memorandum provided by Woods, on behalf of the submitter, considers retaining the RLZ on the remainder of the land *"reflects the intention of the Pegasus Resort ODP and pattern of development and is in keeping with the peri-rural character and amenity of this area".*[52]

225. Howard Stone considers the change in character will not be significant. While the proposed residential sites are not "existing large residential sites", I consider the development of the site would be a natural extension of the existing sites along the south side of Te Haunui Lane, as they are of a similar size.

226. In my opinion, from a planning perspective, the residential sites to the north of the site near Te Haunui Lane would retain the northern outlook to Activity Area 6 – Golf Course, and the open space parkland character. There would be a loss of rural character when looking towards the site from neighbouring sites but as large residential lots are established along most of Te Haunui Lane, I consider that this would be minimal particularly if the landscaping was to be retained along the northern boundary of the site. The site itself would change from a rural to residential character. The submitter has not provided landscaping evidence.

227. I note that the site to the south (138 Main North Road) has a resource consent for and operates as a vet clinic and cattery and the Woodend Bypass designation traverses the site. In my view, while the future Woodend Bypass may impact on character, I note there is a natural boundary provided by Wai Hora Stream and the 30m setback from the stream.

[52] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), page 6

Figure 18: Looking South from 20 Te Haunui Lane towards Wai Hora Stream and 138 Main North Road.

228. The memorandum provided on the 7 March 2024, prepared by Woods on behalf of the submitter in support of the submission for rezoning, states that the RLZ "enables *"rural-residential lots to establish resulting in a rural landscape characterised by a higher proportion of buildings, structures, paved areas and other built elements, in addition to noise, and glare from vehicle movements."*[53]

229. I note that the RLZ retains the minimum lot size of the Rural Zone in the Operative District Plan of 4ha. As stated in the Rural s32 report, rural production activities may still occur on 4ha sites but *"it forecloses the opportunities for a diverse range of rural production activities to establish"*[54]. Furthermore, the RLZ is described in the National Planning Standards to be used predominantly for residential lifestyle, while still enabling of primary production to occur[55]. I consider the site would change from a rural character to a residential. However, for the reasons stated above, I consider there to already be an urban character along Te Haunui Lane, and that the character and amenity of the area will largely be retained due to Activity Area 6 – Golf Course, provided the lots were consistent with the lot sizes of the existing large residential lots in the zone.

3.3.2.6 Cultural values

230. A well-functioning urban environment under to NPS-UD enables Māori to express their cultural traditions and norms. Planning decisions relating to urban environments are to take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

231. The site is subject to Ngā Tūranga Tūpūna (SASM013) and a Ngā Wai (SASM025). The rules in the Sites and Areas of Significance to Māori Chapter would apply to activities on the site. There are no silent file areas associated with the site under the Operative District Plan. I have contacted Mahaanui Kurataiao regarding the proposal and received a Cultural Advice Report which is attached as **Appendix F**.

232. Te Ngāi Tūāhuriri Rūnanga Kaitiaki are opposed to the rezoning due to:

- The anticipated increase in subdivision and development activities, impervious surfaces and cumulative environmental effects.
- The ongoing impact of subdivision and development in this area on waterways and groundwater.

233. Te Ngāi Tūāhuriri Rūnanga Kaitiaki deems there to be no conditions suitable to mitigate the effects on mana whenua values.

[53] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), page 6

[54] Page 30

[55] National Planning Standards, Section 8, Table 13, Page 37

3.3.2.7 Infrastructure and servicing

234. Urban developments that affect urban environments are to be integrated with infrastructure planning and funding decisions. They are to be compatible with, and result in the continued safe, efficient and effective use of regionally significant infrastructure and avoid adverse effects on regionally significant infrastructure, and where avoidance is impracticable, are to remedy or mitigate those effects (CRPS Objective 5.2.1(2). Land use and infrastructure is to be integrated and development is to not adversely affect the operation, use and development of regionally significant infrastructure (Objective 6.2.1(9), 6.2.1(10)).

235. The submitter considers the proposal *"is compatible with regionally significant infrastructure (including the Woodend SH1 bypass)"*. [56] However as the Woodend Bypass designation runs close to the site there is the potential for reverse sensitivity effects. The site is approximately 55m from the designation, at the closest point, and with a 30m setback from the Wai Hora Stream the development will be setback about 85m from the designation, and residential units set-back further than this taking into account boundary setbacks. There may be some reverse sensitivity effects to the south corner of the site. However, I note that the conditions attached to the designation address reverse sensitivity effects both during construction and operation of the road (such as Construction Noise and Vibration Management Plan: Conditions 11 – 14 and Operational Noise: Conditions 92 – 96) and consider they will also protect the amenity of the residential development of the site.

236. The submitter has stated that a *"number of stormwater management options are available to provide treatment and detention prior to discharge to existing water bodies or soakage/ground"*[57]. As there is no capacity in any Council drainage network for the additional lots, on site drainage infrastructure to provide for both treatment and mitigation of downstream effects will need to be provided.[58] The submitter considers impervious areas on the subject site can be serviced by disposal of stormwater to ground. The Infrastructure Servicing Report states there is ample space within the proposed right of way to provide stormwater solutions. It is expected that it will include dry basins to attenuate stormwater flows to below predevelopment flows.

237. The District Council's Senior Civil Engineer Mr Aramowicz has reviewed the proposal and is of the opinion that onsite stormwater treatment and disposal/attenuation is achievable. He also advises the development can be accommodated by the existing sewer and serviced by existing water supply.[59] I adopt this advice and consider servicing can be provided.

3.3.2.8 Transportation and accessibility

Accessibility

[56] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), page 9

[57] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), page 3

[58] Statement of evidence of Shane Binder (Transport), John Aramowics (Servicing, Hazards), Christopher Bacon (Servicing, Hazards) on behalf of Waimakariri District Council, Attachment B

[59] Statement of evidence of Shane Binder (Transport), John Aramowics (Servicing, Hazards), Christopher Bacon (Servicing, Hazards) on behalf of Waimakariri District Council, Attachment A, row 2, column servicing

238. Under the NPS-UD district plans are to *"enable more people to live in, and more businesses and community services to be located in, areas of an urban environment"* if it is near a centre zone or other area with many employment opportunities, is well-serviced by public transport or there is a high demand for housing or business land in the area, relative to other areas within the urban environment (NPS-UD, Objective 3).

239. A well-functioning urban environment is to *"have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport"* (NPS-UD, Policy 1(c).

240. CRPS Objective 5.2.1(1) requires development to be located and designed so that it functions in a way that *"achieves consolidated, well designed and sustainable growth in and around existing urban areas as the primary focus for achieving the region's growth".* CRPS Objective 5.2.1(2)(d) requires development is located and designed so that it *"minimises energy use and/or improves energy efficiency"*.

241. The SPZ(PR) s32 identified the notified zone as being an appropriate location for a tourism resort centred on the existing golf course. The zone is intended to include a golf course, hotel, visitor accommodation, spa/wellness and hot pool complex, golf education and country club.

242. The submitter considers the *"proposed rezoning enables development that supports consolidated, well designed and sustainable growth around the existing urban areas of Pegasus and Ravenswood, close to existing and planned amenities"*[60].

243. I agree that the site is near the residential area of Pegasus and note it is connected to Pegasus Town via Te Haunui Lane and Pegasus Boulevard. However, it is physically separated by the NOSZ. Pegasus Resort is physically separated from Ravenswood by the Main North Road. It is located close to existing lots with an average size of 2000m^2.

244. I note that the site is more than 500m from any Open Space and Recreation Zone. However, there is ample open space in the SPZ(PR) such as the golf course, the NOSZ to the east of the SPZ(PR), and in Ravenswood. However, this is dependent on accessibility which is considered below. While I note the existing development pattern, this was consented under a different planning framework and therefore I have not considered this further.

245. The submitter considers the rezoning request *"supports a safe, efficient and effective transport system"*, given its location adjacent to the Pegasus/Mapleham subdivisions, and to Ravenswood which is 1.5km away and accessible by walking and cycling[61].

[60] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), page 9

[61] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), page 9

246. I consider this to be accessible as it is close to Ravenswood. However, it is not physically accessible as this would require crossing the Main North Road. The site is a 15 minute walk from a bus stop at the corner of Pegasus Boulevard and SH1, which is served by the 95 bus route to Christchurch via Kaiapoi[62], and another bus stop is located at Pegasus Boulevard near Whakatipu Street, as shown in Figure 19 below.

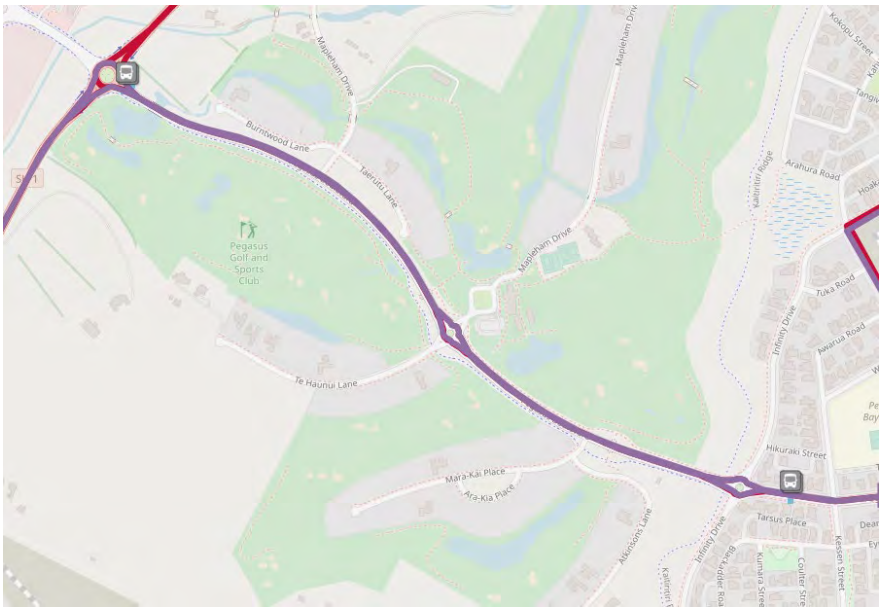


Figure 19: Location of bus stops. Source: Metro Go.

247. The memorandum prepared by Consultant Planner Sanjay Bangs and Senior Planner Joanne Sunde for Woods, on behalf of Howard Stone, notes a short vehicle trip will reduce fewer greenhouse gas emissions than trips originating from more remote locations.

248. Mr Binder has reviewed the proposal and would not consider the site to have appropriate public transport or non-motorised access to the Key Activity Centre. Mr Binder notes the nearest bus stops are 1km away and walking/cycling access to Woodend is problematic, and to the future Ravenswood KAC requires crossing what he considers the "challenging" Pegasus roundabout.

249. Based on the expert opinion of Mr Binder, the proposal does not provide for good accessibility to jobs and services by way of public or active transport, nor is it large enough to support a range of transportation modes in the future or support the reduction in greenhouse gas emissions. Therefore regarding this aspect, it would not contribute to a well-functioning urban environment.

Right of way

250. There is an existing right of way with a width of 5m, which comes off Te Haunui Lane to the north of the site. The vehicle accessway does not comply with the proposed minimum width of 7m associated with Table TRAN-7 in the Proposed Plan. The infrastructure and servicing report

[62] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), page 10

states that the legal width of the Right of Way is sufficient to allow construction of a formed right of way or road to accommodate rubbish trucks and other service vehicles.[63]

251. Mr Binder recommends the sealed access be widened to 6 metres or greater to accommodate 2-way traffic and is comfortable with the access remaining privately owned if most or all of the functions of a road are met.[64]

3.3.2.9 Natural hazards, geotechnical and climate change

252. Policy 1 sets out that well-functioning urban environments *"support reductions in greenhouse gas emissions"* and *"are resilient to the likely current and future effects of climate change"*.

253. CRPS Objective 6.2.1(8) sets out that land use is to protect people from unacceptable risk from natural hazards and the effects of sea-level rise.

254. The submitter considers the *"proposed residential activity is resilient to the effects of climate change, particularly as it is not proximate to the coast, and is not subject to any significant flooding risks"*.[65]

255. The site contains a small amount of Non-urban Flood Assessment Overlay and the Natural Hazards Chapter rules will apply to that area of the site.

256. The submitter has provided the following information about flooding:

> *"…The flooding constraint on the site is considered to be small in extent, and can be addressed through the design of earthworks, dwellings and access to avoid, remedy and mitigate the risks of flood hazards to future occupants and the surrounding land…"*[66]

257. LiDAR and stormwater modelling show that there are a couple of overland flow paths crossing the northern half of the site. Liquefaction damage is possible.

258. The submitter states *"softer clay soils are observed on the site, correlating to the overland flow area. However, the presence of potentially compressible soil does not preclude the use of the site as residential land from an engineering perspective, and further investigations at the resource consent stage are recommended."* [67]

259. The technical information was reviewed by Mr Aramowics who considers there are no significant natural hazards that cannot be addressed at the time of detailed engineering design. He notes the presence of two overland flow channels that will need protection, and recommends

[63] Page 1
[64] Statement of evidence of Shane Binder (Transport), John Aramowics (Servicing, Hazards), Christopher Bacon (Servicing, Hazards) on behalf of Waimakariri District Council, Attachment A, row 2, column transport
[65] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), page 8
[66] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), page 3
[67] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), page 4

the developer be required to achieve low-moderate risk of liquefaction induced damage. [68] I accept this advice.

3.3.2.10 ODP

260. The CRPS Policy 6.3.3 requires development within Greenfield priority areas, Future Development Areas and rural residential development to be in accordance with an ODP and sets out the requirements for ODPs. While the site is not a Greenfield Priority Area or Future Development Area, this provision is useful to demonstrate how the proposal would meet these.

261. The submitter has not provided an ODP but seeks the ODP be amended to include the area indicated to become "Activity Area 7: Residential".

262. As they have sought to be included in the ODP, detail is required for how the ODP would be drafted to address relevant matters. I note however there is an Indicative Scheme Plan Layout on per page 2 of the memorandum dated 7 March 2024.

263. For example, with regard to integration with the land to the west, I note that while there is no submission to rezone this land; if the Howard Stone site was rezoned there has been no consideration of future options and integration.

264. The Wai Hora Stream is located to the south of the site. Howard Stone proposes a 30m setback from Wai Hora Stream.[69] I recommend this buffer is shown on the ODP if the rezoning were to be accepted.

Figure 20: Wai Hora Stream

[68] Statement of evidence of Shane Binder (Transport), John Aramowics (Servicing, Hazards), Christopher Bacon (Servicing, Hazards) on behalf of Waimakariri District Council, Attachment A, row 2, column hazards

[69] 20 Te Haunui Lane, Pegasus – Memorandum in support of submission for rezoning (Submission #191), page 5-6

3.3.2.11 Amendments to provisions

265. In the evidence, Howard Stone seeks a minimum lot size of 1500m^2. This would align with the size of some of the lots to the north east of the site. However, the indicative subdivision layout shows 2000m^2, and the average of the existing sites in the zone is 2000m^2.

266. I agree that a consequential amendment would need to be made, if the rezoning request was approved, to allow for the subdivision to occur as the *"All other areas"* minimum lot size of 4ha would otherwise apply. While the submission did not seek an amendment to SUB-S1, I consider this amendment would be consequential to the relief sought.

267. Howard Stone seeks the following setbacks:

- Any building or structure shall be no less than 10m from any road boundary
- Any building or structure shall be no less than 4m from any internal boundary

268. The setback of 10m from the road boundary is consistent with the setbacks for Activity Area 7. In my view, to be consistent and integrate with the existing residential in the zone and to maintain the character and amenity, I recommend the internal boundary setback also be 10m (rather than the 4m sought) if the rezoning was to be accepted.

269. I consider a 10m setback would better give effect to the objectives and policies of the SPZ(PR). In particular, SPZ(PR)-O2, to reflect open space, recreational, landscape and visual amenity values; SPZ(PR)-P3 to provide for landscape character values; SPZ(PR)-P5 - urban design elements; SPZ(PR)-P6 - Open areas; and SPZ(PR)-P9 ensuring amenity values with no intensification beyond what is provided in for the Built Form Standards.

270. I consider the consequential amendment to remove wording relating to "existing residential" may create a precedent and would not retain the tourism purpose of the zone.

3.3.2.12 Assessment against Proposed Plan objectives

271. I have assessed the proposal against the SPZ(PR) Objectives in Table 5 below.

Table 6: Assessment against Proposed Plan Objectives – 20 Te Haunui Lane

Objective	Relevant SPZ(PR) policies to give effect to the objective	Assessment
SPZ(PR)-O1 **Tourist destination** The establishment of a[70] regionally significant tourist destination based around an 18-hole international championship golf course, with existing large residential sites, incorporating	SPZ(PR)-P1 SPZ(PR)-P2 SPZ(PR)-P3 SPZ(PR)-P4 SPZ(PR)-P5 SPZ(PR)-P6 SPZ(PR)-P7 SPZ(PR)-P8 SPZ(PR)-P9	I acknowledge that the golf course is supported by a range of activities, and the proposal maintains views over the golf course, and follows the existing pattern of residential development.

[70] Minor amendment

hotel and visitor accommodation, spa/wellness and hot pool complex, golf education facility, golf country club [71]and limited small-scale commercial activity and ancillary activity.		
SPZ(PR)-O2 **Design components** The development of ~~spa/wellness and hot pool complex~~ a tourism resort[72] centred on a spa village within a framework of open space and recreation facilities, that reflect the local open space, recreational, landscape, cultural[73] and visual amenity values and achieve urban design excellence consistent with the Pegasus design guidelines.	SPZ(PR)-P1 SPZ(PR)-P2 SPZ(PR)-P3 SPZ(PR)-P4 SPZ(PR)-P5 SPZ(PR)-P6 SPZ(PR)-P7 SPZ(PR)-P8 SPZ(PR)-P9	I consider there to already be an urban character along Te Haunui Lane, and that the character and amenity of the area will largely be retained due to the village fringe, provided the lots were consistent with the lot sizes of the existing large residential lots in the zone. Te Ngāi Tūāhuriri Rūnanga Kaitiaki are opposed to the rezoning due to the anticipated increase in subdivision and development activities, impervious surfaces and cumulative environmental effects, and the ongoing impact of subdivision and development in this area on waterways and groundwater.

3.3.2.13 Rezoning request assessment summary

272. In my view, development of the site would be a natural extension of the existing sites if they are of a similar size.

273. Te Ngāi Tūāhuriri Rūnanga Kaitiaki are opposed to the rezoning due to the anticipated increase in subdivision and development activities, impervious surfaces and cumulative environmental effects, and the ongoing impact of subdivision and development in this area on waterways and groundwater.

274. Stormwater treatment and disposal/attenuation is achievable at the site, and rezoning can be accommodated by the existing sewer system and can be serviced by the existing water supply.

275. The site does not have appropriate public transport or non-motorised access to Ravenswood. Therefore, in my view, the proposal does not provide for good accessibility to jobs and services by way of public or active transport, and it does not support reductions in greenhouse gas emissions.

[71] S&E Corp [416.2]
[72] S&E Corp [416.3]
[73] Dexin [377.1, 377.2, 377.3, 377.15]

276. It is recommended that the sealed access be widened to accommodate 2-way traffic 6m or more, and there could be a benefit to a walking link to the Wai Ora Stream.

277. There are no significant natural hazards that cannot be addressed at the time of detailed engineering design. There are two overland flow paths that will need protection and it is recommended that the developer be required to achieve a low-moderate risk of liquefaction induced damage.

278. Detail is required for how these residential lots will be shown on the ODP and if the site is to be shown as per the layout provided in the Indicative Scheme Plan Layout as per page 2 of the memorandum dated 7 March. I recommend the 30m setback from Wai Hora Stream is shown on the ODP, and any landscaping, to maintain the character and amenity of the zone.

279. In my view, to be consistent and integrate with the existing residential in the zone and to maintain the character and amenity, if accepted, I recommend the internal boundary setback also be 10m.

280. Overall, based on the information provided, in my view, the proposal does not achieve a well-functioning urban environment as it does not provide for good accessibility to jobs and services by way of public or active transport, and therefore does not support reductions in greenhouse gas emissions, and potentially impacts on cultural values. Therefore, it is not appropriate to extend the SPZ(PR) zone to include the site. For these reasons, I am of the view that the proposal does not give effect to the NPS-UD, CRPS and the objectives of the SPZ(PR) Chapter.

3.3.2.14 Summary of recommendations

281. I recommend for the reasons given in the assessment, that the submissions from Howard Stone [191.1, 191.2], be **rejected**.

282. My recommendations in relation to further submissions reflect the recommendations on the relevant primary submission.

3.4 Minor Errors

283. I recommend "a" be inserted before "regionally significant tourist destination" in SPZ(PR)-O1.

284. I also recommend that Table SUB-1: Minimum allotment sizes and dimensions be formatted with spacing at the top of column 2-4 (row Special Purpose Zone (Pegasus Resort) to provide clarity for the lot sizes that apply to the activity areas as follows:

Special Purpose Zone (Pegasus Resort) • Areas 1, 2 and 4 • All other areas	No minimum 4ha	n/a n/a	n/a n/a

285. I have shown these as corrections in **Appendix A**.

4 Conclusions

286. Submissions have been received in support of and seeking amendments to the Proposed Plan.

287. Having considered all the submissions and reviewed all relevant statutory and non-statutory documents, I recommend that the Pegasus Resort Chapter of the Proposed Plan be amended as set out in **Appendix A** of this report.

288. For the reasons set out throughout this report, I consider that the proposed objectives and provisions, with the recommended amendments, will be the most appropriate means to:

- achieve the purpose of the RMA where it is necessary to revert to Part 2 and otherwise give effect to higher order planning documents, in respect to the proposed objectives, and
- achieve the relevant objectives of the Proposed Plan, in respect to the proposed provisions.

Recommendations:

I recommend that:

289. The Hearing Commissioners accept, accept in part, or reject submissions (and associated further submissions) as outlined in **Appendix B** of this report; and

290. The Proposed Plan is amended in accordance with the changes recommended in **Appendix A** of this report.

Signed:

Name and Title		Signature
Report Author	Jessica Manhire Policy Planner, Waimakariri District Council	

Appendix A. Recommended Amendments to the Pegasus Resort Chapter and associated provisions

Where I recommend changes in response to submissions, these are shown as follows:

- Pegasus Resort Chapter S42A recommendations are shown in red text (with underline and ~~strike out~~ as appropriate); and
- Recommendations from the Pegasus Resort Chapter reply report in response to evidence are shown in blue text (with underline and ~~strike out~~ as appropriate); and
- Recommendation from this Rezoning Requests s42A report are shown in pink text (with underline and ~~strike out~~ as appropriate);

Special Purpose Zone - Pegasus Resort

Introduction

The purpose of the Special Purpose Zone (Pegasus Resort) is to provide for a high-quality visitor resort centred around the existing 18-hole international championship golf course. The zone provides for hotel and visitor accommodation, existing large residential lots, a spa and hot pool complex, golf education and golf [74]country club facilities and a limited mix of commercial and associated ancillary activities, that support tourism activities associated with the Pegasus Resort.

The zone is divided into seven distinct activity areas (references correspond to SPZ(PR)-APP1 and are referred to in the Activity Area Rules Tables as follows):

- Activity Area 1: Spa.
- Activity Area 2: Spa Village.
- Activity Area 3: Golf Square.
- Activity Area 4: Golf Village.
- Activity Area 5: Village Fringe.
- Activity Area 6: Golf Course.
- Activity Area 7: Residential.

The key differences between these activity areas are the types of development enabled (as guided by SPZ(PR)-APP1) and the extent to which activities such as commercial golf resort activity and visitor accommodation can occur. This recognises that some activity areas predominantly perform functions relating to the existing golf course, or

[74] Consequential amendment

existing residential areas, while others will enable other major tourism related activities, and to allow each of these areas to develop a distinct character guided by the Pegasus Resort Urban Design Guidelines (design guidelines) (Appendix 2).

Activity Area 1 — Spa provides for tourism activities, centred around the development of a Spa/Wellness and Hot Pool Complex, aimed at being a regionally significant tourism destination. This complex necessitates and provides for other activities that support the visitor experience, for example, a landmark hotel defining the main entrance to the golf course on the corner of Pegasus Boulevard and Mapleham Drive and an at-grade car park that services the Spa/Wellness and Hot Pool Complex and Hotel.

Activity Area 2 — Spa Village provides for a range of supporting commercial and visitor accommodation activities that will allow for visitors to cater for their stay. It will provide for visitor accommodation opportunities as an alternative to a hotel experience as well as commercial golf resort activities set out in accordance with the ODP to create a 'village' look and feel. Activity Area 2 will not provide for residential activities or other commercial activities typically associated with a neighbourhood or local centre — any commercial golf resort activity will need to demonstrate a link to supporting the key tourism activities provided for in the remainder of the zone.

Activity Area 3 — Golf Square contains the existing golf club facilities. The architectural design of these buildings is intended to set the tone for the built form of the rest of the zone, as set out in the Pegasus Design Guidelines. Development in this activity area is expected to be limited to a future country club and associated activities directly related to the operation of the golf course, as opposed to visitor accommodation or commercial golf resort activities found elsewhere in the zone.

Activity Area 4 — Golf Village is a development area for activities that support the primary golf course activity. Activities enabled by the ODP include an already consented Hotel and a Golf Education Facility, both of which are likely to be used by tourists visiting the zone for either golf instruction or playing the course for leisure or competition.

Activity Area 5 — Village Fringe is an active part of the existing golf course, however it has been identified as a separate activity area as it needs to provide for the relocation of two golf holes in order to enable the development of Activity Areas 1 and 2. It also serves as a buffer area between visitor accommodation and commercial golf resort activities found in the Spa Village and the residential sites located to the north.

Activity Area 6 — Golf Course contains the balance of the existing golf course not covered by the Village Fringe Activity Area and enables the ongoing operation and development of this course as a major sports facility.

Activity Area 7 – Residential contains eight enclaves of residential sites with an average lot size of approximately 2000m². These residential sites were created at the same time as the golf course development and have been designed to have aspects overlooking the golf course open space

areas. The intention is for these lots to maintain their semi-rural appearance and outlook over the golf course with no further intensification anticipated. Activity Area 7 also include two additional residential sites that were created as balance lots and are now being developed for residential activity.

The provisions in this chapter are consistent with the matters in Part 2 - District Wide Matters - Strategic Directions and give effect to matters in Part 2 - District Wide Matters - Urban Form and Development.

As well as the provisions in this chapter, district wide chapter provisions will also apply where relevant.

Objectives	
SPZ(PR)-O1	**Tourist destination** The establishment of a[75] regionally significant tourist destination based around an 18-hole international championship golf course, with existing large residential sites, incorporating hotel and visitor accommodation, spa/wellness and hot pool complex, golf education facility, golf country club [76]and limited small-scale commercial activity and ancillary activity.
SPZ(PR)-O2	**Design components** The development of ~~spa/wellness and hot pool complex~~ a tourism resort[77] centred on a spa village within a framework of open space and recreation facilities, that reflect the local open space, recreational, landscape, cultural[78] and visual amenity values and achieve urban design excellence consistent with the Pegasus design guidelines.
Policies	
SPZ(PR)-P1	**Outline development plan** Use and development of land shall: 3. be in accordance with the development requirements and fixed and flexible elements in SPZ(PR)-APP1, or otherwise achieve similar or better outcomes, except in relation to any interim use and development addressed by (3) below; 4. ensure that development: a. results in a vibrant, mixed-use area that achieves a complementary mix of hotel and visitor accommodation, spa/wellness and hot pool complex, golf education facility, golf country club,[79] small-scale commercial activities and ancillary activities;

[75] Minor amendment
[76] S&E Corp [416.2]
[77] S&E Corp [416.3]
[78] Dexin [377.1, 377.2, 377.3, 377.15]
[79] S&E Corp [416.4]

	b. contributes to a strong sense of place, and a coherent, functional and safe neighbourhood; c. retains and supports the relationship to, and where possible enhances recreational features; d. is in accordance with the Pegasus design guidelines; e. achieves a high level of landscape, visual and amenity values; and f. encourages mixed use developments that are in accordance with SPZ(PR)-APP1 as a means of achieving coordinated, sustainable and efficient development outcomes; and g. provides an authentic reflection of the cultural values of the area in collaboration with mana whenua; and[80] 5. where the land is in interim use, the interim use shall not compromise the timely implementation of, or outcomes sought by, SPZ(PR)-APP1.
SPZ(PR)-P2	**Infrastructure services** Ensure the efficient and effective provision of infrastructure that avoid, remedy or mitigate any adverse effects on water quality and landscape, visual and amenity values and are consistent with the design approach taken for Pegasus township.
SPZ(PR)-P3	**Landscape and character** Provide for the landscape character values of the golf course, ~~country club facilities~~[81] and the background mountain range, particularly as viewed from public places, through master-planning, landscape design and massing of buildings.
SPZ(PR)-P4	**Provision of commercial activities** Ensure that the amenity values for visitors to the resort and the residents living in Activity Area 7 is maintained or enhanced through: 1. only providing for commercial activities that meet the definition of commercial golf resort activity; 2. having individual and maximum caps on the floor area of commercial golf resort activity; and 3. managing the compatibility of activities within and between developments, especially for activities adjacent residential areas, through: a. controlling site layout, landscaping and design measures, including outside areas and storage; and b. controls on emissions including noise, light and glare.
SPZ(PR)-P5	**Urban design elements** Encourage high quality urban design by: 1. requiring all development to be in accordance with SPZ(PR)-APP1, which establishes an integrated and coordinated layout of open space; buffers and building

[80] Dexin [377.1, 377.2, 377.3, 377.15]
[81] S&E Corp [416.5]

	setbacks; building height modulation and limits; roading purpose; built form; and streetscape design; 2. requiring all subdivision and development to be in accordance with the Pegasus design guidelines; 3. encouraging design responses that respond to the cultural values and visual character of the area; 4. encouraging development to be consistent with the existing distinctive architectural style of the golf resort buildings to ensure the character is retained; 5. efficient design of vehicle access ways and car parking, which is adequately screened from Pegasus Boulevard with appropriately designed landscaping; and 6. provision of secure, visible and convenient cycle parking.
SPZ(PR)-P6	**Open areas** Recognise the important contribution that the open areas provided by the Village Fringe Activity Area and the Golf Course Activity Area that adjoin the visitor accommodation and village areas make to the identity, character, amenity values, and outlook of the zone for residents and visitors.
SPZ(PR)-P7	**Golf activity** Enable golf course activities and ancillary facilities that: 1. support the golf course within the Golf course activity area; and 2. provide for development of the resort while ensuring that Pegasus Golf Course remains an 18 hole championship golf course.
SPZ(PR)-P8	**Village fringe** Provide for the relocation of two golf holes within the village fringe.
SPZ(PR)-P9	**Residential development** Provide for residential development located within Residential activity area, while ensuring amenity values resulting from views over the golf course are maintained with no intensification of residential activity beyond what is provided for in the Activity Rules and Built Form Standards.

Activity Rules

SPZ(PR)-R1 Construction or alteration of or addition to any building or other structure	
Activity status: PER Where: 1. the activity complies with all built form standards (as applicable).	**Activity status when compliance not achieved: as set out in the relevant built form standards**
SPZ(PR)-R2 Residential activity	
Activity status: PER Where:	**Activity status when compliance is not achieved: DIS**

1. the activity occurs within Activity Area 7 excluding Lot 212 DP 403716 and Lot 230 DP 417391).	
Activity Status: CON Where: 2. the activity occurs within Lot 212 DP 403716 and Lot 230 DP 417391; and 3. only one residential unit per site. **Matters of control are restricted to:** SPZ-PR-MCD2 - Residential design controls SPZ-PR-MCD8 - Flooding hazard	**Activity status when compliance is not achieved: DIS**
Activity status: NC Where: 4. the activity occurs within Activity Areas 1 to 6.	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R3 Residential unit	
Activity status: PER Where: 1. the activity occurs within Activity Area 7 including Lot 212 DP 403716 and Lot 230 DP 417391).	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R4 Minor residential unit	
Activity status: PER Where: 1. the activity occurs within Activity Area 7 including Lot 212 DP 403716 and Lot 230 DP 417391); 2. the maximum GFA of the minor residential unit shall be 80m^2 (excluding any area required for a single car vehicle garage or carport); 3. there shall be only one minor residential unit per site; and 4. parking and access shall be from the same vehicle crossing as the principal residential unit on the site.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R5 Accessory building or structure	
Activity status: PER	**Activity status when compliance is not achieved: N/A**

SPZ(PR)-R6 Major sports facility	
Activity status: PER Where: 1. the activity occurs within Activity Areas 3, 5 and 6; 2. the outdoor lighting of the major sports facility must not operate within the hours of 10:00pm to 7:00am; 3. any tennis court surfaces are either dark green or grey in colour; 4. any tennis court fencing is chain mesh or similar, and grey or black in colour; 5. the GFA of any single building is less than 2,000m^2; and 6. landscape components are designed in accordance with Pegasus design guidelines SPZ(PR)-APP2.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R7 Recreation activities	
Activity status: PER Where: 1. the activity occurs within Activity Areas 3, 5 and 6.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R8 Helipad	
Activity status: PER Where: 1. the helipad is relocated within 10m of the location shown on SPZ(PR)-APP1; and 2. the helipad is not constructed over existing underground infrastructure.	**Activity status when compliance is not achieved: NC**
Advisory Note • The location and design of any helipad must comply with Civil Aviation Rules, the Civil Aviation Act 1990 and other relevant legislation.	
SPZ(PR)-R9 New stormwater or recreation water bodies	
Activity status: CON Where: 1. the activity occurs within Activity Areas 5 and 6; 2. resizing, resitting and the provision of additional proposed stormwater ponds are consistent with SPZ(PR)-	**Activity status when compliance is not achieved: NC**

APP1 and engineering requirements; and 3. the stormwater pond is lined with a liner of sufficient impermeability so that seepage from the pond does not increase the likelihood of liquefaction. **Matters of control and discretion are restricted to:** SPZ-PR-MCD1 - Stormwater or recreational water bodies **Notification** An application for a controlled activity under this rule is precluded from being publicly or limited notified.	
SPZ(PR)-R10 Visitor accommodation *This rule does not apply to any hotel provided for under SPZ(PR)-R11.*	
Activity status: RDIS Where: 1. the activity occurs within Activity Area 2; 2. the maximum number of visitor accommodation units within Activity Areas 2 shall be 320; and 3. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD3 - Transportation SPZ-PR-MCD4 - Amenity values SPZ-PR-MCD7 - Visitor accommodation SPZ-PR-MCD8 - Flooding hazard **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R11 Hotel	
Activity status: RDIS Where:	**Activity status when compliance is not achieved: NC**

1. the activity occurs within Activity Areas 1 and 4; 2. the maximum number of hotel accommodation units within Activity Areas 1 and 4 shall be 180; and 3. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD3 - Transportation SPZ-PR-MCD4 - Amenity values SPZ-PR-MCD8 - Flooding hazard **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	
SPZ(PR)-R12 Spa/wellness and hot pool complex	
Activity status: RDIS Where: 1. the activity occurs within Activity Area 1; and 2. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD3 - Transportation SPZ-PR-MCD4 - Amenity values SPZ-PR-MCD8 - Flooding hazard **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R13 Commercial golf resort activity	
Activity status: RDIS Where:	**Activity status when compliance is not achieved: NC**

1. the activity occurs within Activity Areas 1 to 4; 2. there is a maximum of 2,500m² GFA within Activity Areas 1, 2, 3 and 4 combined, as shown on SPZ(PR)-APP1; 3. commercial golf resort activity in Activity Areas 1 to 4 shall be a maximum of 200m^2 GFA per tenancy: and 4. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD3 - Transportation SPZ-PR-MCD4 - Amenity values SPZ-PR-MCD8 - Flooding hazard	
SPZ(PR)-R14 Golf country club	
Activity status: RDIS Where: 1. the activity occurs within Activity Area 3; and 2. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2. **Matters of control and discretion are restricted to:** SPZ-PR-MCD5 - Golf facility considerations **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-R15 Golf education facility	
Activity status: RDIS Where: 1. the activity occurs within Activity Area 4; and 2. design of development shall be in accordance with the Pegasus design guidelines SPZ(PR)-APP2.	**Activity status when compliance is not achieved: NC**

Matters of control and discretion are restricted to: SPZ-PR-MCD5 - Golf facility considerations **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.	
SPZ(PR)-R16 Primary production	
This rule does not apply to plantation forestry and woodlots provided for under SPZ(PR)-R20; or mining and quarrying activities provided for under SPZ(PR)-R23.	
Activity status: DIS	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R17 Any other activity not provided for in this zone as a permitted, controlled, restricted discretionary, discretionary, non-complying, or prohibited activity, except where expressly specified by a district wide provision	
Activity status: DIS	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R18 Large format retail	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R19 Supermarket	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R20 Plantation forestry and woodlots	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R21 Intensive indoor primary production	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R22 Commercial services	
This rule does not apply to any hairdressing, beauty salons, barbers, and massage therapists except where provided for under SPZ(PR)-R11 to SPZ(PR)-R14.	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R23 Mining and quarrying activities	
Activity status: NC	**Activity status when compliance is not achieved: N/A**

SPZ(PR)-R24 Office	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R25 Funeral related services and facility	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R26 Waste management facility	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R27 Trade supplier	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R28 Service station	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R29 Motorised sports facility	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R30 Industrial activity	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R31 Boarding kennels	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R32 Cattery	
Activity status: NC	**Activity status when compliance is not achieved: N/A**
SPZ(PR)-R33 Composting facility	
Activity status: NC	**Activity status when compliance is not achieved: N/A**

Built Form Standards

SPZ(PR)-BFS1 Visitor accommodation unit standards	
1. The minimum NFA (excluding garages, balconies, and any communal lobbies stairwells and plant rooms) per visitor accommodation unit shall be: a. Studio 25m^2;	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:**

b. One bedroom 35m^2; c. Two bedroom 50m^2; and d. Three or more bedrooms 80m^2; 2. Each visitor accommodation unit shall be provided with a private outdoor living space with a minimum area of 6m^2 and a minimum dimension of 1.5m; 3. Where a garage is not provided with the unit, each visitor accommodation unit shall have an internal storage space that is a minimum of 4m^3 and a minimum dimension of 1m; and 4. External lighting shall be limited to down lighting only, at a maximum of 1.5m above the finished floor level of the building, with the light source shielded from horizontal view.	SPZ-PR-MCD7 - Visitor accommodation units **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR)-BFS2 Visitor accommodation waste management	
1. All visitor accommodation shall provide: a. a waste management area for the storage of rubbish and recycling of 5m^2 with a minimum dimension of 1.5m; and b. waste management areas shall be screened or located behind buildings when viewed from any road or public open space.	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:** SPZ-PR-MCD7 - Visitor accommodation units **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
SPZ(PR)-BFS3 Building height	
1. The maximum height of buildings above ground level shall be: a. Activity Area 1 - 16m at 3 storeys; b. Activity Area 2 - 12m at 3 storeys; c. Activity Area 3 - 9m at 2 storeys; d. Activity Area 4 - 14m at 3 storeys;	**Activity status when compliance is not achieved: NC**

e. Activity Area 5 - 8m at 2 storeys; f. Activity Area 6 - 6m at 1 story; and g. Activity Area 7 - 10m at 2 storeys (with the exception of Lot 212 DP 403716 and Lot 230 DP417391, which shall comprise a single storey residential unit no higher than 7m). 2. The minimum height of buildings shall be: a. Activity Area 2 - 6m at 1 storey.	
Calculation method for SPZ(PR)-BFS5 1. For the purpose of calculating the height, the following shall be excluded: a. items listed in the definition of height calculation; and b. in Activity Areas 1 and 4 only, a pavilion building to a maximum of 30% of the building footprint to enable the activation of a living roof, provided that the maximum height as measured from the finished floor level of the living roof is not exceeded by more than 4m.	
SPZ(PR)-BFS4 Building coverage	
1. The building coverage shall not exceed the maximum percentage of net site area: a. Activity Area 1 - 35%; b. Activity Area 2 - 35%; c. Activity Area 3 - 20%; d. Activity Area 4 - 35%; e. Activity Area 5 - 3%; f. Activity Area 6 - 3%; and g. Activity Area 7 - 20%	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD4 - Amenity values
SPZ(PR)-BFS5 Living roof	
1. In Activity Areas 1 and 4, buildings with a footprint over 2,000m^2 shall include a living roof.	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:** SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD4 - Amenity values
SPZ(PR)-BFS6 Building and structure setbacks	
1. Setbacks to be provided as per SPZ(PR)-APP1 as follows:	**Activity status when compliance is not achieved: RDIS** **Matters of control and discretion are restricted to:**

a. Pegasus Boulevard (Activity Areas 1 and 4) - 20m; b. Pegasus Boulevard (Activity Area 3) - 5m; 2. Setbacks to be provided in Activity Area 7 (excluding Lot 212 DP 403716 and Lot 230 DP 417391) as follows: a. Any building or structure shall be no less than 10m from any internal boundary or road boundary; and 3. Setbacks to be provided in Activity Area 7 on Lot 230 DP 417391 as follows: a. Any building or structure shall be no less than 3m from the road boundary with Taerutu Lane; and b. Any building or structure shall be no less than 10m from any internal boundary or other road boundary; 4. Setbacks to be provided on Lot 212 DP 403716 as follows: a. Any building or structure shall be no less than 3m from the road boundary with Atkinsons Lane; and b. Any building or structure shall be no less than 10m from any internal boundary or other road boundary.	SPZ-PR-MCD2 - Design considerations SPZ-PR-MCD4 - Amenity values SPZ-PR-MCD6 - Boundary setback **Notification** An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.
Exemption • The setback provisions do not apply to the temporary storage of non-motorised caravans.	
SPZ(PR)-BFS7 Landscaping	
1. The minimum amount of landscaped area in each activity area shall be: a. Activity Area 1 - 40%; b. Activity Area 2 - 30%; c. Activity Area 3 - 30%; d. Activity Area 4 - 40%; e. Activity Area 5 - 90%; and f. Activity Area 6 - 90%.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-BFS8 Outdoor storage	

1. All goods, materials or equipment shall be stored inside a building, except for vehicles associated with the activity parked on the site overnight.	**Activity status when compliance is not achieved: NC**
SPZ(PR)-BFS9 Commercial waste management	
1. All commercial activities shall provide: a. a waste management area for the storage of rubbish and recycling of no less than $5m^2$ with a minimum dimension of 1.5m; and b. waste management areas shall be screened or located behind buildings when viewed from any road or public space.	**Activity status when compliance is not achieved: DIS**
SPZ(PR)-BFS10 Building and structures colours and reflectivity	
1. Any buildings and structures within the Activity Areas 1 to 6 shall meet the following requirements: a. exterior wall cladding including gable ends, dormers and trim of all structures shall be finished in their natural colours or coloured earthly mid tones and achieve reflectivity between 5% and 22%; and b. roofs of all structures including trim shall be finished in their natural colours or coloured dark tones and achieve reflectivity between 5% and 12%.	**Activity status when compliance is not achieved: DIS**
SPZ(PR)-BFS11 Residential buildings on Lot 212 DP 403716 and Lot 230 DP 417391	
1. All buildings must be constructed on-site from new or high quality recycled materials; 2. Exterior cladding for all buildings (except for the	**Activity status when compliance is not achieved: DIS**

cladding of soffits or gable ends) shall be of the following materials: a. brick; or b. natural stone; or c. river rock; or d. texture plaster over brick, or polystyrene or other suitable sub base for plaster; or e. stained or painted timber weather-board, wooden shingles, timber board batten; or f. surface coated concrete block; or g. solid plaster or glazing. 3. All roofing material on any building shall be either: a. tiles (including clay, ceramic, concrete, decramastic, pre-coated or pressed steel); or b. steel (comprising pre-painted, long run pressed or rolled steel); or c. shingles; or d. slate; or e. membrane roofing. 4. No reflective or visually obtrusive roof, wall or joinery materials, colours or mirror glass may be used for any building; 5. No exterior cladding, no roofing material, no guttering or down pipe material comprising unpainted and/or exposed zinc coated products may be used on any building; 6. No buildings shall be erected using concrete or treated wooden piles without providing a solid and durable skirting board or other enclosure around the exterior of the building(s) from ground height to the underside of the wall cladding; 7. No accessory building shall be erected except in conjunction with or following construction of the residential unit and all such buildings shall be	

constructed with permanent materials comprising timber, stone or other permanent materials in character with the residential unit; 8. Air conditioning units must not be set into or protrude from the building(s). Any external air conditioning units must be properly screened; 9. No building shall be erected, altered, placed or permitted to remain other than buildings designed for residential activity and any accessory building; 10. Clotheslines and letterboxes must be unobtrusive and of good quality in terms of design and location. The positioning of any letterbox shall be adjacent to but not on the road reserve; and 11. Only post and rail fences may be erected on side boundaries. No fencing is permitted on road frontage or any internal boundary.	
SPZ(PR)-BFS12 Site layout Pegasus Resort ODP	
1. Development shall be in accordance with SPZ(PR)-APP1. 2. For the purpose of this built form standard the following amendments do not constitute a breach of SPZ(PR)-APP1: a. development shall facilitate a road connection at fixed road access point shown on SPZ(PR)-APP1 to enable vehicular access to roads which connect with Pegasus Boulevard and Mapleham Drive, provided that a variance of up to 20m from the location of the connection shown on SPZ(PR)-APP1 shall be acceptable; b. the provisions for breaks in the landscape buffer identified along the Pegasus Boulevard to	**Activity status when compliance not achieved: DIS**

accommodate entry and egress into and out of the site or where landscaping is required to be reduced in order to achieve the safe and efficient operation of existing road networks; and c. resizing, resitting and the provision of additional proposed stormwater ponds.	

Matters of Control or Discretion

SPZ-PR-MCD1	**Stormwater or recreational water bodies** 1. Landscaping, planting and screening; 2. Accessibility for maintenance purposes; 3. Design capacity; and 4. Integration into the stormwater network.
SPZ-PR-MCD2	**Design considerations** 1. The layout of non-fixed elements of the development in accordance with SPZ(PR)-APP1. 2. Design of development in accordance with the Pegasus design guidelines including: a. the bulk, scale, location and external appearance of buildings; b. the creation of active frontages adjacent to roads and public spaces; c. setbacks from roads; d. landscaping; e. streetscaping design; f. application of CPTED principles; g. focus on sustainable design to reduce carbon footprint; h. provision for internal walkways, paths, and cycleways; and i. appropriate legal mechanism to ensure implementation of design responses as relevant; 3. Lighting design that meets the character and amenity values for the activity area. 4. Adequate provision of storage and loading/servicing areas and access to all service areas that require ongoing maintenance. 5. Enhancement of ecological and natural values.
SPZ-PR-MCD3	**Transportation** 1. Safe, resilient, efficient functioning and sustainable for all transport modes. 2. Adverse effects on the character and amenity values of the surrounding area in terms of noise, vibration, dust, nuisance, glare or fumes.

	3. Provision of safe vehicle access and adequate on-site car parking and circulation and on-site manoeuvring. 4. Road and intersection design in accordance with SPZ(PR)-APP1. 5. Compliance with the relevant standards contained within the Transport Chapter.
SPZ-PR-MCD4	**Amenity values** 1. Effects of the development on: a. character and quality of the environment, including natural character, water bodies, ecological habitat and indigenous biodiversity, and sites of significance to Māori; b. existing landscape character values and amenity values of the zone in which it occurs, and the zone of the receiving environment; and c. the surrounding environment such as visual effects, loss of daylight, noise, dust, odour, signs, light spill and glare, including cumulative effects. 2. Effects of hours of operation on the amenity values of any surrounding residential properties, including noise, glare, nuisance, disturbance, loss of security and privacy. 3. Incorporation of effective mitigation such as landscaping or screening.
SPZ-PR-MCD5	**Golf facility considerations** 1. Maintaining the spatial extent of the 18 hole champion golf course. 2. Interface with public roads and open spaces. 3. Traffic generation, access and parking. 4. Noise duration, timing, noise level and characteristics, and potential adverse effects in the receiving environment.
SPZ-PR-MCD6	**Boundary setback** 1. The extent to which any reduced road boundary setback will detract from the pleasantness, coherence, openness and attractiveness of the site as viewed from the street and adjoining sites, including consideration of: a. compatibility with the appearance, layout and scale of other buildings and sites in the surrounding area; and b. the classification and formation of the road, and the volume of traffic using it within the vicinity of the site. 2. The extent to which the scale and height of the building is compatible with the layout, scale and appearance of other buildings on the site or on adjoining sites. 3. The extent to which the reduced setback will result in a more efficient, practical and better use of the balance of the site. 4. The extent to which any reduced setback from a transport corridor will enable buildings, balconies or decks to be constructed or maintained without requiring access above, on, or over the transport corridor.

SPZ-PR-MCD7	**Visitor accommodation units** 1. In relation to minimum unit size, where: a. the floor space available and the internal layout represents a viable visitor accommodation unit that would support the amenity values of current and future guests and the surrounding activity area; b. other onsite factors compensate for a reduction in unit sizes e.g. communal facilities; and c. the balance of unit mix and unit sizes within the overall development is such that a minor reduction in the area of a small percentage of the overall units may be warranted. 2. In relation to storage space, where: a. the extent to which the reduction in storage space will adversely affect the functional use of the visitor accommodation unit and the amenity values of neighbouring sites, including public spaces; and b. the extent to which adequate space is provided on the site for the storage of bicycles, waste and recycling facilities and clothes drying facilities. 3. In relation to outdoor living space, where: a. the extent to which the reduction in outdoor living space will adversely affect the ability of the site to provide for amenity values and meet outdoor living needs of likely future guests.
SPZ-PR-MCD8	**Flooding hazard** 1. The extent to which natural hazards have been addressed, including any actual or potential impacts on the use of the site for its intended purpose, including: a. the location and type of infrastructure; and b. any restriction on floor levels as a result of flood hazard risk. 2. The extent to which overland flow paths are maintained. 3. Any effects from fill on stormwater management on the site and adjoining properties and the appropriateness of the fill material. 4. Increased ponding or loss of overland flow paths.

Appendices

SPZ(PR)-APP1 - ODP

SPZ(PR)-APP2 - Pegasus Design Guidelines

Amend the Pegasus Design Guidelines:

…2.1 Design Considerations

…

adjoining the golf course and public realm (such as Pegasus Boulevard); ~~and~~

• Defines each of the activity areas and their associated uses~~.~~; and

• References the local historical and cultural context, including working alongside mana whenua to provide authentic reflections of cultural values.[82]

[82] Dexin [377.1, 377.2, 377.3, 377.15]

Definitions

Amend the definition of 'commercial golf resort activity':
"...

(e) gift/souvenir shop and any ancillary artisan workshops".[83]

Table SUB-S1

Format Table SUB-S1, row Special Purpose Zone (Pegasus Resort) as follows:

…

Special Purpose Zone (Pegasus Resort) • Areas 1, 2 and 4 • All other areas	No minimum 4ha	n/a n/a	n/a n/a[84]

[83] S&E Corp [416.15]
[84] DEXIN [377.18]

Appendix B. Recommended Responses to Submissions and Further Submissions

The recommended responses to the submissions made on this topic are presented in Table B 1 below.

Table B 1: Recommended responses to submissions and further submissions

Sub. Ref.	Submitter / Further Submitter	Provision	Decision Requested (Summary)	Section of this Report where Addressed	Officer's Recommendation	Officers' Reasons/Comments	Recommended Amendments to Proposed Plan?
General provisions							
155.15	Woodend-Sefton Community Board	General	Planning for active transport modes as part of any development.	N/A	Accept in part	The submitter is seeking Council advocate to Waka Kotahi for an underpass to be installed at the Pegasus/Ravenswood roundabout, which is not a District Plan Review matter. However, provision for active transport has been considered for the rezoning requests of 1250 Main North Road and 20 Te Haunui Lane.	N/A
377.18	DEXIN	General	Seek relief to enable any amendments to proposed district-wide plan provisions which apply to the subject site, where they do not align with the development intention of this submission. Any proposed changes to the district wide provisions would be identified and circulated to submitters prior to the hearing.	3.2	Reject	The consequential amendments to district-wide provisions have been provided with FS101 and updated in technical evidence. These include a definition of 'Mākete tourism' and an amendment to SUB-S1 to include Activity Areas 7B and 8 in the minimum allotment sizes for SPZ(PR). See the relevant section of the s42A report on rezoning request – 1250 Main North Road.	No
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
FS101	*DEXIN*		*Support - As part of DEXINs original submission, DEXIN sought scope to make consequential amendments to district wide provisions of the PDP, including Table SUB-1. DEXIN seeks that these amendments are accepted, noting that the current formatting of this table for the SPZ-PR row could be improved to assist with clearly identifying the minimum allotment areas that apply to each Activity Area.*	*3.2*	*Reject*	*See the relevant section of the s42A report.* *However, I agree that the formatting of Table SUB-1 could be improved and recommend this as a minor amendment.*	*No*
Planning maps							
191.1	Howard Stone	Planning maps	Rezone 3.81ha of 1188 Main North Road / 20 Te Haunui Lane, Woodend (refer to map in Appendix 2 of submission) from	3.3	Reject	See the relevant section of the s42A report.	No

Sub. Ref.	Submitter / Further Submitter	Provision	Decision Requested (Summary)	Section of this Report where Addressed	Officer's Recommendation	Officers' Reasons/Comments	Recommended Amendments to Proposed Plan?
			Rural Lifestyle Zone (RLZ) to Special Purpose Zone Pegasus Resort, with the balance of the property remaining RLZ. Infrastructure is available to service development without upgrading which Council may not have been aware of, development of the site has been anticipated and will not affect wider RLZ. Site is adjacent to Pegasus and Te Haunui Lane provided for 12 lots with services. Development would not create adverse effects on infrastructure or rural amenity and would allow more dwellings. Current access provision indicates future development. Supports zones such as the RLZ ensuring rural areas retain amenity. Amend the Special Purpose Zone (Pegasus Resort) - Appendix 1 – Outline Development Plan to include identified area as "Activity Area 7: Residential". Rezone part of 1188 Main North Road / 20 Te Haunui Lane, Woodend from Rural Lifestyle Zone to Special Purpose Zone (Pegasus Resort) as shown on map in Appendix 2 of submission.				
FS79	*Ravenswood Developments Ltd*		*Support - RDL agrees with the reasons set out in the submission, noting that there is a high demand for residentially zoned land at Woodend.* *Approve the rezoning sought.*	*3.3*	*Reject*	*See the relevant section of the s42A report.*	*No*
FS100	*S&E Corp*		*Neutral - S&E Corp would not oppose the rezoning of an additional area of vacant land as SPZ(PR) - Activity Area 7. S&E Corp notes that including any additional sites into the SPZ(PR) would require consequential amendments to the notified provisions and the Outline Development Plan.* *While S&E Corp are not opposed to the submitter's property being included within the SPZ(PR) as part of Activity Area 7, S&E Corp seeks scope to be included in any future discussions regarding changes to the provisions or the Outline Development Plan, to ensure there are no unintended consequences for the main SPZ(PR) zone.*	*3.3*	*N/A*	*See the relevant section of the s42A report.*	*No*
FS101	*DEXIN*		*Neutral - DEXIN would not oppose the re-zoning of an additional area of vacant land as SPZPR - Activity Area 7, noting that DEXIN is proposing to rename this activity area to 'Activity Area 7A' but with no changes to the anticipated activities or intensity of development as notified. DEXIN notes that including any additional sites into the SPZ-PR would require consequential amendments to the notified provisions and the Outline Development Plan.* *While DEXIN are not opposed to the submitter's property being included within the SPZ-PR as part of Activity Area 7, DEXIN seeks scope to be included in any future discussions regarding changes to the provisions or the Outline Development Plan, to ensure there are no unintended consequences for the main SPZ-PR zone.*	*3.3*	*N/A*	*See the relevant section of the s42A report.*	*No*
377.16	DEXIN	Planning maps	Oppose the proposed Rural Lifestyle zoning of 1250 Main North Road. Seek to expand the proposed SPZ(PR) zone	3.2	*Reject*	See the relevant section of the s42A report.	*No*

Sub. Ref.	Submitter / Further Submitter	Provision	Decision Requested (Summary)	Section of this Report where Addressed	Officer's Recommendation	Officers' Reasons/Comments	Recommended Amendments to Proposed Plan?
			boundary to include land at 1250 Main North Road. Limited additional strips of land adjacent to the 1250 Main North Road site will also be included. Adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site is in an extremely prominent location, ideally suited to the development of a tourist destination. The site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. Rezone Part Rural Section 864 (contained in record of title CB21A/964) from Rural Lifestyle Zone to Special Purpose Zone - Pegasus Resort.				
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
377.17	DEXIN	Planning maps	Supports in part the extent of the proposed SPZ(PR), as notified. Seek to expand the proposed SPZ(PR) zone boundary to include land at 1250 Main North Road. Limited additional strips of land adjacent to the 1250 Main North Road site will also be included. Adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site is in an extremely prominent location, ideally suited to the development of a tourist destination. The site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. Seek that the following land parcels contained within the proposed SPZ(PR) Activity Area 6 (Golf Course) remain within the SPZ(PR), but may necessitate a change to their Activity Area overlay within the SPZ(PR) ODP: - Part of Lots 97, 208 and 700 DP 417391 (contained in record of title 884357) and - Strip of land to the north of the site which is currently a conservation purposes Drain Reserve Red Map 58 (No certificate of title).	3.2	*Reject*	See the relevant section of the s42A report.	*No*
FS100	S&E Corp		S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*

Sub. Ref.	Submitter / Further Submitter	Provision	Decision Requested (Summary)	Section of this Report where Addressed	Officer's Recommendation	Officers' Reasons/Comments	Recommended Amendments to Proposed Plan?
			gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).				
Pegasus Resort - General							
155.13	Woodend-Sefton Community Board	General	Protect existing residential lots and housing in the Special Purpose Zone-Pegasus Resort.	N/A	N/A	The submitter has not stated how they wish the existing lots to be protected. However, effects on the surrounding environment including on character and amenity have been considered when assessing the rezoning request submissions.	No
FS100	*S&E Corp*		*Support - The SPZ(PR) will not impact upon the existing residential lots and housing in the SPZ(PR). S&E Corp seeks that the SPZ(PR) provisions which relate to Activity Area 7 are retained as notified.*	*N/A*	*N/A*	*See the relevant section of the s42A report.*	*No*
FS101	*DEXIN*		*Support - DEXIN seeks that the SPZ-PR provisions which relate to Activity Area 7 are retained as notified, with the exception of the minor change to the name of the Activity Area to 'Activity Area 7A – Low Density Residential'.* *The proposed SPZ-PR and expansion of the zone to cover the 1250 Main North Road site will not impact upon the existing residential lots and housing in the SPZ-PR.*	*3.2*	*N/A*	*See the relevant section of the s42A report.*	*No*
377.1	DEXIN	General	The SPZ(PR) and its associated Pegasus Resort ODP and Pegasus Design Guidelines be adopted along with amendments requested in the submission.	3.2	*Accept in part*	Accept the amendments to provide for cultural values that apply to the whole of the SPZ(PR) and are unspecific to the subject site.	*Yes*
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
377.2	DEXIN	General	The Special Purpose Zone - Pegasus Resort and its associated Pegasus Resort Outline Development Plan and Pegasus Design Guidelines be adopted along with amendments requested in the submission.	3.2	*Accept in part*	Accept the amendments to provide for cultural values that apply to the whole of the SPZ(PR) and are unspecific to the subject site.	*Yes*

Sub. Ref.	Submitter / Further Submitter	Provision	Decision Requested (Summary)	Section of this Report where Addressed	Officer's Recommendation	Officers' Reasons/Comments	Recommended Amendments to Proposed Plan?
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	No
Definitions							
377.14	DEXIN	Definitions - General	Include a new definition of 'agricultural tourism activities'.	3.2	Reject	See the relevant section of the s42A report.	No
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	Reject	*See the relevant section of the s42A report.*	No
Pegasus Resort - Introduction							
377.4	DEXIN	Introduction	Amend Special Purpose Zone - Pegasus Resort introduction to incorporate the new activity areas Activity Area 7B - Medium Density Residential, and Activity Area 8 - Agricultural Tourism, at 1250 Main North Road.	3.2	Reject	See the relevant section of the s42A report.	No
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
Pegasus Resort - Objectives							
377.5	DEXIN	SPZ(PR)-O1	Amend SPZ(PR)-O1 to include reference to the establishment of medium density residential activity and agricultural tourism activities, and/or add a new objective if necessary.	3.2	Reject	See the relevant section of the s42A report.	No

Sub. Ref.	Submitter / Further Submitter	Provision	Decision Requested (Summary)	Section of this Report where Addressed	Officer's Recommendation	Officers' Reasons/Comments	Recommended Amendments to Proposed Plan?
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
Pegasus Resort - Policies							
377.10	DEXIN	Policies – General	Amend to include a new policy or policies which specifically relate to proposed Activity Areas 7B (Medium Density Residential) and 8 (Agricultural Tourism) and which enables the establishment of the proposed activities.	3.2	Reject	See the relevant section of the s42A report.	No
FS100	S&E Corp		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
377.6	DEXIN	SPZ(PR)-P1	Amend SPZ(PR)-P1 to include reference to medium density residential and agricultural tourism.	3.2	Reject	See the relevant section of the s42A report.	No
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
377.7	DEXIN	SPZ(PR)-P4	Amend SPZ(PR)-P4 (provision of commercial activities) to ensure agricultural tourism commercial activities are provided for.	3.2	Reject	See the relevant section of the s42A report.	No

Sub. Ref.	Submitter / Further Submitter	Provision	Decision Requested (Summary)	Section of this Report where Addressed	Officer's Recommendation	Officers' Reasons/Comments	Recommended Amendments to Proposed Plan?
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
377.8	DEXIN	SPZ(PR)-P5	Amend SPZ(PR)-P5 (urban design elements) to add scope for the consideration of agricultural architecture design within Activity Area 8 (Agricultural Tourism).	3.2	Reject	See the relevant section of the s42A report.	No
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
377.9	DEXIN	SPZ(PR)-P9	Amend SPZ(PR)-P9 (residential development), and/or add a new policy, to provide for medium density residential activity within proposed Activity Area 7B (Medium Density Residential).	3.2	Reject	See the relevant section of the s42A report.	No
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
Pegasus Resort – Activity Rules							
377.11	DEXIN	Activity Rules - General	Amend the Special Purpose Zone - Pegasus Resort activity rule framework to incorporate the new activity areas (Activity Area 7B - Medium Density Residential and Activity Area 8 - Agricultural Tourism) on the site at 1250 Main North Road.	3.2	Reject	See the relevant section of the s42A report.	No

Sub. Ref.	Submitter / Further Submitter	Provision	Decision Requested (Summary)	Section of this Report where Addressed	Officer's Recommendation	Officers' Reasons/Comments	Recommended Amendments to Proposed Plan?
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
Pegasus Resort – Built Form Standards							
377.12	DEXIN	Built Form Standards – General	Amend the Special Purpose Zone - Pegasus Resort built form standards to incorporate the new activity areas (Activity Area 7B - Medium Density Residential and Activity Area 8 - Agricultural Tourism) at 1250 Main North Road.	3.2	Reject	See the relevant section of the s42A report.	No
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
Pegasus Resort – Matters of Control or Discretion							
377.13	DEXIN	Matters of Control or Discretion - General	Amend the Special Purpose Zone - Pegasus Resort matters of control and discretion to incorporate the new activity areas (Activity Area 7B - Medium Density Residential and Activity Area 8 - Agricultural Tourism) on the site at 1250 Main North Road.	3.2	Reject	See the relevant section of the s42A report.	No
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
Pegasus Resort - Appendices							

Sub. Ref.	Submitter / Further Submitter	Provision	Decision Requested (Summary)	Section of this Report where Addressed	Officer's Recommendation	Officers' Reasons/Comments	Recommended Amendments to Proposed Plan?
191.2	Howard Stone	SPZ(PR)-APP1	Amend the Special Purpose Zone (Pegasus Resort)-Appendix 1 - Outline Development Plan to rezone 3.81ha of 1188 Main North Road / 20 Te Haunui Lane, Woodend from Rural Lifestyle Zone (RLZ) to Activity Area 7: Residential Special Purpose Zone Pegasus Resort with remaining site area remaining RLZ.	3.3	Reject	See the relevant section of the s42A report.	No
FS100	*S&E Corp*		*Neutral - While S&E Corp are not opposed to the submitter's property being included within the SPZ(PR) as part of Activity Area 7, S&E Corp seeks scope to be included in any future discussions regarding changes to the provisions or the Outline Development Plan, to ensure there are no unintended consequences for the main SPZ(PR) zone.*	*3.3*	*N/A*	*See the relevant section of the s42A report.*	*No*
FS101	*DEXIN*		*Neutral - While DEXIN are not opposed to the submitter's property being included within the SPZ-PR as part of Activity Area 7, DEXIN seeks scope to be included in any future discussions regarding changes to the provisions or the Outline Development Plan, to ensure there are no unintended consequences for the main SPZ-PR zone.*	*3.3*	*N/A*	*See the relevant section of the s42A report.*	*No*
377.3	DEXIN	SPZ(PR)-APP1	The Special Purpose Zone - Pegasus Resort and its associated Pegasus Resort Outline Development Plan and Pegasus Design Guidelines be adopted along with amendments requested by the submitter.	3.2	Accept in part	Accept the amendments to provide for cultural values that apply to the whole of the SPZ(PR) and are unspecific to the subject site.	Yes
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*
377.15	DEXIN	SPZ(PR)-APP2	Incorporate proposed design guidelines for proposed Activity Areas 7B and 8 at 1250 Main North Road into the SPZ(PR)-APP2 - Pegasus Design Guidelines. Amend the general sections (Section 1 Introduction, Section 2 Built Form, Section 2.7 Access, Section 2.8 Safety, Section 3 Landscape, Appendix 1) of the SPZ(PR)-APP2 - Pegasus Design Guidelines as required.	3.2	Accept in part	Accept the amendments to provide for cultural values that apply to the whole of the SPZ(PR) and are unspecific to the subject site.	No
FS100	*S&E Corp*		*Support - S&E Corp agrees with the submitter that adding the 1250 Main North Road site to the SPZ(PR) is a natural extension of the zone. The site's location and development will enhance and complement the development of the Pegasus Resort. As noted by the submitter, the site is considered to be the gateway to Pegasus Village and has the*	*3.2*	*Reject*	*See the relevant section of the s42A report.*	*No*

Sub. Ref.	Submitter / Further Submitter	Provision	Decision Requested (Summary)	Section of this Report where Addressed	Officer's Recommendation	Officers' Reasons/Comments	Recommended Amendments to Proposed Plan?
			potential to become a flagship site drawing tourists off the main highway towards the SPZ(PR) and Pegasus township. S&E Corp seeks that Council approve the submission of DEXIN Investment Limited in full, to enable the development of the 1250 Main North Road site to proceed as an integral part of the SPZ(PR).				
FS101	*DEXIN*		*Support - As part of DEXIN's original submission, DEXIN sought scope to amend the Pegasus Design Guidelines. DEXIN seeks that the amendments to the text of these guidelines that have been provided as Appendix 4 to this submission are accepted, noting that DEXIN intends to provide renders for both Activity Areas 7B and 8 at the time that a collated final version of those guidelines is prepared for inclusion within the PDP.*	*3.2*	*Accept in part*	*Accept the amendments to provide for cultural values that apply to the whole of the SPZ(PR) and are unspecific to the subject site.*	*Yes*

Appendix C. Section 32AA Evaluation

C1. Overview and purpose

This evaluation is undertaken in accordance with section 32AA of the RMA. It examines the appropriateness of the recommended amendments to SPZ(PR)-O2 and SPZ(PR)-P1 to provide for cultural values. The Pegasus Resort Chapter provisions are contained in chapters Special Purpose Zone – Pegasus Resort.

This further evaluation should be read in conjunction with the Section 32 Report: Whaitua motuhake/ Special Purpose (Pegasus Resort) Zone prepared for the development of the Proposed Plan.

C2. Recommended amendments

I recommend the following amendments shown in pink text below to provide for cultural values as outlined in the Cultural Impact Assessment developed for DEXIN.

SPZ(PR)-O2	**Design components** The development of ~~spa/wellness and hot pool complex~~ a tourism resort centred on a spa village within a framework of open space and recreation facilities, that reflect the local open space, recreational, landscape, cultural and visual amenity values and achieve urban design excellence consistent with the Pegasus design guidelines.

SPZ(PR)-P1	**Outline development plan** Use and development of land shall: 1. … 2. ensure that development: ...g. provides an authentic reflection of the cultural values of the area in collaboration with mana whenua; and…

C3. Statutory Tests

The District Council must ensure that prior to adopting an objective, policy, rule or other method in a district plan, that the proposed provisions meet the requirements of the RMA through an evaluation of matters outlined in Section 32.

In achieving the purpose of the RMA, the District Council must carry out a further evaluation under section 32AA if changes are made to a proposal as a result of the submissions and hearings process. This evaluation must cover all the matters in sections 32(1)-(4).

Objectives

The objectives are to be examined in relation to the extent to which they are the most appropriate way to achieve the purpose of the RMA.[85] For the purposes of evaluation under section 32AA the following criteria form the basis for assessing the appropriateness of the proposed objectives:

- Relevance;
- Usefulness;
- Reasonableness; and
- Achievability.

Provisions

Each provision is to be examined as to whether it is the most appropriate method for achieving the objectives. For a proposed plan, the provisions are defined as the policies, rules, or other methods that implement, or give effect to, the objectives of the proposed plan.[86]

The examination must include assessing the efficiency and effectiveness (including costs and benefits of the environmental, economic, social, and cultural effects, quantified if practicable, and the risk of acting or not acting) and a summary of the reasons for deciding the provisions.

C4. Evaluation of Recommended Amendment to Objective

Objective SPZ(PR)-O2 is recommended to be amended as set out in Appendix A: The following tables provide an evaluation of the recommended amendment to the objective.

Table C 1: Recommended Amendment to Objective

Relevance	**Addresses a relevant resource management issue** Provides for cultural values, as described in the Cultural Impact Assessment.
	Assists the District Council to undertake its functions under s31 Yes as it assists achieving integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district.
	Gives effect to higher level documents Gives effect to the RMA and the CRPS to provide for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.
Usefulness	**Guides decision-making**

[85] RMA s32(1)(a)
[86] RMS s32(6)(a)

	The proposed amendment provides direction/clarity that cultural values are to be reflected when development occurs within the zone.
	Meets best practice for objectives The proposed amendment provides direction that development is to reflect cultural values and therefore better meets best practice requirements.
Reasonableness	**Will not impose unjustifiably high costs on the community / parts of the community** Cultural values are already a relevant consideration as there are SASM that apply to the SPZ(PR) zone. There is a Ngā tūranga tūpuna that applies to the whole zone (SASM013). The area comprises significant clusters of recorded archaeology of Māori origin and silent files so I do not consider it would impose unjustifiably high costs on the community.
	Acceptable level of uncertainty and risk There is no change in the uncertainty and risk with the proposed amendment.
Achievability	**Consistent with the Waimakariri District Council Long Term Plan 2021-2031 identified tangata whenua and community outcomes** The objective will be more consistent with tangata whenua and community outcomes including that the Council in partnership with Te Ngāi Tūāhuriri Rūnanga, continue to build the relationship through mutual understanding and shared responsibilities; and Māori cultural identity, values and aspirations are reflected in built and natural environments.
	Realistically able to be achieved within the District Council's powers, skills and resources There is no change for this criterion between the notified and proposed amended objective as council already has processes for collaboration with mana whenua.
Conclusion	The recommended amended objectives are the most appropriate way to achieve the purpose of the RMA by providing a coherent package of desired outcomes consistent with sustainable management.

Overall, the recommended amendment proposed to the objective provide for cultural values. For the purposes of sections 32 and 32AA, I consider that the revised objectives are the most appropriate way of achieving the purpose of the RMA.

C5. Evaluation of Policy

I have assessed how the recommended change to SPZ(PR)-P1 is the most appropriate to implement the objectives below. In undertaking this assessment, I have evaluated the recommended amendment against the provisions as notified.

Efficiency and Effectiveness of the Provisions

I have assessed the efficiency and effectiveness of the recommended amended provision in achieving the objectives, including identification and assessment of the costs and benefits anticipated from the implementation of the provisions in Table C 2 below.

Table C 2: Assessment of efficiency and effectiveness – SPZ(PR)-P1

Recommended Amendments to Provisions:	
Amendment to SPZ(PR)-P1 to provide for cultural values.	
Costs	**Benefits**
Potential economic cost and time involved in collaborating with mana whenua and in reflecting cultural values. However, this is already encouraged under SASM-P8. However, as "ensure" is more directive than "encourage", there may be a greater cost.	Collaboration with mana whenua and reflection of cultural values.
Efficiency	The provision is more efficient as it ensures cultural values are provided for.
Effectiveness	The amended provision better aligns with higher order documents and tangata whenua outcomes.
Summary	
The proposed amendment better gives effect to the RMA and the CRPS to provide for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga, and is therefore more efficient and effective.	

Overall, taking into account the assessment above, I consider the recommended amendment to the policy to be more efficient and effective in achieving the objectives than the notified provisions.

Adequacy of Information and Risk of Acting or Not Acting

Section 32(2)(c) of the RMA requires an assessment of the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.

The submission, further submission and evidence from DEXIN has raised the need to provide for Cultural Values to the SPZ(PR) provisions of the Proposed Plan.

If no action is taken and the Proposed Plan is retained as notified, the chapter may not provide for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.

The recommended amendment better achieves the purpose of the RMA and addresses this matter to assist in making the provisions efficient and effective in achieving the objectives. The risk in not acting is that the provisions do not effectively or efficiently achieve the objectives.

I consider there is sufficient information on which to base the recommended revised objective and policy.

C6. Conclusion

I have evaluated the recommended amendment to the objective to determine the extent to which the objective is the most appropriate way of achieving the purpose of the RMA where there is

necessary, and otherwise to give effect to higher order planning documents. I have also evaluated the recommended amendment to the policy, including its efficiency and effectiveness in achieving the proposed objective(s). I consider the proposed objective as recommended to be amended is an appropriate way of achieving the purpose of the RMA and the recommended change to the policy is the most appropriate means of achieving the objectives.

Appendix D. Statement of evidence of Shane Binder (Transport), John Aramowics (Servicing, Hazards), Christopher Bacon (Servicing, Hazards) on behalf of Waimakariri District Council

Before the Hearings Panel
At Waimakariri District Council

Under	Schedule 1 of the Resource Management Act 1991
In the matter of	the Proposed Waimakariri District Plan
Between	**Various**
	Submitters
And	**Waimakariri District Council**
	Respondent

Statement of evidence of Shane Binder (Transport), John Aramowicz (Servicing, Hazards), Christopher Bacon (Servicing, Hazards) on behalf of Waimakariri District Council.

Date: 8 April 2024

INTRODUCTION:

Mr Shane Isaac Binder (Transport)

1 My full name is Shane Isaac Binder. I am employed as the Senior Transportation Engineer for Waimakariri District Council.

2 I have prepared this statement of evidence on behalf of the Waimakariri District Council (**District Council**) in respect of technical related matters arising from the submissions and further submissions on the Proposed Waimakariri District Plan (**PDP**).

3 Specifically, this statement of evidence relates to transportation technical advice, identifying any significant constraints.

4 I am authorised to provide this evidence on behalf of the District Council.

Mr John Thomas Aramowicz (Servicing, Hazards)

5 My full name is John Thomas Aramowicz. I am acting as a consultant engaged to provide technical advice on behalf of the Waimakariri District Council.

6 I have prepared this statement of evidence on behalf of the Waimakariri District Council (**District Council**) in respect of technical related matters arising from the submissions and further submissions on the Proposed Waimakariri District Plan (**PDP**).

7 Specifically, this statement of evidence relates to civil and geotechnical engineering advice, identifying any significant constraints in relation to the various submissions that seek an alternative zoning to that originally put forward by WDC's Proposed District Plan.

8 I am authorised to provide this evidence on behalf of the District Council.

Mr Christopher Paul Bacon (Servicing, Hazards)

9 My full name is Christopher Paul Bacon. I am employed as a Network Planning Team Leader at Waimakariri District Council. In this position I am involved with planning for infrastructure growth and flood modelling.

10 I have prepared this statement of evidence on behalf of the Waimakariri District Council (**District Council**) in respect of technical related matters arising from the submissions and further submissions on the Proposed Waimakariri District Plan (**PDP**).

11 Specifically, this statement of evidence relates to servicing and hazards technical advice, identifying any significant constraints.

12 I am authorised to provide this evidence on behalf of the District Council.

QUALIFICATIONS AND EXPERIENCE

Mr Shane Isaac Binder (Transport)

13 I hold the qualifications of Bachelor of Science degree in Civil Engineering from Pennsylvania State University (USA), and a Master of Science degree in Civil Engineering from the University of Colorado (USA), both with specialisations in transport.

14 I have more than 22 years' experience as a professional traffic engineer and road safety specialist, both in New Zealand and abroad. I have had the position of Waimakariri District Council Senior Transportation Engineer for more than three years. In this role I manage the District's transport planning, strategy, and engineering functions, including road safety, traffic modelling, parking, and public transport elements.

15 I am a Chartered Professional Engineer (CPEng), a Professional Engineer (Colorado and Washington State, USA), and a Road Safety Professional

(Level 1) certified by the Institute of Transportation Engineers. I am a Chartered Member of Engineering New Zealand. I am also a member of the Transportation Group of Engineering New Zealand and am on the steering committee of the Safety Practitioners Sub-group.

16 I have been involved in the PDP since March 2021, providing advice when requested on general transport rules and activity standards.

Mr John Thomas Aramowicz (Servicing, hazards)

17 I am a Chartered Professional Engineer in the practice areas of civil and geotechnical engineering. I gained a Bachelor of Engineering in Mining Engineering from Curtin University in 1994.

18 I have over 20 years of experience as a civil and geotechnical engineer in Canterbury where I have consulted on numerous land development projects, insurance claims, and build projects. My main area of technical expertise is the assessment and management of risk from natural hazards, such as flooding, liquefaction, rock fall, land slippage, and subsidence. I also have experience with the design and construction of stormwater, water and wastewater systems in both rural and urban environments.

19 I am contracted by the Waimakariri District Council to provide civil and geotechnical engineering advice in relation to the various submissions that seek an alternative zoning to that originally put forward by WDC's Proposed District Plan.

20 My brief summary statements are based on information presented in the Applicants Evidence, from mapping information shown on the Waimakariri District Council's 'Waimaps' geographical information system (GIS), and from my discussion with WDC engineers.

21 Except where I state I rely on the evidence of another person, I confirm that the issues I have reviewed and any statements that I have made in

my summary are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

22 I have been involved in the PDP since March 2024.

Mr Christopher Paul Bacon (Servicing, Hazards)

23 I am a Chartered Professional Engineer and hold a Batchelor Degree in Civil Engineering. I have over 20 years of experience in civil engineering.

24 My summary statement has predominantly been based on modelling data shown on the Waimakariri District Council's 'Waimaps' geographical information system (GIS), much of which I was responsible for coordinating and managing, and from my discussion with other WDC engineers.

25 Except where I state I rely on the evidence of another person, I confirm that the issues I have reviewed and any brief summary statements that I have made are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

26 I have been involved in the PDP since 2021.

Code of conduct

27 I have read the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct in preparing my evidence and will continue to comply with it while giving oral evidence before the Environment Court. My qualifications as an expert are set out above. Except where I state I rely on the evidence of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise, and I have

not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

SUMMARY

28 The brief summary statements made by Mr Aramowicz and Mr Bacon typically relate to an intention that Council avoid rezoning in areas where;

- The future activity (ie densification or change in land use) is likely to result in a significant increase in the risk of damage from a natural disaster, and/or

- There is insufficient water/wastewater/stormwater capacity and where Council has not planned to provide sufficient services for the proposed land use in its growth planning.

SCOPE OF EVIDENCE

29 This statement of evidence addresses matters raised by submitters in relation to transport, civil and geotechnical engineering.

30 Attachment A includes a table of expert engineering evidence.

31 Attachment B is a memo referenced within Attachment A, concerning servicing of rezoning submissions 191 and 377.

Date: 8 April 2024

Ref.	Sub No.	Identifier	Transport	Servicing	Geotech	Hazards	Greenspace
1	s 377	Dexin - 1250 Main Nth Rd	Submission 377- 1250 Main North Road oAccess from the state highway – access point(s) from SH1 north of the Pegasus Roundabout presents a substantive risk based on the following: -Waka Kotahi generally requires access from a local road, not a limited-access State Highway. Waka Kotahi also generally has to approve the change in use of an existing crossing place. PDP requires access from the lowest ranking road the lot has frontage to - TRAN R-8 - **access should be from Burntwood/Mapleham. Access from Pegasus Boulevard is not supported; a commercial access will not fit between the bridge and the edge of the site either.** -It is noted that the existing access is approximately 105m north of the Pegasus roundabout and the proposed additional access off SH1 is 205m from the roundabout. The proposed access to Pegasus Blvd is approximately 130m from the roundabout. The distance of the existing access point likely does not meet Waka Kotahi Planning Policy Manual (App 5B) and Austroads AGRD03 guidance/requirements on access spacing, and may not be approved by Waka Kotahi. It is also in close proximity to a bridge, and introducing an access on a busy road near a busy roundabout is not supported. -The separation to the proposed Pegasus Blvd access point also does not meet the aforementioned guidance/requirements; however the distance would appear to meet PDP separation distances in Table TRAN-17. Note this may not be achieved after the bypass upgrades have been undertaken. -Note I understand Waka Kotahi may be considering a double laned, fully grade separated interchange at Pegasus Blvd / Bob Robertson Dr, which if implemented could very well require more land off the 1250 Main North Road frontage. It also would create complications with any access along the length of the frontage. Consultation with Waka Kotahi, as previously advised by Council, is strongly recommended oI concur with Mark Gregory's comments on trip generation, with some additional specifics. I do note that these changes are not likely to cause traffic operations issues **if the Woodend Bypass is constructed as presently proposed** -There is a lack of justification from the submitter for trip chaining discounts, reduced residential trip generation (compared to the industry standard NZTA Research Report 453), market trip generation (which doesn't align with Market land use in NZTA RR 453), or trip generation calculations for Outdoor Experience (noting without these, total is 1,250vpd) oThe secondary submission from the applicant suggests that additional traffic engineering assessment will be presented as part of the Hearing Stream so I cannot comment on the matters raised at this point. oODP comment – a more direct pedestrian link should be included to the Pegasus Roundabout, bus stops, and potentially Ravenswood KAC. -This also should be taken into consideration when evaluating statements from the applicant around VKT reduction (e.g., by shifting tourism activities closer than Hanmer Springs). Independent of the validity of that line of thought, the convenient ability to visit this tourist destination by mode other than personal vehicle is critical to any claim of reducing emissions or VKT. **Shane Binder - 22 March 2024**	**Stormwater**: It is my opinion that onsite SW treatment and disposal/attenuation is achievable at this site and should not prevent the proposed rezoning, but the developer will need to be aware of the need to avoid any increase in risk of flooding to adjacent/downstream properties. **Wastewater**: Chris Bacon's Dec 2023 memo (TRIM231214201349) notes: wastewater will need to be either pressure sewer or gravity sewer fed into a pumping station, then wastewater could feed into the Ravenswood rising main. However, Council asset managers may not support this option (i.e. connecting into the rising main) so the site may need to run its own rising main west under SH1 and connect to the Kesteven pump station in Ravenswood, or run a new rising main east to the Main Street Pumpstation in Pegasus or directly to the WWTP. There is no capacity in the Mapleham STEP system for a development of this nature. **The cost of sewer servicing for this site is likely to be high.** **Water**: Chris Bacon's Dec 2023 memo confirms 'Water servicing is expected to be possible for both sites, and in addition to our planned growth and upgrades in the Council's 50 Year Growth Plan'. Council asset managers may not support a connection into the 355mm dia main on Pegasus Boulevard, so the submitter would need to look at options on Burntwood and Mapleham Drive. Two connects are required for resilience. Firefighting flows should be achievable. It is my opinion that the proposed subdivision can be serviced by the existing WDC water supply. **John Aramowicz - 21 March 2024**. **Reviewed with Chris Bacon 22/3/24.**	There are no significant natural hazards that can't be addressed at time of detailed engineering design. Note the presence of Taranaki Stream that will need protection and appropriate setbacks. I recommend the developer be required to achieve low-moderate risk of liquefaction induced damage(ie TC1 or TC2 - equivalence) to land, services and other Council infrastructure. **John Aramowicz - 21 March 2024**	There are no significant natural hazards that cant be addressed at time of detailed engineering design. Note the presence of Taranaki Stream that will need protection and appropriate setbacks. I recommend the developer be required to achieve low-moderate risk of liquefaction induced damage(ie TC1 or TC2 - equivalence) to land, services and other Council infrastructure. **John Aramowicz - 21 March 2024**. **Reviewed with Chris Bacon 22/3/24.**	Not requested

Ref.	Sub No.	Identifier	Transport	Servicing	Geotech	Hazards	Greenspace
2	s 191	Howard Stone - 1188 Main Nth Rd	•Submission 191- Te Haunui Lane oThe proposed area should not have issues with vehicular access if the Woodend Bypass is constructed as presently proposed. oI would not consider this site to have appropriate public transport or non-motorised access to the KAC. The nearest bus stops are 1 km away and walking/cycling access to Woodend is problematic / to the future Ravenswood KAC requires crossing the challenging Pegasus roundabout oI strongly support the NPS-UD "urban environment" questions previous raised by Jessica Manhire in her 12 February 2024 email. oAn existing access has been formed off Te Haunui Lane along with a deposited land parcel. The land is 15m wide while the sealed entry is about 5.5m wide. Neither meet Council standards for local roads. Both operative and proposed DPs would require a development of this size to be served by a publicly vested road. -A ROW by definition rarely provides the functions of a road – on-street parking, street trees (with stormwater attenuation, pedestrian shading, heat island dissipation, and speed slowing effects), separated footpaths, street lighting, and sufficient sightlines – so properties that are accessed by ROWs get a lower level of service. In this instance I am comfortable with the width of the proposed land to access (not meeting the DP road reserve requirement) if it is to remain a private access, but I would strongly urge the sealed access be widened to accommodate 2-way traffic 6m or more) -I would also somewhat question whether there is any value to the general public to having this access vested and maintained by ratepayers. So long as most or all of the functions of a road are met in the private access, I am comfortable with this remaining privately owned. This can also be worked out to some degree in the RC so long as the ODP does not provide too much detail at this stage. oComments on the ODP – depending on the public/private status of the site access and potential provision of future non-motorised pathway along the Woodend Bypass, there could be a benefit to a walking link to the Wai Ora Stream - **Shane Binder 22 March 2024**	**Stormwater**: It is my opinion that onsite SW treatment and disposal/attenuation is achievable at this site and should not prevent the proposed rezoning to residential activity area as part of the SPZ Pegasus. **Wastewater**: Rezoning of thesite to LLRZ can be accomodated by the existing sewer system. The onsite W/W system will require approval from WDC but is likely to be a STEP system. Original modelling supporting the Pegasus/Mapleham subdivision was designed to accommodate flows from 12 lots. **Water**: Based on the Woods memo, and the Dec 2023 summary by Chris Bacon (TRIM231214201349), it is my opinion that theproposed subdivision can be serviced by the existing WDC water supply. **John Aramowicz - 21 March 2024**. **Reviewed with Chris Bacon 22/3/24.**	There are no significant natural hazards that cant be addressed at time of detailed engineering design. Note the presence of the two overland flow channels that will need protection. I recommend the developer be required to achieve low-moderate risk of liquefaction induced damage(ie TC1 or TC2 - equivalence) to land, services and other Council infrastructure. **John Aramowicz - 21 March 2024**	There are no significant natural hazards that cant be addressed at time of detailed engineering design. Note the presence of the two overland flow channels that will need protection. I recommend the developer be required to achieve low-moderate risk of liquefaction induced damage(ie TC1 or TC2 - equivalence) to land, services and other Council infrastructure. **John Aramowicz - 21 March 2024**. **Reviewed with Chris Bacon 22/3/24.**	Not requested

WAIMAKARIRI DISTRICT COUNCIL

MEMO

FILE NO AND TRIM NO:	DDS-06-10-02-04-04-01 / 231214201349
DATE:	14 December 2023
MEMO TO:	Jessica Manhire, Policy Planner
FROM:	Network Planning, Waimakariri District Council
SUBJECT:	Pegasus Resort Rezoning Requests – Servicing Relating to; • 1250 Main North Road – Submission # 377 • 1188 Main North Road – Submission # 191

In response to Pegasus Resort Rezoning Request Submissions #191 and # 377, the Waimakariri District Council's Network Planning Team has considered the ability to service 1250 Main North Road and 1188 Main North Road at a high-level. Servicing these properties has not been considered in the Council's 50 Year growth planning.

The Council's short term and long term models for both water and sewer were considered.

Sewer – 1250 Main North Road

Either pressure sewer or gravity sewer fed into a pumping station would be required, then wastewater could feed into the Ravenswood rising main.

For long term sewer servicing it is assumed that the entirety of the current Ravenswood subdivision would be fully developed discharging into the current rising main, but that any further possible growth to the North would create a new rising main (which the Council's long term growth modelling has generally shown will be necessary). With this in mind, there would be capacity in the current rising main for development on these Lots.

Sewer – 1188 Main North Road

For 1188 the 12 lots proposed were allowed for as part of the original scheme design for the wastewater system. So there are no capacity constraints here.

Water

Water servicing is expected to be possible for both sites, and in addition to our planned growth and upgrades in the Council's 50 Year Growth Plan.

Drainage

On site drainage infrastructure to provide for both treatment and mitigation of downstream effects will need to be provided by both developments. There is no capacity in any Council drainage network for the additional lots.

Appendix E. Memorandum of Shane Binder on Transportation matters for 1250 Main North Road Rezoning Request

WAIMAKARIRI DISTRICT COUNCIL

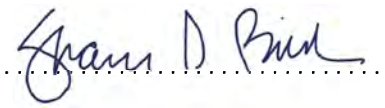
MEMO

FILE NO AND TRIM NO:	DDS-14-08 / 240502069428
DATE:	1 May 2024
MEMO TO:	Jessica Manhire, Policy Planner
FROM:	Shane Binder, Senior Transportation Engineer (WDC)
SUBJECT:	1250 Main North Road – Pegasus Resort rezoning submission

Based on technical evidence reviewed to date on submission 377 (1250 Main North Road) and a subsequent meeting with the applicant's transport engineer (on 15th April), there is insufficient information available at this time to conclude that there will be no substantive effects on transport safety or operations. Areas of concern or still lacking detail include:

- Viability of any direct access to/from SH1
- Design and effects of accesses onto Pegasus Blvd and Burntwood Lane
- Non-motorised connections to Ravenswood Key Activity Centre, existing PT stops, and future major cycleway network (e.g., Woodend to Pegasus Cycleway)
- Final composition of development and resulting trip generation and distribution
- Capacity limitations and safety impacts of additional traffic on Main North Road in the unlikely event that the Woodend Bypass (Christchurch Northern Link) is not constructed

Date: 01/05/2024



Appendix F. Cultural Advice Report: 20 Te Haunui Lane

226 Antigua Street, Central Christchurch, Telephone: +64 3 377 4374
Website:www.mahaanuikurataiao.co.nz

CULTURAL ADVICE REPORT

J6336 - 20 Te Haunui Lane

To: Waimakariri District Council

Contact: Jessica Manhire

1.0 Mana Whenua Statement

Ngāi Tahu are tangata whenua of the Canterbury region and hold ancestral and contemporary relationships with Canterbury. The contemporary structure of Ngāi Tahu is set down through the Te Rūnanga o Ngāi Tahu Act 1996 (TRoNT Act). The TRoNT Act and Ngāi Tahu Claims Settlement Act (NTCSA) 1998 sets the requirements for recognition of tangata whenua in Canterbury.

The Te Rūnanga o Ngāi Tahu Act 1996 and the NTCSA 1998 gives recognition to the status of Papatipu Rūnanga as kaitiaki and mana whenua of the natural resources within their takiwā boundaries. Each Papatipu Rūnanga has their own respective takiwā, and each is responsible for protecting the tribal interests in their respective takiwā, not only on their own behalf of their own hapū, but again on behalf of the entire tribe.

The following Rūnanga hold mana whenua over the project's location, as it is within their takiwā:

- Ngāi Tūāhuriri Rūnanga

2.0 Summary of Proposal

Howard Stone has made a submission to Waimakariri District Council to amend the Proposed Waimakariri District Plan 2021 (PWDP).

The submission seeks to rezone part of this site from Rural Lifestyle Zone (RLZ) to Special Purpose Zone Pegasus Resort (SPZ PR) and amend the SPZ(PR) – Outline Development Plan to include the re-zoned area to become "Activity Area 7: Residential".

The site is located within the Ashley Estuary (Te Aka Aka) and Coastal Protection Zone.

The submission notes that the subject site has been anticipated to be developed in the future.

3.0 Consultation Methodology

Mahaanui Kurataiao Limited review the application documents and undertake an assessment of the application against the Mahaanui Iwi Management Plan.

A briefing report is prepared for Kaitiaki representatives who have been mandated by the Papatipu Rūnanga they represent to speak on behalf of hapū on environmental issues.

A Mahaanui Kurataiao Limited staff member meets with Kaitiaki representatives to discuss the application and Kaitiaki provide feedback based on Mātauranga Māori.

The Cultural Advice Report is provided to outline the relevant policies in the Mahaanui Iwi Management Plan and the feedback provided by Kaitiaki representatives.

The relevant policies and Kaitiaki feedback for this application are provided in the following sections of this report.

4.0 Mahaanui Iwi Management Plan 2013

The Mahaanui Iwi Management Plan (IMP) is a written expression of kaitiakitanga, setting out how to achieve the protection of natural and physical resources according to Ngāi Tahu values, knowledge, and practices. The plan has the mandate of the six Papatipu Rūnanga, and is endorsed by Te Rūnanga o Ngāi Tahu, as the iwi authority.

Natural resources – water (waterways, waipuna (springs), groundwater, wetlands); mahinga kai; indigenous flora and fauna; cultural landscapes and land - are taonga to mana whenua and they have concerns for activities potentially adversely affecting these taonga. These taonga are integral to the cultural identity of ngā rūnanga mana whenua and they have a kaitiaki responsibility to protect them. The policies for protection of taonga that are of high cultural significance to ngā rūnanga mana whenua are articulated in the IMP.

The policies in this plan reflect what Papatipu Rūnanga support, require, encourage, or actions to be taken with regard to resolving issues of significance in a manner consistent with the protection and enhancement of Ngāi Tahu values, and achieving the objectives set out in the plan.

The relevant Policies of the IMP to this proposal have been identified as:

5.1 KAITIAKITANGA

TE TIRITI O WAITANGI

K2.3 In giving effect to Te Tiriti, government agencies and local authorities must recognise and provide for kaitiakitanga and rangatiratanga. As the tāngata whenua who hold manawhenua, Ngāi Tahu interests in resource management extend beyond stakeholder or community interests.

Comment: *Kaitiakitanga is fundamental to the relationship between Ngāi Tahu and the environment. Te Tiriti o Waitangi guarantees tāngata whenua the right to fulfill their kaitiaki obligations to protect and care for taonga in the environment, including land, waterways, natural features, wāhi tapu and flora and fauna with tribal areas.*

5.3 WAI MĀORI

TĀNGATA WHENUA RIGHTS AND INTERESTS IN FRESHWATER

WM1.1 Ngāi Tahu, as tāngata whenua, have specific rights and interests in how freshwater resources should be managed and utilised in the takiwā.

CHANGING THE WAY WATER IS VALUED

WM2.3 To require that decision making is based on intergenerational interests and outcomes, mō tātou, ā, mō kā uri ā muri ake nei.

WATER QUALITY

WM6.1 To require that the improvement of water quality in the takiwā is recognised as a matter of regional and immediate importance.

Controls on land use activities to protect water quality

WM6.17 To require the development of stringent and enforceable controls on the following activities given the risk to water quality:
(a) Intensive rural land use (see Issue WM.7);
(b) Subdivision and development adjacent to waterways;
(c) Discharge to land activities associated with industry;

Costs and benefits

WM6.22 To require that local authorities afford appropriate weight to tāngata whenua values when assessing the costs and benefits of activities that may have adverse effects on water quality.

WM6.23 To ensure that economic costs do not take precedence over the cultural, environmental and intergenerational costs of poor water quality.

Cumulative effects

WM7.14 To require that the effects of land use activities on water quality and quantity are assessed with due regard to the cumulative effects of all land use in the catchment and as well as of individual consents.

ACTIVITIES IN THE BEDS AND MARGINS OF RIVERS AND LAKES

Riparian areas

WM12.2 To require the protection and restoration of native riparian vegetation along waterways and lakes in the takiwā as a matter of priority, and to ensure that this can occur as a permitted activity.

Use and enhancement of river margins in the built/ urban environment

WM12.4 All waterways in the urban and built environment must have indigenous vegetated healthy, functioning riparian margins.

WM12.5 To require that all waterways in the urban and built environment have buffers or set back areas from residential, commercial or other urban activity that are:
(a) At least 10 metres, and up to 30 metres; and
(b) Up to 50 metres where there is the space, such as towards river mouths and in greenfield areas.

WM12.7 To require all esplanade reserves and esplanade strips established on subdivisions to incorporate native riparian planting.

***Comment**: Water is a significant cultural resource, connecting Ngāi Tahu to the landscape, culture and traditions of the tūpuna. Wai is a taonga, and a life giver of all things. The protection and*

enhancement of wai is, therefore, of upmost importance to tāngata whenua. The RMA recognises the relationship of Māori to freshwater as a matter of national importance.

5.4 PAPATŪĀNUKU

URBAN AND TOWNSHIP PLANNING

P3.2 To ensure early, appropriate and effective involvement of Papatipu Rūnanga in the development and implementation of urban and township development plans and strategies, including but not limited to:

(a) Urban development strategies;
(b) Plan changes and Outline Development Plans;
(c) Area plans;
(d) Urban planning guides, including landscape plans, design guides and sustainable building guides;
(e) Integrated catchment management plans (ICMP) for stormwater management;
(f) Infrastructure and community facilities plans, including cemetery reserves; and
(g) Open space and reserves planning.

P3.3 To require that the urban development plans and strategies as per Policy P3.2 give effect to the Mahaanui IMP and recognise and provide for the relationship of Ngāi Tahu and their culture and traditions with ancestral land, water and sites by:

(a) Recognising Te Tiriti o Waitangi as the basis for the relationship between Ngāi Tahu and local government;
(b) Recognising and providing for sites and places of importance to tāngata whenua;
(c) Recognising and providing for specific values associated with places, and threats to those values;
(d) Ensuring outcomes reflect Ngāi Tahu values and desired outcomes; and
(e) Supporting and providing for traditional marae based communities to maintain their relationship with ancestral land

SUBDIVISION AND DEVELOPMENT

Processes

P4.1 To work with local authorities to ensure a consistent approach to the identification and consideration of Ngāi Tahu interests in subdivision and development activities, including:

(a) Encouraging developers to engage with Papatipu Rūnanga in the early stages of development planning to identify potential cultural issues; including the preparation of Cultural Impact Assessment reports;
(b) Ensuring engagement with Papatipu Rūnanga at the Plan Change stage, where plan changes are required to enable subdivision;
(c) Requiring that resource consent applications assess actual and potential effects on tāngata whenua values and associations;
(d) Ensuring that effects on tāngata whenua values are avoided, remedied or mitigated using culturally appropriate methods;
(e) Ensuring that subdivision consents are applied for and evaluated alongside associated land use and discharge consents; and
(f) Requiring that ‘add ons’ to existing subdivisions are assessed against the policies in this section.

Basic principles and design guidelines

P4.3 To base tāngata whenua assessments and advice for subdivision and residential land development proposals on a series of principles and guidelines associated with key issues of importance concerning such activities, as per Ngāi Tahu subdivision and development guidelines.

Comment: *Papatūānuku is the birthplace of all things of the world and the place to which they return. Subdivision and development activities can compromise the mauri of the land and the life it supports if not managed appropriately. Subdivision and development activities must implement low impact, innovative, and sustainable solutions to water, stormwater, and energy issues.*

5.8 NGĀ TŪTOHU WHENUA

WĀHI TAPU ME WĀHI TAONGA

CL3.8 To require, where a proposal is assessed by tāngata whenua as having the potential to affect wāhi tapu or wāhi taonga, one or more of the following:
(a) Low risk to sites:
(i) Accidental discovery protocol (ADP)

Comment: *For Ngāi Tahu cultural heritage isn't something that happened in the past; but rather a reflection of an ongoing and enduring relationship with the land. As a planning tool, cultural landscapes are a culturally meaningful and effective framework for the identification, protection and management of sites and places of significance, the multiple values associated with those sites and places, and the relationship of tāngata whenua to them.*

4.1 Guidance to Moderate Impacts on Cultural Values

The above policies from the Mahaanui IMP provide a framework for assessing the potential negative impacts of the proposed activity on cultural values and provide guidance on how these effects can be moderated.

Urban development strategies, outline development plans, area plans, and other similar planning documents are developed to manage the effects of land use change and development on the environment. It is critical that such initiatives include provisions for the relationship of tāngata whenua with the environment, and that Ngāi Tahu are involved with the preparation and implementation of such plans, as tāngata whenua and as a Treaty partner.

Particular issues of concern for tāngata whenua regarding general land use and development across the tākiwa include intensification of land use and developments and potential effects on environment and mahinga kai, including increased run off of sediment and contaminants, land development and potential effects on natural character and cultural landscape values, granting of subdivision consents which require appropriate infrastructure to be in place to support the increased population, the protection of known and unknown sites of significance and the settings (cultural landscapes) in which they occur, the potential effects of land use and development on indigenous vegetation. A cultural landscape approach is used by Papatipu Rūnanga to identify and protect tāngata whenua values and interests from the effects of subdivision, land use change and development. A cultural landscape approach enables a holistic identification and assessment of sites of significance, and other values of importance such as waterways, wetlands and waipuna.

Ngāi Tahu, as tāngata whenua, have customary rights and responsibilities associated with freshwater resources in the region, as expressed through the exercise of manawhenua, rangatiratanga, kaitiakitanga and manaakitanga, and as guaranteed by Te Tiriti o Waitangi. Ensuring that freshwater

management recognises and provides for these rights and interests is critical to enabling tāngata whenua to protect water as a taonga for future generations. Water and land should be managed as interrelated resources embracing the practice of Ki Uta Ki Tai, which recognises the connection between land, groundwater, surface water and coastal waters.

Cultural health assessments undertaken by Ngāi Tahu in the last ten years indicate that many waterways are in a poor state of cultural health and do not meet basic standards for cultural use. For Ngāi Tahu, water quality is a measure of how well we are doing with regard to land and water management. Ngāi Tahu require that the incremental and cumulative effects of the increase of impervious surfaces and general stormwater discharge are recognised and provided for in local authority planning and assessments.

The rezoning of rural land to enable subdivision and residential, rural residential or business development is an important issue in the Waimakariri catchment as existing settlements and business zones seek to expand and new rural land is targeted for residential development. Increasing the density of residential, business and industrial uses of land can put further strain on the quality and quantity of freshwater resources and increase the risk to wāhi tapu and wāhi taonga. The cultural and environmental costs and benefits to current and future generations must be considered equally alongside economic costs when assessing plan changes. It is the intergenerational responsibility and right of tāngata whenua to take care of the environment and resources upon which we depend.

This Proposed Waimakariri District Plan 2021 amendment submission seeks to rezone the proposed site from Rural Lifestyle Zone to a Special Purpose Zone Pegasus Resort and amend the Special Purpose Zone Pegasus Resort Outline Development Plan to include the re-zoned area to become “Activity Area 7: Residential”. This amendment would allow for the residential development of the previously rural site in the future, increasing the environmental and cultural demands on wai māori, papatūānuku, and ngā tūtohu whenua. Te Ngāi Tūāhuriri Rūnanga Kaitiaki are therefore opposed to this application.

5.0 Rūnanga – Affected Party or Not

Te Ngāi Tūāhuriri Rūnanga Kaitiaki are opposed to this submission to amend the Proposed Waimakariri District Plan 2021 due to:

- The anticipated increase in subdivision and development activities, impervious surfaces and cumulative environmental effects resulting from the plan change.
- The ongoing impact of subdivision and development in this area on waterways and groundwater.

Therefore, Te Ngāi Tūāhuriri Rūnanga Kaitiaki consider themselves an affected party.

6.0 Consent Conditions

No comments are provided as there are no recommendations that are deemed suitable to mitigate the effects of the proposed plan change on mana whenua values.

On behalf of Mahaanui Kurataiao Ltd, this report has been prepared by Angela Burton | Mahaanui Kurataiao Ltd Environmental Advisor, and peer reviewed by Henrietta Carrol | Mahaanui Kurataiao Ltd Kaihautū.

Date: 5th April 2024

Appendix G. Decision of Hearing Commissioners - RC055641 and RC055642

Appendix H. Report Author's Qualifications and Experience

I hold a Master of Planning (First Class Honours) from Lincoln University, and a Bachelor of Arts from University of Canterbury. I am an Intermediate Member of the New Zealand Planning Institute.

I have more than six years' planning experience and have been employed as a Policy Planner at Waimakariri District Council within the Development Planning Unit since 2016. During this time, I have been involved in all stages of the District Plan Review (District Plan effectiveness analysis, issues and options analysis, chapter drafting, preparation of section 32 evaluation reports, public consultation and engagement, and summarising submissions). I was specifically involved in the development of the Light, Noise, Hazardous Substances, Contaminated Land, Earthworks, and Temporary Activities chapters.

I also processed resource consents while working at the Christchurch City Council on a casual contractual basis for 18 months.