



Assessment of Landscape Effects

Plan Change 14 to the Waipā District Plan - Mangaone Precinct

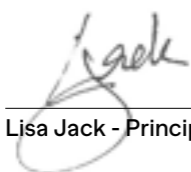
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**HARRISON
GRIERSON**

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Originators 
Lisa Jack - Principal Landscape Architect

Reviewed 
Vina Quartermain - Senior Landscape Architect


Peter Kensington - Consultant Landscape Architect

Approved for issue 
Philip Comer - Project Co-ordinator

Office of Origin Auckland
Telephone (09) 917 5000
Email designstudio@harrisingrierson.com

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1.0 Introduction

This document has been prepared by Harrison Grierson (HG) on behalf of Fonterra Limited (referred to as 'Fonterra' in this report).

This independent landscape assessment relates to a private plan change request by Fonterra to amend the Waipā District Plan. The changes sought are to provide for expansion of the 'Industrial Zone' known as the 'Bardowie Industrial Precinct' located within the C10 Growth Cell (Industrial 105ha) at Hautapu to the east of Victoria Road as identified in Figure 1 opposite.

The land subject to the plan change request is at 185-195 Swayne Road (owned by Fonterra) and 137 Swayne Road (referred to as the 'Kiwifruit Block', and not owned by Fonterra). These areas are identified as a combined group in pink and labelled 'PC14' in Figure 1. The plan change request has been referred to by Waipā District Council as 'Plan Change 14' to the Waipā District Plan ("PC14") and the land associated with PC14 is referred to as the 'Mangaone Precinct' in this report.

It is noted the while the proposed plan change seeks to rezone all of the land within the Mangaone Precinct to Industrial Zone, the Mangaone Precinct Structure Plan and related provisions will only apply to 185-195 Swayne Road, not 137 Swayne Road. In assessing the landscape effects of the Mangaone Precinct provisions on 185-195 Swayne Road, this report refers to this land as the 'Mangaone Precinct Structure Plan Area'.

This report gives an overview of the existing landscape and visual components within the Mangaone Precinct and its surrounds. It assesses the landscape and visual effects (positive and negative) of the proposed rezoning on the immediate and surrounding character of the environment. This is done while recognising that the expansion and location of this zoning has already been identified in the Waipā District Plan.

It should be noted that input was given to the development of the proposed structure plan and plan change provisions with a view to ensuring the landscape effects of rezoning were well considered for the surrounding environments. These proposed changes to the District Plan can be seen within the proposed Plan Change application in Section 4.

This assessment:

- Describes the Plan Change Area, its landscape setting and associated character and values
- Describes the potential landscape effects of development that would be enabled by the proposed plan change
- Sets out an assessment of the potential landscape and visual effects in respect of the plan change (positive and negative)
- Provides a conclusion and discusses any additional recommendations which have not already been incorporated into the structure plan and plan change provisions.

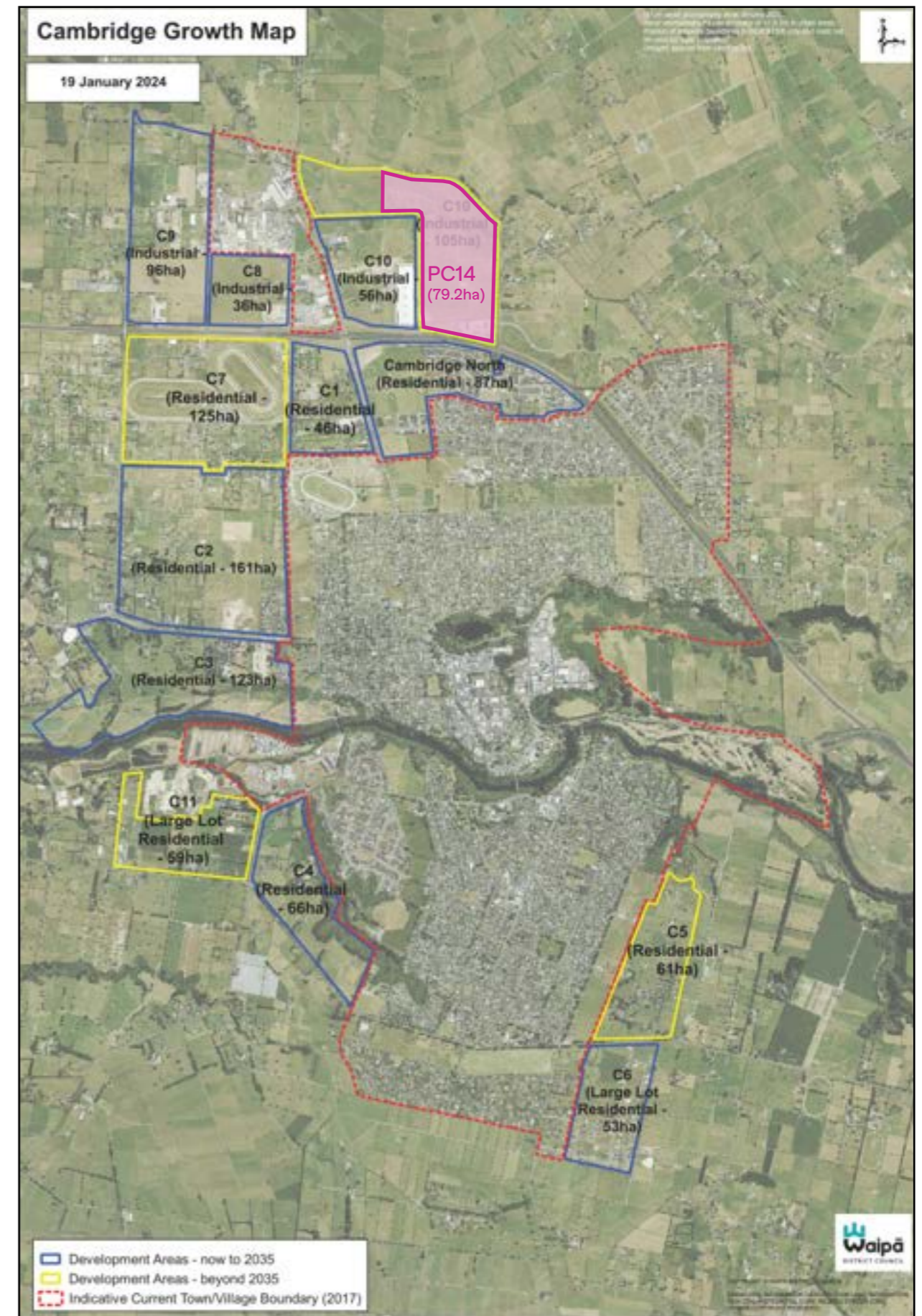


Figure 1 - Cambridge Growth Map from Waipā District Plan with PC14 area identified in pink

2.0 Methodology

The scope of this assessment is to review the landscape and visual effects on the Mangaone Precinct and surrounding landscape as a result of the plan change request and the development it facilitates, with particular focus on the landscape effects resulting from the Structure Plan and provisions for the Mangaone Precinct Structure Plan Area. The structure plan and plan change provisions for the Mangaone Precinct Structure Plan Area were developed in a wider consultancy group which included the author. The goal of this assessment is to test the landscape effects of the Mangaone Precinct Structure Plan Area proposal to confirm they are appropriate and to ensure no further recommendations are required.

Any additional recommendations considered appropriate will be listed at the end of this report.

2.1 Te Tangi a te Manu

This report follows the concepts and principles outlined in 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022. The methodology is tailored specifically to this assessment, taking particular regard to the proposal, context and relevant statutory provisions.

The rating system has been adopted from Section 6.21 of this document as a guide. The recommended rating scale that has been adopted is shown below:

VERY LOW	LOW	LOW-MOD	MODERATE	MOD-HIGH	HIGH	VERY HIGH
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Interpretations of this rating scale can be found in Section 5.2 of this report, and the reasons for the conclusions drawn are described where an assessment is stated.

It should be noted that this application type does not require the application of comparisons with the terms 'minor', 'less than minor', 'no more than minor' and 'significant'. The rating scale that is used in this report is a scale of magnitude rather than an assessment of whether effects are considered minor (or otherwise). However, for greater understanding the general comparisons between the 7-point rating scale and these terms are illustrated below², with an understanding that there are different interpretations within the profession as to where the boundaries of such categories precisely fall³.

LESS THAN MINOR			MINOR		MORE THAN MINOR		SIGNIFICANT
VERY LOW	LOW	LOW-MOD	MODERATE	MOD-HIGH	HIGH	VERY HIGH	

2.2 Desktop study

The following information was reviewed and considered as part of a desktop study during the appraisal process:

- Google maps aerials and street view
- Topographical maps and surveyed contour information
- Cadastral maps
- Waipā District Plan (including but not limited to Sections 4, 7 & 14, Appendix S20 - Bardowie Industrial Precinct Structure Plan and Urban Design and Landscape Guidelines, Appendix

1 Section 6.38, 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022

2 Page 151, 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022

3 Section 6.40, 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022

S5 - Hautapu Industrial Structure Plan and Landscape Guidelines and Appendix S1 - Future Growth Cells)

- Waipā 2050 District Growth Strategy
- Bardowie Industrial Precinct S42A Hearing Report, 5 November 2018
- Draft Structure Plan and Design Guidelines for the Mangaone Precinct Structure Plan Area

2.3 Mangaone Precinct area visits

After a desktop study was undertaken, the features within the Mangaone Precinct and its existing environment were inspected, along with its greater surrounds. This was undertaken by a NZILA Registered Landscape Architect on 31st May 2023, and again on 14th June 2023. Access to private property other than the land owned by Fonterra was not available, therefore the review relevant to the Mangaone Precinct surrounds was undertaken from public viewpoints, which also represent likely views available to residents in those locations. A 50mm camera lens at 1.6m height was used for all photographs taken.

2.4 Consultants and Engagement

The following consultant reports have been reviewed as part of this assessment:

- Archaeological Assessment by Sian Keith Archaeology Ltd
- Ecology Values and Effects Assessment by RMA Ecology
- Stormwater Management Plan by Harrison Grierson
- Urban Design Statement by Harrison Grierson
- Integrated Transport Assessment by Stantec New Zealand
- Cultural Impact Assessment by Ngāti Hauā Iwi Trust and Ngāti Korokī Kahukura

Collaboration with consultants was undertaken regularly so that robust discussions could be undertaken on intertwined issues.

Ngāti Korokī Kahukura and Ngāti Hauā Iwi Trust are mana whenua of the Cambridge area and hold kaitiakitanga (guardianship) over the Mangaone Precinct⁴. The applicant has engaged, and members of the project team have been involved with mana whenua at an early stage of the project; and it has been identified that continued consultation will be necessary beyond the proposed plan change. Issues and recommendations identified both within the Cultural Impact Assessment, and through consultation, have been considered and folded into the proposed plan change application's structure plan, provisions and Design Guidelines where possible.

Consultation with neighbouring property owners adjoining the Mangaone Precinct has been undertaken directly by the applicant with the goal of creating a proposal that is sensitive to the interfaces with these properties. Particular focus was given to the Swayne Road interface, as it was identified through this assessment and in direct conversations that this was a key area of sensitivity.

In addition to the applicant and consultant team's engagement, the following efforts have been undertaken to gain further understanding of the values of mana whenua and neighbouring property owners:

- Research into the history of Cambridge with Te Ara online.
- Te Ara Wai Journeys online tour and interviews with local people - both mana whenua and european.
- Review of the following management plans:
 - Ngāti Hauā Environmental Management Plan
 - Waikato Tainui Environmental Plan Tai Tumu, Tai Pari, Tai Ao
 - Te Ture Whaimana o te Awa o Waikato

4 Section 3, Page 5, Cultural Impact Assessment by Te Hira Consultants Ltd

3.0

Relevant statutory provisions

Relevant statutory documents for the Mangaone Precinct that this assessment takes into account are listed as follows:

- Resource Management Act 1991
- National Policy Statement for Freshwater Management
- National Policy Statement for Indigenous Biodiversity
- Waikato Regional Policy Statement
- Waipā District Plan

3.1 The Waipā District Plan

3.1.1 Future Growth Cell C10

Waipā District Plan identifies the Mangaone Precinct as part of 'Growth Cell C10' in 'Appendix S1 - Future Growth Cells'. The Mangaone Precinct is identified for industrial development which is anticipated to be carried out beyond 2035. 56.7ha of the C10 growth cell area has already been changed to 'Industrial' (with an associated structure plan) which was approved through a private plan change process (PC11). This area is referred to as the 'Bardowie Industrial Precinct'.

The proposed landscape and visual effects of rezoning the Mangaone Precinct are assessed with the understanding that future zone changes that facilitate industrial development are anticipated within the Waipā District Plan.

3.1.2 Objectives for existing Rural Zone

The Waipā District Plan Section 4 outlines the objectives, policies and rules for Rural zones. The Mangaone Precinct is currently exhibiting these objectives and policies with its existing Rural zoning and is notably consistent with characters 'a' to 'd' as outlined in Section 4.1.12. Section 4.2.17 highlights that the character of the Rural environment in Waipā is:

"dominated by open space, flat to rolling terrain, remnants of indigenous vegetation and views to the volcanic cones of Maungatautari, Pirongia and Kakepuku",

and that development and subdivision can erode this character. This is further described with Objective 4.3.7 which is to maintain Rural character and amenity.

It is accepted that with the Mangaone Precinct being rezoned to Industrial, development and subdivision will be enabled that will cause the removal of Rural character. It is also acknowledged that land surrounding the Mangaone Precinct to the north, east and west will remain in Rural zoning; and so the values and character associated with these areas and how they interface with the Mangaone Precinct is important.

Another Rural zone Objective relevant to the Mangaone Precinct is:

- 4.3.1 To maintain or enhance the inherent life supporting capacity, health and well-being of rural land, ecosystems, soil and water resources.

Notably, the sub-topics for the above Objective focus on Policies that avoid adverse effects on water catchment areas and riparian ecosystems that development, subdivision or activities might create. The Mangaone Stream runs through the Mangaone Precinct, and the proposed plan change endeavours to uphold the health and well-being of the stream and its ecosystems regardless of the change in activities enabled.

3.1.3 Objectives for Industrial Zone

The Waipā District Plan Section 7 outlines the Objectives and Rules for Industrial zones. These have been taken into account, along with the development the associated rules will enable, when assessing the landscape effects of the Mangaone Precinct on its surrounding environment.

It is acknowledged in Section 7 that Industrial areas have a different level of effect than other zones due to their nature, which includes higher levels of noise, site coverage and a reduced amount of on-site amenity. Therefore, a higher level of amenity is anticipated where these sites adjoin strategic roads and other zones⁵.

From a resource management perspective, the high level of effects industrial activities can have are noted as incompatible with other activities like residential⁶. The Mangaone Precinct considers and allows for these Objectives with refined plan change provisions to ensure a high quality outcome.

Objectives:

- 7.3.2.1 To provide a degree of amenity for the zone as a whole by ensuring that road boundaries are landscaped.
- 7.3.2.2 To provide for security fencing in a manner that does not adversely affect the anticipated level of amenity as viewed from roads.
- 7.3.3 To manage actual or potential adverse effects on people, buildings, and activities beyond the Industrial Zone.
- 7.3.4 (c) Avoids or mitigates any actual or potential adverse effects on surrounding rural properties and public spaces, including the Hautapu Cemetery.

3.1.4 Heritage Buildings

The Mangaone Precinct contains 'H139 - Swaynes House', which is located close to the eastern boundary with Swayne Road. The property comprises a 1914 Concrete Roughbase bungalow that has been allocated Category C protection. Category C heritage items are classified as having "Community Significance - Local significance heritage items are of local importance, contribute to the community's history and are noteworthy as community heritage places"⁷.

Any development enabled by the Mangaone Precinct which requires a detailed response to Swaynes House will be addressed at the resource consent stage for that property. However, this assessment still considers the landscape effects the Mangaone Precinct will have on this building and makes some recommendations in Section 7.

3.1.5 Natural and Cultural Landscapes

While the Mangaone Precinct does not contain any landscapes or features that are classified as 'Natural' or 'Cultural' in the Waipā District Plan, it is noted that landscapes with these designations are visible from the Mangaone Precinct on the horizon.

It is also noted that the Mangaone Stream has significant cultural values for mana whenua⁸, which is discussed further in section 4.3 of this report.

5 Waipā District Plan Section 7.1.4
6 Waipā District Plan Section 7.2.2
7 Waipā District Plan Appendix N1
8 Section 3.3:II, Page 8 Cultural Impact Assessment by Te Hira Consultants Ltd

4.0

Existing landscape

4.1 Mangaone Precinct location

The Mangaone Precinct is a total of 79.2ha in size and located on the northern outskirts of Cambridge township in the Waipā District. Waikato River runs through Cambridge township approximately 3.3km to the south of the PC14 area. Tamahere, Hamilton and Hamilton Airport are 116km or further to the north-west. The township of Karapiro is about 8.6km to the south-east, with Maungatautiri more to the south. Maungakawa Scenic Reserve and hills are approximately 5.4km to the west.

The Mangaone Precinct has Rural zoned land on all sides except for the 'Bardowie Industrial Precinct' to the west, which is zoned Industrial. It is bordered by Zig Zag Road to the north and Swayne Road to the east. The Waikato Expressway is approximately 115m to the south, separating the Mangaone Precinct from Residential zoning further to the south beyond.



Figure 2 - Location plan (Waipā District Plan)

4.2 Surrounding character and values (Physical, Associative and Perceptual)

Te Tangi a te Manu describes the current professional practice of Landscape Architecture as conceptualising landscape as three overlapping dimensions: physical, associative and perceptual⁹. In recognition that these factors are intrinsically linked, there is no attempt to separate them. For the purposes of this assessment, the understanding of the wider surrounding landscape character of Cambridge and how it is evolving must be understood in order to establish the values associated with the Mangaone Precinct, which are discussed separately in Section 4.3.

⁹ Section 4.10, 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022

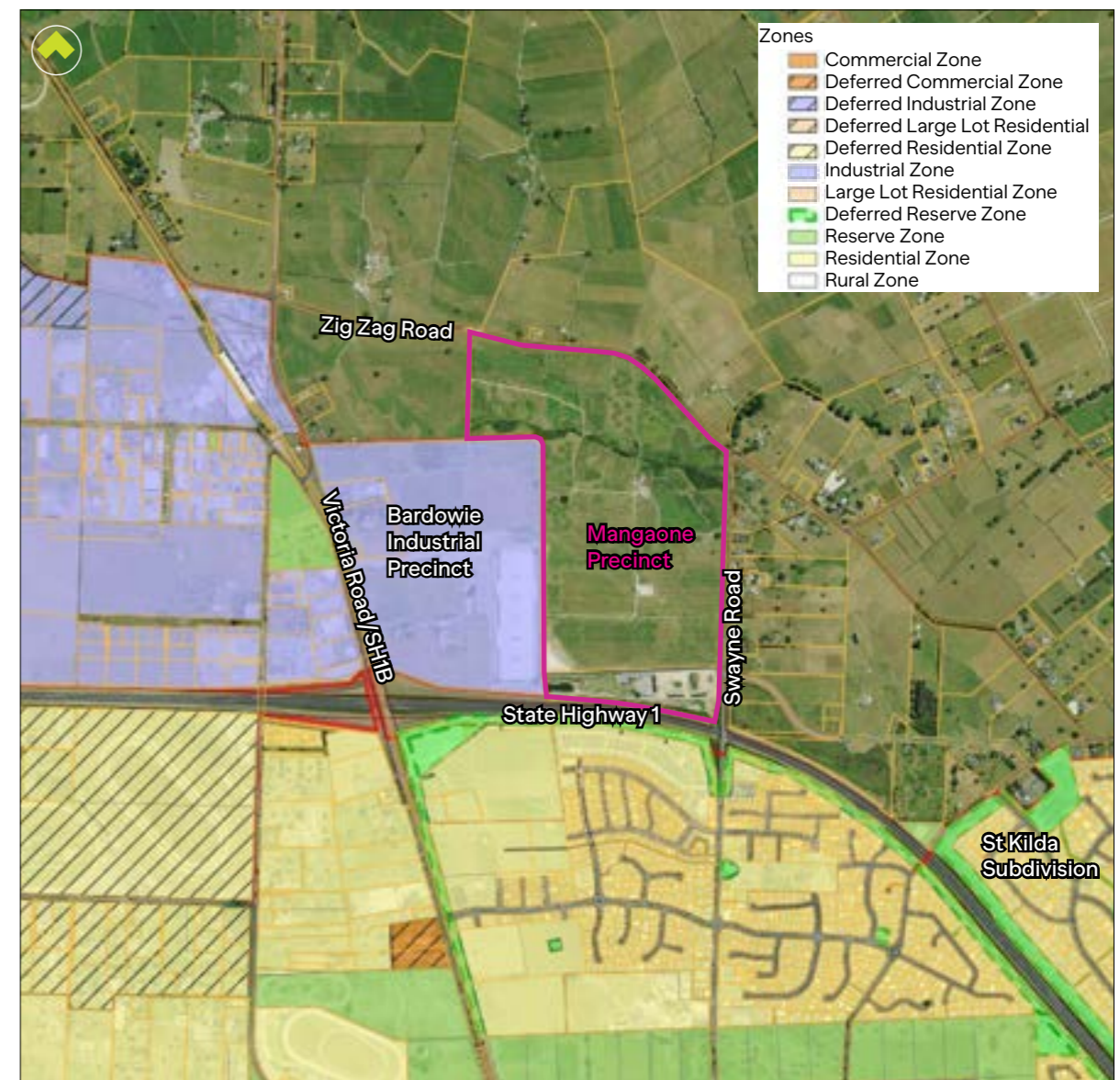


Figure 3 - Waipā District Plan Zoning Map with the Mangaone Precinct identified in pink

4.2.1 Landforms, Vegetation and Ecology

The Mangaone Precinct is located within the Waikato Basin, which is surrounded by hills formed by volcanic and faulting activities along with erosion from the Waikato River¹⁰. Within the basin, the landform is characterised by large relatively flat extents of farmland and gentle rolling hills. Cambridge straddles the Waikato River, and sits in an area of relatively flat topography which includes some tributaries that feed into the Waikato River.

The immediate Waikato area site character is distinguished by gentle low rolling hills and deep gully systems that follow the Waikato River path through the plains. Areas of native shrubs are concentrated around regenerating areas in close proximity to the Waikato River and gully system to the south. Before the land was developed for farming practices by Māori and Europeans, the typical forest type for the area was Kahikatea dominated virgin bush¹¹.

The Pirongia forest park mountain range can be seen in the distance on the horizon behind the rolling rural land to the south-west. The hills of Te Miro and Maungakawa Scenic Reserve can be seen on the horizon to the east. Maungatautari is on the horizon to the south-east. Views of and access to these mountains on the horizon is an identity that is specific to mana whenua¹² and inhabitants of the Cambridge area, particularly in the northern rural parts.

There is also a perceptual and physical connection with the Waikato River and its tributaries, which was used as a main trading route for mana whenua and was a central hub of trade¹³.

The Waikato River, its tributaries and the significant maunga in the area are all home to native species which are precious to both mana whenua and the local community. Pockets of protected or regenerating native bush are valued for the homes they provide. One species that is well known in the Cambridge region is the Pekapeka¹⁴. This protected native bat is common to areas within the Waikato, and often has foraging patterns around mature vegetation - particularly along riparian corridors. Continued protection of the Pekapeka as well as the natural landscape character within Waikato is important to mana whenua as well as the wider community.

4.2.2 Farming and Rural Character

European settlers were allocated land, where they removed native bush to create pasture for dairy farming⁹. The Anchor farm was originally founded in Cambridge at Pukekura¹⁵, and through this brand and individuals, dairy farming became an integral part of the identity of the Waikato and also for Aotearoa internationally.

Along with dairy farming came horse breeding, and Cambridge is also well known as the 'Equine Capital of New Zealand'¹⁶ with some of the southern hemisphere's top thoroughbred stables¹⁷. Many smaller farms have horses, and there is a strong identity with breeding and thoroughbred racing at an international level. Rural roads often have signs to watch out for riders, and seeing people riding horses is part of the rural character of Cambridge.

In today's landscape, the surrounding character of Cambridge outskirts is consistent with this European rural development and is a notable identity for the region. It consists of primarily flat pastured or crop paddocks with gently rolling topography adjacent to streams and other tributaries which flow into the Waikato River, some of which are being restored with native vegetation. Stands of mature exotic deciduous trees can be found in paddocks to provide shade for stock, along with small pockets of mixed native shrubs. Shelter belts are sometimes visible, separating paddocks or

small orchards with tall rows of primarily exotic trees. The edges of roads have wide pasture style berms ranging between 4-6m which often include ditches for drainage. Most road edges have farm-style post and rail or post and wire fencelines, and some have exotic deciduous shrub borders approximately 2m high behind. Dwellings are usually one storey, large, with driveways and internal lot roads consisting of gravel and less often concrete. Large distances of rural farmland is typically noted between dwellings, providing open views of large stretches of pasture.

Interwoven into the rural landscape are allowances for infrastructure such as the National Power Grid, and the State Highways between towns. It is common to see pylons that support the National Grid in the middle of paddocks, as it is to experience a journey on a State Highway in conjunction to the experience of a rural character environment. However, these can also be linked with urban character values as they link power supply and access to larger towns, and enable those towns to grow and develop.

This rural character style is typical of the Mangaone Precinct and areas directly adjacent to it, particularly on Zig Zag Road.

While zoned Rural, the properties on the eastern side of Swayne Road have the perception of a character more consistent with a Large Lot Residential zone. Dwellings are closer to the road compared to the majority of rural areas nearby, and rural blocks stretch behind some lots instead of between. Lots 174-190 in particular have approximately 15-30m distance between buildings, which is a lot less than the average rural property. Their high amenity style hedging and fencing combined with concrete driveways and proximity to the road contributes to the impression of a more residential style character. This has a particular impact to travellers as they experience the street when moving across SH1 into residential development to the south, or when walking/cycling from the nearby St Kilda Structure Plan area, and it is only the open nature of the Mangaone Precinct which maintains a more traditional rural character along this section of the street.



Figure 4 - Typical rural character found in Cambridge (Zig Zag Road east)



Figure 5 - Rural dwellings along the eastern side of Swayne Road

10 <https://teara.govt.nz/en/waikato-region/page-2>

11 <https://teara.govt.nz/en/photograph/27058/kahikatea-grove>

12 Page 20, Cultural Impact Assessment by Te Hira Consultants Ltd

13 <https://tearawai.nz/tour#/tour/location-riverbank.html>

14 3.2.4, Page 20, Ecology Values and Effects Assessment by RMA Ecology

15 <https://tearawai.nz/tour#/tour/location-anchor-dairy-factory.html>

16 <https://www.cambridge.co.nz/about-cambridge/overview>

17 https://en.wikipedia.org/wiki/Waikato_Plains

4.2.3 Industrial Developments

The northern outskirts of Cambridge have developed to include industrial and commercial land uses that support the dairy industry. These areas are separated from the Cambridge residential zones and township by State Highway 1. They generally present as dairy factories with a variety of buildings and storage tanks up to 20m tall, tractor sales, and industry to support the health and wellbeing of stock such as feed and fertiliser stockists and manufacturers. With the growth of residential development in other parts of Cambridge, these established industrial areas have recently attracted additional businesses focused on providing for house construction and other associated income streams.

Waipā District Council has identified areas of Rural land to rezone to Industrial land in 'Appendix S1 - Future Growth Cells' of the Waipā District Plan to accommodate this expansion in dedicated areas. Part of this expansion is the Bardowie Industrial Precinct, which was developed early as a result of an earlier Private Plan Change process (Plan Change 11 (PC11) to the Waipā District Plan). The Bardowie Industrial Precinct introduces a new character style which is more urban in form and with a higher amenity compared to the previous existing Industrial zones in Cambridge.

It currently has a substantial large format warehouse-style building with modern cladding and some articulation to the face which is approximately 450m long and 140m at its widest point, and approximately 12m tall¹⁸. Finishes include colour steel, glass and concrete in black, white and light greys. Carparking and roads surround the building and signage is at a minimum. Fencing is either chain link security fences with barb wire tops, or black steel fins, all 2m tall minimum.

Landscaping of the Bardowie Industrial Precinct adjacent to the building is high amenity, with features such as large stormwater ponds and swales planted with native plants in an amenity pattern style rather than naturalistic. Closer to the building are high amenity paths and paving finishes, seating for staff in timber, natural stone nib walls, covered bike racks and electric vehicle charging. Surrounding landscape consists of manicured lawns, high amenity groundcovers/low shrubs and specimen trees - some of which bear fruit. Apart from the loading bay to the south of the building, truck and forklift movements are low. The majority of the building presents more in line with a commercial building in its character.

The balance of the Bardowie Industrial Precinct is largely undeveloped, maintaining a pastoral style which is typical of the surrounding landscape to the north of the Mangaone Precinct. While it presents as rural in character, it is noted that the Bardowie Industrial Precinct Structure Plan in

¹⁸ As estimated by reviewing photos of the building and using known elements such as containers adjacent to extrapolate a height.



Figure 6 - APL Building and surrounds character in Bardowie Industrial Precinct



Figure 7 - Typical residential character in Cambridge new development areas

Appendix S20 of the Waipā District Plan identifies the site to be developed in full to a similar amenity level as existing development, but with a slightly finer grain in building sizes. The Mangaone Precinct seeks to enable land to be developed in a similar style to this.

The high amenity of the development of the Bardowie Industrial Precinct introduces a character to the northern parts of Cambridge that is more urban in its nature. This perception of an increase in urban character within Cambridge is reinforced with new areas of residential subdivision.

4.2.4 A Growing Town

New areas of residential subdivision can be found on the edges of Cambridge focused to the north and south, primarily with State Highway 1 as the boundary to urban expansion, except for the St Kilda Structure Plan area which is to the north-east.

These new areas have a high amenity residential character suitable for an urban environment, with large single storey homes, kerbed streets with extensive footpaths and cycling facilities. Stormwater management plays an important part in these developments, with main roads containing central swales that combine planting with drainage as well as stormwater ponds that double as public parks. It is common to see people using the walking and cycling networks these new developments have created, and it was noted during site visits that people are seen walking from the St Kilda Structure Plan area and through Appleby Road near the Mangaone Precinct. With the introduction of these character types, along with the increase in urban style activities within the city centre, Cambridge presents itself as a growing regional town.

As part of this development, Cambridge has also become known for its cycling community, and is home to one of two of New Zealand's only international standard velodromes¹⁹. Cycling is part of Cambridge's character both in urban and rural zones, and it is common to find cycleways or people using roads to continue their cycling journey throughout.

All these overlapping characters point to a vibrant town that is growing. As Cambridge develops, the overlapping characters have points of transition from purely rural to a mixture of urban development. The Mangaone Precinct is at an intersection point of this type of change, which is discussed in more detail in the next section.

¹⁹ <https://teara.govt.nz/en/interactive/40233/velodromes-in-new-zealand>

4.3 Mangaone Precinct character and values (Physical, Associative and Perceptual)

4.3.1 Natural and Cultural Character Values

The Mangaone Precinct is primarily flat pasture with gentle rolling contours directly around the Mangaone Stream, which runs through the northern third towards the west. The Maungakawa Scenic Reserve hills can be seen to the east of the Mangaone Precinct, and Maungatautiri to the south. Pirongia can be seen to the south-west on the distant horizon. The visual connection to these mountains and the Mangaone Stream is an important part of the Mangaone Precinct's character and its wider identity as part of the Waikato Basin, and as part of mana whenua's whakapapa²⁰.

Archaeological assessment identifies that there are no known Māori archaeological sites directly in the project footprint; but that there are likely archaeological deposits within the project associated with both Māori and European horticultural practices, as well as some building remnants from European dwellings²¹.

The Mangaone Stream and associated drainage patterns, natural wetlands and planting are a distinct natural character for the Mangaone Precinct. The stream is linked to the Waikato River through Mangaharakeke Stream²², and it holds a peripheral perceptual connection as a tributary by its presence as a waterway within the Waikato. Streams and access to water sources are important to mana whenua not only as a water source for drinking, but a source of kai from the water, and water suitable for healing practices²³. The health and wellbeing of water resources and whenua is linked to the health of mana whenua²⁴.

Vegetation within the Mangaone Precinct is primarily limited to around the Mangaone Stream, or as exotic shrub borders intermittently along road boundary fencelines. Around the stream and natural wetland margins it consists of native shrubs and trees and provides a character specific to the stream running through the Mangaone Precinct. Planting appears to be approximately 5 years old as a minimum in these areas, with some trees and large stretches of shrubs notably more mature directly on the stream edges. No notable native specimen trees have been identified in the Mangaone Precinct within the Waipā District Plan, however there are species considered valuable for retention and enhancement around the Mangaone Stream which have been included in the extents of the 'Mangaone Stream Reserve' in the Mangaone Precinct Structure Plan.

The Ecological Report by RMA Ecology identified low levels of activity for Long-tailed bats/Pekapeka within the PC14 area, suggesting they are using the area as foraging or commuting habitat. As part of the report findings, an area was identified as a 'High value bat habitat' which recommended a set-back for lighting of 25m. The 'Mangaone Stream Reserve' identified on the Mangaone Precinct Structure Plan includes this 'High value bat habitat' area and the 25m setback for lighting to ensure no development occurs within this setback. Protection of the Pekapeka and other animals that live in the native shrub and stream environment are important to mana whenua, and the enhancement and protection of them aligns with these values.

Early mana whenua engagement was carried out as part of developing the Mangaone Precinct Structure Plan and plan change provisions. This engagement identified the Mangaone Precinct holds significant cultural and heritage value for mana whenua²⁵. The Mangaone Stream and its connections to the Waikato River were identified, highlighting the importance of natural character values being retained on the Mangaone Precinct, restorative planting where possible, as well as a careful and considered approach to stormwater management. In addition to the areas required to protect and enhance the Pekapeka and the Mangaone Stream environment, the 'Mangaone Stream Reserve' was further extended in the Mangaone Precinct Structure Plan to include an allowance for Stormwater Management Device areas. The areas required for these were calculated as part of the Mangaone Precinct Stormwater Management Plan, which assesses the future stormwater management requirements of the Mangaone Precinct Structure Plan Area.



Figure 9 - Views of Maungakawa Scenic Reserve hills from the Mangaone Precinct



Figure 10 - Vegetation along the edge of the Mangaone Stream

20 Waipā District Plan, N9.6.1, N9.6.2, N9.6.26

21 Archaeological assessment by Sian Keith Archaeology Ltd

22 Page 4, Cultural Impact Assessment by Te Hira Consultants Ltd

23 Section 3.3:X, Page 8, Cultural Impact Assessment by Te Hira Consultants Ltd

24 Section 3.3:I, Page 8, Cultural Impact Assessment by Te Hira Consultants Ltd

25 Section 3.3:II, Page 8 Cultural Impact Assessment by Te Hira Consultants Ltd

4.3.2 Rural Character Values on the fringe of an Industrial Character Landscape

The Mangaone Precinct Structure Plan Area is primarily identified as a functioning pasture farm and used for grazing cows. Its land-use and character are consistent with the rural character of the surrounding landscape particularly to the north of the Mangaone Precinct. When travelling along Zig Zag Road the Mangaone Precinct is experienced as an extension of the rural outskirts of Cambridge rather than other land uses.

Along Swayne Road, the Mangaone Precinct Structure Plan Area also presents a character consistent with rural grazing pasture landscapes around Cambridge. However, the proximity of the APL building on the adjacent Bardowie Industrial Precinct, and the temporary access for heavy vehicles opposite Appleby Road, along with distant glimpses of the Fonterra Manufacturing Site add a perception of a space on the fringes of an Industrial zone.

There are three structures within the Mangaone Precinct Structure Plan Area - two ancillary farm buildings, and one old farm house. The farm house is listed as a Category C Heritage Building in the Waipā District Plan named 'Swaynes House'. This building is suspected to be an example of a conversion by Cambridge Architect James Douce²⁶, and there is no evidence in the Waipā District Plan that its categorisation is dependent on its location or surrounding environment.

Swaynes House is a one storey 1900's villa concrete conversion painted cream with a pitched green corrugated iron roof. It is set well back from the road and accessed via a gravel driveway. Landscaping around it is consistent with adjacent pastures and there is no notable amenity beyond the house itself. To the passing eye, it appears consistent with an older style farm house typical of the wider Cambridge area, and adds to the rural character values associated with the Mangaone Precinct Structure Plan Area.

One of the ancillary farm buildings on the Mangaone Precinct Structure Plan Area, while specifically for farming practices, is tall and industrial in nature. This structure can be viewed as a very minor extension to the surrounding industrial character when viewed with larger existing industrial buildings in the background. It is noted this is a very minor shift in character, and the primary perceived character of the Mangaone Precinct remains rural.

There are two sets of power lines running across the PC14 Structure Plan Area. One is part of the national grid system, and consists of two pylons in the portion of the Mangaone Precinct Structure Plan Area north of Mangaone Stream. These are placed parallel with Zig Zag Road, approximately 60m offset from it. This line continues in a north-westerly direction into rural landscapes beyond the Mangaone Precinct on both sides, reinforcing its perception of a rural character - particularly in the northern section of the PC14 Structure Plan Area. The second set of power lines are local and smaller in scale, and run from Victoria Road through to Appleby Road in a north-west direction across the centre of the Mangaone Precinct Structure Plan Area. While also rural in nature, these lines draw a visual link to the Fonterra manufacturing site in the distance on Victoria Road, again bringing minor associations with industrial character to mind. While the national grid system lines will remain in the Mangaone Precinct, it is anticipated the smaller local lines will be undergrounded as part of development enabled by the proposed plan change.

While the Mangaone Precinct can be perceived as primarily rural in character, the overlaying identification as part of 'Growth Cell C10' in 'Appendix S1 - Future Growth Cells' indicates that change from rural to an industrial character is expected and anticipated. These plans create a perception of a character change occurring in the next 15 years that would remove open views and rural landscapes and would extend the character of the existing 'Bardowie Industrial Zone' into the Mangaone Precinct. The Waipā District Plan indicates the timeframe for this change is beyond 2035; PC14 seeks to rezone the land to 'Industrial' ahead of the 2035 timeline to develop the Mangaone Precinct Structure Plan Area sooner.

While it is noted that industrial development and activities are anticipated for the Mangaone Precinct, appropriate visual softening on the edges of any 'Industrial Zone' extension is important in order to be sensitive to existing rural properties, particularly those identified on Swayne and Zig Zag Roads. The establishment of appropriate interface treatments on boundaries as illustrated on the Mangaone Precinct Structure Plan meets the objectives of Section 7 in the Waipā District Plan. The provisions for the Mangaone Precinct Structure Plan Area give particular attention to these areas, ensuring that adequate screening will provide an appropriate transition between the character of zones. Details of where and how this is considered appropriate are discussed Section 4.4.

26 Correspondence with Jennifer M. Gainsford, author of 'Cemented in Time: Concrete Bungalows designed by Cambridge Architect James Thomas Douce'



Figure 11 - Temporary entry to APL building, APL building, Fonterra Manufacturing Site and low voltage power lines.

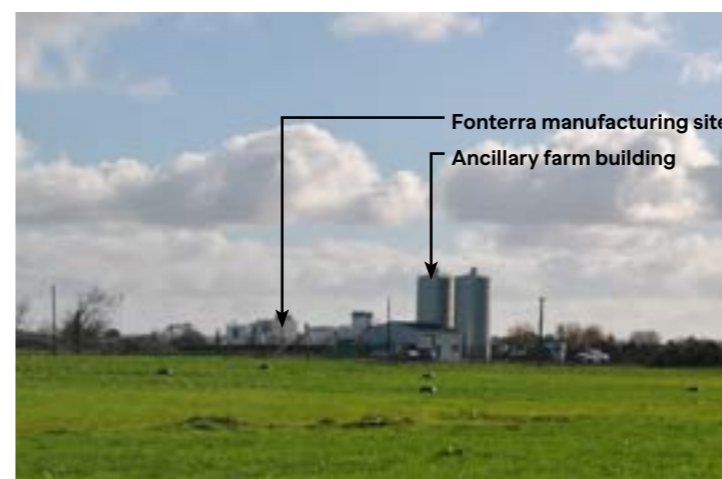


Figure 12 - Ancillary farm building with Fonterra Manufacturing Site behind.

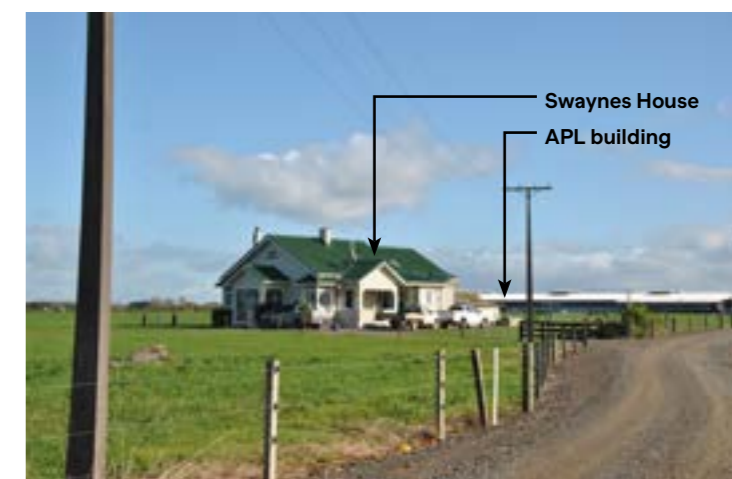


Figure 13 - Swaynes House with APL building behind.



Figure 14 - High voltage transmission pylon in the Mangaone Precinct linking to northern pylons. Views of Pirongia on the horizon.

4.4 Opportunities and Constraints

To ensure a comprehensive plan change process and structure plan which responds to the existing and future urban built form, key opportunities, challenges, and constraints were identified within technical assessments. The consultant team worked closely together to identify these issues, and the Harrison Grierson Urban Design Report also illustrates a summary of the key items for the Mangaone Precinct Structure Plan Area. Refer to Figure 15 on Page 10, which illustrates the existing opportunities and constraints within the Mangaone Precinct and its surrounds.

These elements of the Mangaone Precinct Structure Plan Area context are reflected and integrated with the proposed structure plan and intended outcomes of the Mangaone Precinct.

Summary of Landscape Constraints:

- The Mangaone Stream and subsequent riparian setback constrain developable area and separate the north and south sections of the plan change area. Large sections of flood plain and natural wetland are located along the edges of the stream further restricting developable land.
- The rural residential character of Swayne Road requires specific treatment. Through collaboration with Waipā District Council and review of community feedback, Swayne Road will not be upgraded and access to the Mangaone Precinct Structure Plan Area via Swayne Road will only facilitate light vehicle traffic. Landscaping features should also reflect the rural nature of the road and minimise shading or significant increases to vehicle traffic.
- Access to the south and west of the Mangaone Precinct Structure Plan Area, and the Bardowie (APL factory) site is restrictive. One possible connection point for a collector road has been identified within the Mangaone Precinct Structure Plan Area and must be provided.
- The land within the C10 Northern Block, northwest of the Mangaone Precinct Structure Plan Area, is not intended to be developed as part of Plan Change 14 and will remain as a rural property (with dwellings). While a future roading connection to this property is required, it is also necessary in the interim to provide some buffer planting to the rural edge of the Mangaone Precinct Structure Plan Area, along the western boundary.
- The Transportation/Traffic Report identifies that access to the Mangaone Precinct Structure Plan Area can be accommodated 100m to the north of the expressway on Swayne Road, rather than adopting or upgrading an intersection opposite Appleby Road. A private accessway is located near the southern portion of the Mangaone Precinct and connects APL's factory through 137 Swayne Road to Swayne Road. Any access to or upgrade of this into a public road has been ruled out by the landowner.
- A high voltage electricity transmission line alignment will require a 12m building setback and allow limited activities to occur beneath the lines. Associated pylons will require a 12m setback and require access to the pylon for maintenance.
- The heritage protected Swaynes House requires consideration around its demolition, relocation or protection. Landscaped buffers and building setbacks are recommended around Swaynes House if the building remains in its current location.
- A high value bat habitat area has been identified within the Mangaone Stream, and is recommended to have a 25m offset for light spill.
- An entry to the north of the Mangaone Precinct Structure Plan Area off Zig Zag Road requires upgrades to Zig Zag Road from the entry point back to State Highway 1B to accommodate the heavy vehicles that will use this route.

Summary of Landscape Opportunities:

- The riparian area identified along the Mangaone Stream offers significant natural, cultural and recreational amenity opportunities if it can be developed for public use. Pedestrian and cycle connections could be located along the riparian area and form a natural area that separates the north and south sections of the Mangaone Precinct Structure Plan Area. The ecological assessment (RMA Ecology) has confirmed that natural wetlands and flood plains in this area are suitable for enhancement through native planting, in addition to that which already exists on the Mangaone Precinct today.
- The stormwater investigation (Harrison Grierson) has identified that opportunities for stormwater basin locations along the stream interface could be identified to form a public reserve.
- There are three current stream crossing locations and one possible new stream crossing location which have been identified. These locations have been based on the topography, stream alignment and existing context. These four locations have been noted as the best possible locations for a proposed bridge, connecting the north and south sections of the Mangaone Precinct Structure Plan Area.
- Existing indigenous planting provides a valuable cultural and ecological environment, as well as landscape and visual amenity. This planting could be enhanced and expanded along the Mangaone Stream.
- A primary entrance/access location has been identified on the west boundary of the Mangaone Precinct Structure Plan Area to the Bardowie Industrial Precinct. While this does not align with the existing structure plan proposed for the Bardowie Plan Change, a collector road in this location is consistent with recent masterplan road alignments for the C10 Growth Cell.
- A connection into the Mangaone Precinct from Swayne Road at the southern part of the Mangaone Precinct Structure Plan Area would limit the number of vehicle movements along Swayne Road, thus preserving residential and public amenity. To further reduce traffic-related effects, this entrance could be designed to restrict heavy truck movements.
- Extension to the existing rural cycling network from Appleby Road could be obtained via Swayne Road, which serves as an informal cycle route. The riparian area would form a good recreational amenity location and connect through the Bardowie Industrial Precinct to State Highway 1B.
- Swaynes House could be upgraded to provide a commercial function within the industrial development, or could be relocated within the development and utilised to provide a hospitality function.

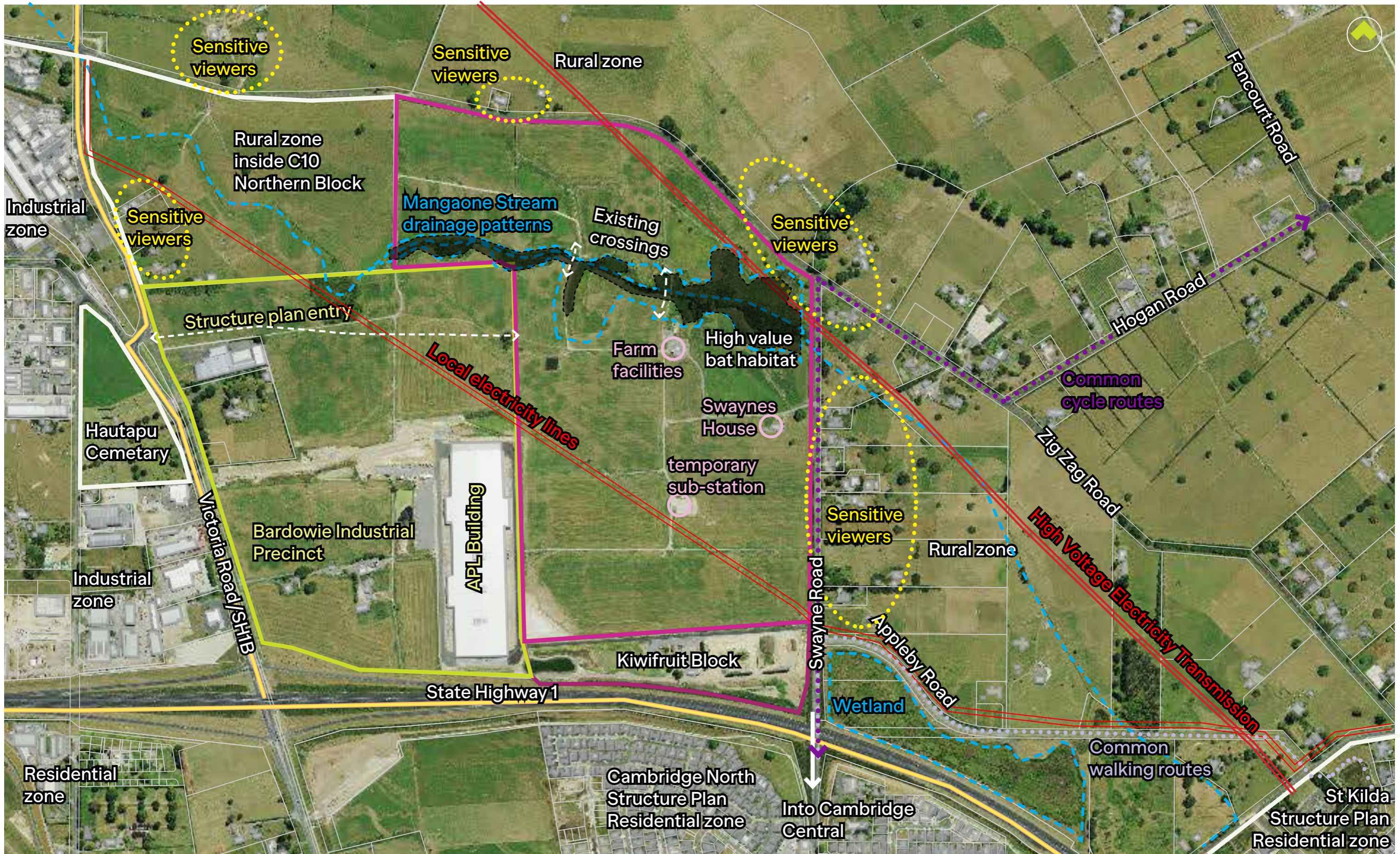


Figure 15 - PC14 area, opportunities and constraints

4.5 Proposed Plan Change

The Mangaone Precinct seeks to expand the existing Industrial zoned area located to the west of the Mangaone Precinct eastwards, which is referred to in the Waipā District Plan as the "Bardowie Industrial Precinct". The plan change proposal relates to land with a total area of approximately 79.2ha, which includes the Mangaone Precinct Structure Plan Area at 185-195 Swayne Road (71.4ha) and 137 Swayne Road (7.8ha).

Land at 137 Swayne Road contains stormwater devices that service the Bardowie Industrial Precinct to the west; it is understood that the undeveloped eastern portion of this property is the subject of a separate resource consent application process to establish industrial activities on the land.

The proposed Structure Plan therefore anticipates primarily industrial activities establishing within the Mangaone Precinct Structure Plan Area while providing for a small area of convenience retail services to establish within a 'Central Focal Area' overlay. This will serve immediate users within the industrial precinct.

Figure 16 illustrates the proposed Structure Plan for the Mangaone Precinct Structure Plan Area, and can also be found at full scale Appendix B. The development of the Mangaone Precinct Structure Plan and plan change provisions has considered the existing landscape of the Mangaone Precinct and its surrounds, its character values, and how to sensitively integrate the proposed development with the values of the local community and mana whenua.

The Mangaone Precinct proposes to make changes to the following sections of the Waipā District Plan:

- Planning maps
- Definitions
- Section 7 - Industrial Zone
- Section 15 - Infrastructure, Hazards, Development and Subdivision
- Section 16 - Transportation
- Section 21 - Assessment Criteria and Information Requirements
- New Appendix S27 - Mangaone Precinct Structure Plan Area
- Appendix S20 - Bardowie Industrial Precinct Structure Plan and Urban Design Guidelines

The development of the Mangaone Precinct Structure Plan and plan change provisions was worked through by the consultant team in collaboration with key stakeholders so that issues particular to landscape effects could be included as recommended.

Proposed Mangaone Precinct provisions specific to landscape effects are discussed and outlined as follows:

4.5.1 Natural, Cultural and Amenity Values

The Mangaone Stream runs east-west through the central-northern portion of the Mangaone Precinct Structure Plan Area, and the Structure Plan identifies this for protection and enhancement. The stream is a representation of rich historical and cultural importance of the area to mana whenua²⁷. The protection of the stream area is identified as the 'Mangaone Stream Reserve' on the Structure Plan and encompasses the stream's drainage patterns, adjacent wetlands, the 'High Value Bat Habitat' and its required offset, and allowances for the development of stormwater management ponds. Pedestrian and cycle paths are enabled through the Mangaone Stream to ensure amenity values are increased and opportunities for cultural expression can be interwoven. Cycle and pedestrian paths are enabled through the rest of the Mangaone Precinct Structure Plan Area through the existing provisions for connectivity within Chapter 7 in the Waipā District Plan.

Swaynes House within the Mangaone Precinct is another cultural aspect which must be considered as part of any future development.

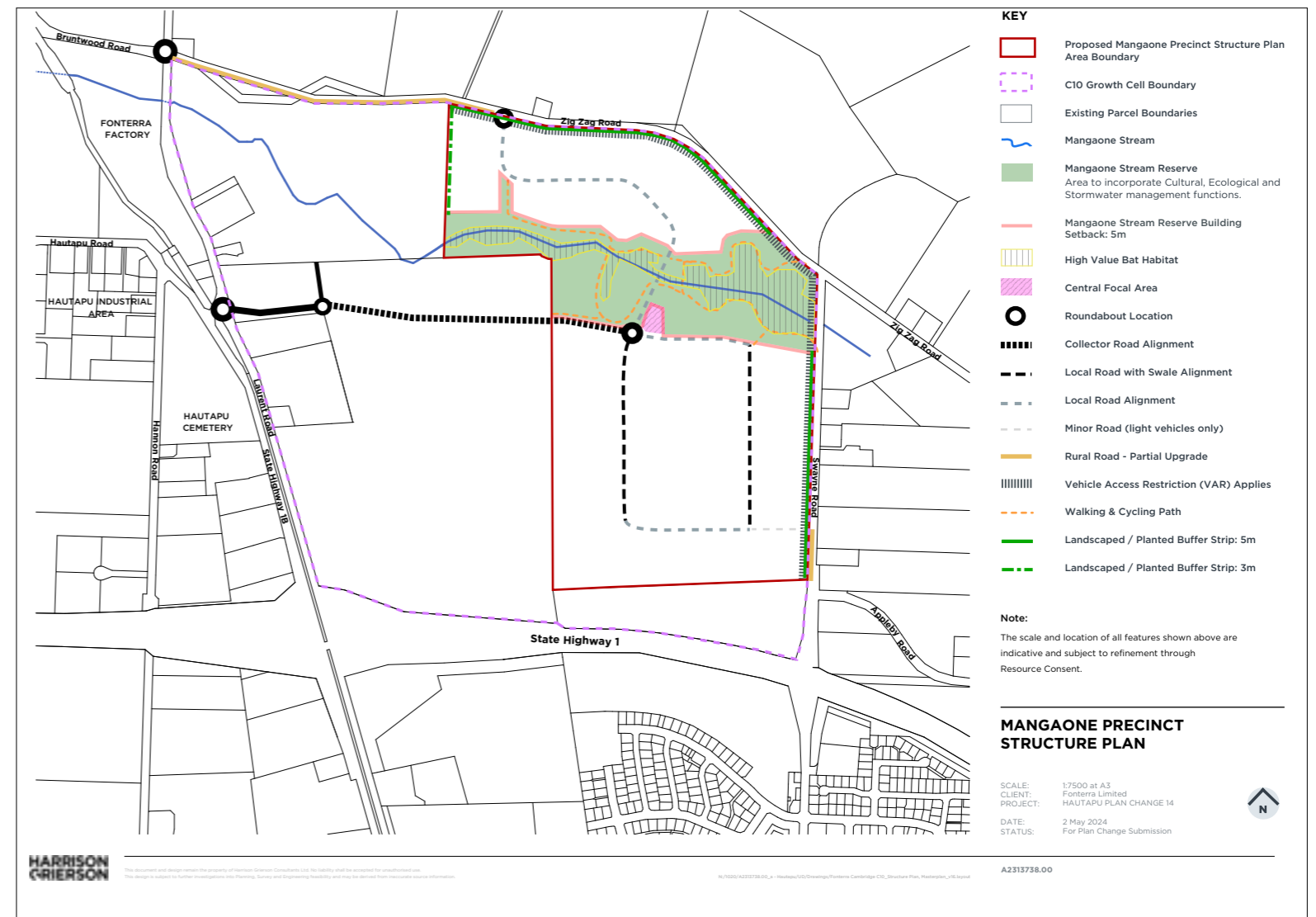


Figure 16 - Mangaone Precinct Structure Plan

The following sections of the Waipā District Plan have been proposed to be amended in relation to natural, cultural and amenity values:

Objectives

- 7.3.4h - Within the Mangaone Precinct Structure Plan Area, enable industrial development whilst protecting and enhancing the ecological values of the Mangaone Stream and natural wetlands.

Policies

- 7.3.4.11 - To maintain and enhance the cultural, ecological, and amenity values of the Mangaone Stream and its margins within or adjacent to industrial areas.

Rules

- 7.4.2.5A - Within the Mangaone Precinct Structure Plan Area, the minimum building setback from the perimeter of the Mangaone Stream Reserve shall be 5m.

This rule does not apply to roads and associated roading and/or stormwater infrastructure.

Activities that fail to comply with this rule will require a resource consent for a discretionary activity.”

- 7.4.2.42

a - Within the Mangaone Stream Reserve identified on the Mangaone Precinct Structure Plan artificial outdoor lighting, must:

i. Emit zero direct upward light.

ii. Be installed with the light emitting surface facing directly down and oriented away from the High Value Bat Habitat Area.

iii. Be white LED, with a maximum lighting intensity of 0.3 lux and a maximum colour temperature of 2,700K;

iv. In the case of exterior security lighting, be controlled by a motion sensor with a short duration timer (5 minutes).

b - Fixed artificial lighting shall not be located within a High Value Bat Habitat Area except where it is for the express purpose of providing lighting for roading or emergency works related to infrastructure operated by an entity that is defined as a lifeline utility under the Civil Defence Emergency Act 2002. The lighting must be white LED with a maximum colour temperature of 2700K, installed with the light emitting surface facing directly down, emit zero direct upward light and be mounted as low as practical.

- 7.4.2.41 - Activities that fail to comply with Rules 7.4.2.41 and 7.4.2.42 will require a resource consent for a discretionary activity.

- 15.4.2.91A - Any subdivision or development (as relevant) in the Mangaone Precinct Structure Plan Area shall ensure that:

d. The first subdivision consent application of the Mangaone Precinct for industrial purposes, shall include:

i. A Mangaone Stream Reserve Management Plan;

e. Any subdivision or development within 50m of Swayne House shall include an assessment of any effects on the heritage values of Swayne House along with any proposed mitigation measures.

f. The Mangaone Stream Reserve is vested in Waipā District Council as part of the first subdivision consent application.

Advice Note: As part of a reserves agreement (forming part of a Development Agreement under Rule 7.4.2.36) it is anticipated that Council will not become immediately responsible on vesting of land for the ongoing management and maintenance of the reserve and that there will be a transitioning period post vesting where the developer will remain responsible for the reserve and its associated features / infrastructure.

g. The Mangaone Stream Reserve is planted and fenced, and pedestrian / cycle paths are constructed as part of the first subdivision consent.

Activities which fail to comply with this rule will require resource consent for a non-complying activity.

Section 21.2.7.1 outlines clear assessment criteria to give clarity to what must be achieved in the management plan required in rule 15.4.2.91A.d.i:

a. Clarification (by way of mapping) as to the precise area and extent of the reserve area;

b. The location and extent of stormwater management ponds and devices (including outfalls) within the reserve area;

c. The route(s) of any roads passing through the reserve area including the point(s) of crossing of the Mangaone Stream;

d. The routes of cycle and/or pedestrian paths within the reserve area including the point(s) of any crossing(s) of the Mangaone Stream;

e. The proposed planting and other landscaping including a planting plan which specifies areas to be planted, species, quantities, and size at time of planting;

f. Measures (including planting and the nature of any street or on-site lighting) to protect the quality of the reserve area for bat habitat including controls on lighting while maintaining safety for people using roads and pathways within the reserve area;

g. A proposed maintenance regime in relation to all of the above (in accordance with a Reserves Agreement forming part of a Development Agreement under Rule 7.4.2.36) including:

i. The timing and frequency of maintenance inspections;

ii. Weed and pest management control;

iii. Replacement of dead or damaged plants;

iv. Maintenance of structures and facilities (excluding any roads); and

v. The recording of maintenance inspections.

h. The timing when the reserve area will be vested in Council and when management of the reserve will transfer to Council (in accordance with a Reserves Agreement forming part of a Development Agreement under Rule 7.4.2.36).

i. Planting / Fencing Implementation Programme.

In addition to the above, the Mangaone Stream Reserve Management Plan will be assessed in relation to the following assessment criteria in relation to the High Value Bat Habitat Area within the Mangaone Stream Reserve:

a. The extent to which lighting has been designed and located to maintain the function and quality of the High Value Bat Habitat Area.

b. The extent to which transport corridors are located and designed to avoid or minimise effects of roadside lights and vehicle headlights on the High Value Bat Habitat Area, and the bat population within that area. Where transport corridors are proposed within the Mangaone Stream Reserve, they should take the shortest route practicable (provided that is the route most likely to minimise impacts), be aligned and designed to minimise the number of existing trees that are required to be removed, ensure lighting is designed to ensure that the High Value Bat Habitat Area maintains its role and function, and is designed to enable bats to continue to access the wider corridor.

c. The extent to which bat-sensitive road lighting and planted buffer areas have been designed and will be implemented, where adjacent to or crossing the Mangaone Stream Reserve, to achieve the requirements of Rule 7.4.2.42. Bat-sensitive transport corridor lighting design should be prepared by a suitably qualified and experienced technical lighting specialist in collaboration with a suitably experienced bat ecologist and be sufficiently detailed to enable an assessment of the extent of effect on the High Value Bat Habitat Area and immediate environs.

d. The extent to which the Management Plan addresses any residual adverse effects on bats and achieves a net biodiversity gain, whether through direct actions or via a financial contribution to be used within publicly owned land for measures such as habitat enhancement and targeted predator control.

e. A summary of planned works including proposals for replacement planting of indigenous tree species to provide indigenous vegetation and habitat for indigenous fauna, permitting requirements, biosecurity protocols, timing of works, roles and responsibilities of parties, reporting requirements and any specific mitigation measures. The planned works should employ the Department of Conservation 'Protocols for Minimising the Risk of Felling Bat Roosts' where potential roosting trees for long-tailed bats are being removed and/or for trees with a diameter at breast height (DBH) of 15cm or greater for trees being removed as part of an application.

4.5.2 Building Setbacks and Heights

The Mangaone Precinct provisions will enable structures up to 20m high, set back by a minimum of 10m from external road boundaries with Swayne Road and Zig Zag Road. A further height control is created through a recession plane rising at a 30 degree angle taken from a point 3m above ground level at the boundary with Swayne Road and Zig Zag Road, which will ensure that buildings that are 20m tall must be set back further from the road boundary. A resource consent will be triggered if a building is proposed with a setback of less than 10m from an external road boundary and additional building height restrictions will apply. The height restriction rules also apply to any structures or products that might be in a rear yard of a lot.

The outcome of this requirement in conjunction with landscape buffers was tested by the consultant team as illustrated in Figure 18. Refer to Section 4.5.4 where landscape buffers are discussed in further detail.

The following sections of the Waipā District Plan have been proposed to be amended to ensure this outcome:

Policies

- 7.3.4.5 - To ensure protection of surrounding rural areas through applying specific performance standards (such as buffer areas and building setbacks) for perimeter sites within the following areas:
 - Hautapu Industrial Structure Plan Area;
 - Bardowie Industrial Precinct Structure Plan Area;
 - Mangaone Precinct Structure Plan Area (particularly along Zig Zag Road and Swayne Road)

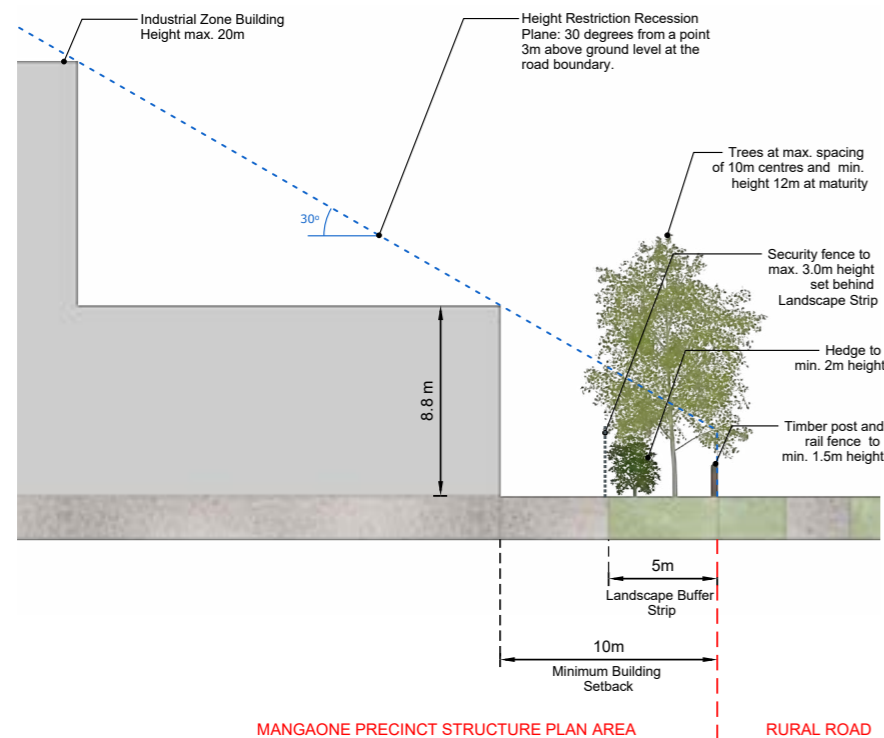


Figure 17 - Diagram which will form part of Rule 7.4.2.7A

Rules

- 7.4.2.1e - Mangaone Precinct Structure Plan Area - The minimum setback from the boundary of Swayne Road and Zig Zag Road or any segregation strips along those roads shall be 10m.

This rule does not apply to the location of tower signs permitted under Rule 7.4.2.31A within the Mangaone Precinct Structure Plan Area.

Advice Note: The provisions of this rule apply irrespective of the existence of any segregation strip.

- 7.4.2.7A - Within the Mangaone Precinct Structure Plan Area, where a site adjoins Swayne Road or Zig Zag Road no building, or stored materials shall penetrate through a recession plane at right angles to the road boundary inclined inwards and upwards at an angle of 30 degrees from 3m above ground level at the road boundary.

4.5.3 Colour Palettes

Building colours have been specified within the PC14 provisions as a dark colour palette rather than a light one. This was implemented through a combination of community feedback on the effects of the existing APL building and its reflectivity, as well as through design interrogation. Darker colours will ensure that buildings are visually recessive when viewed behind landscape buffer planting.

The following sections of the Waipā District Plan have been proposed to be amended to ensure this outcome:

Rules

- 7.4.2.17A - In the Mangaone Precinct Structure Plan Area building facades facing towards a road or the Mangaone Stream Reserve shall be clad or painted using materials and colour finishes that are in accordance with the following groups of the British Standard 5252 colour chart: A11, A13, A14, B25, B27, B29 and must also have low reflectivity, with maximum reflectance level of 70 percent.

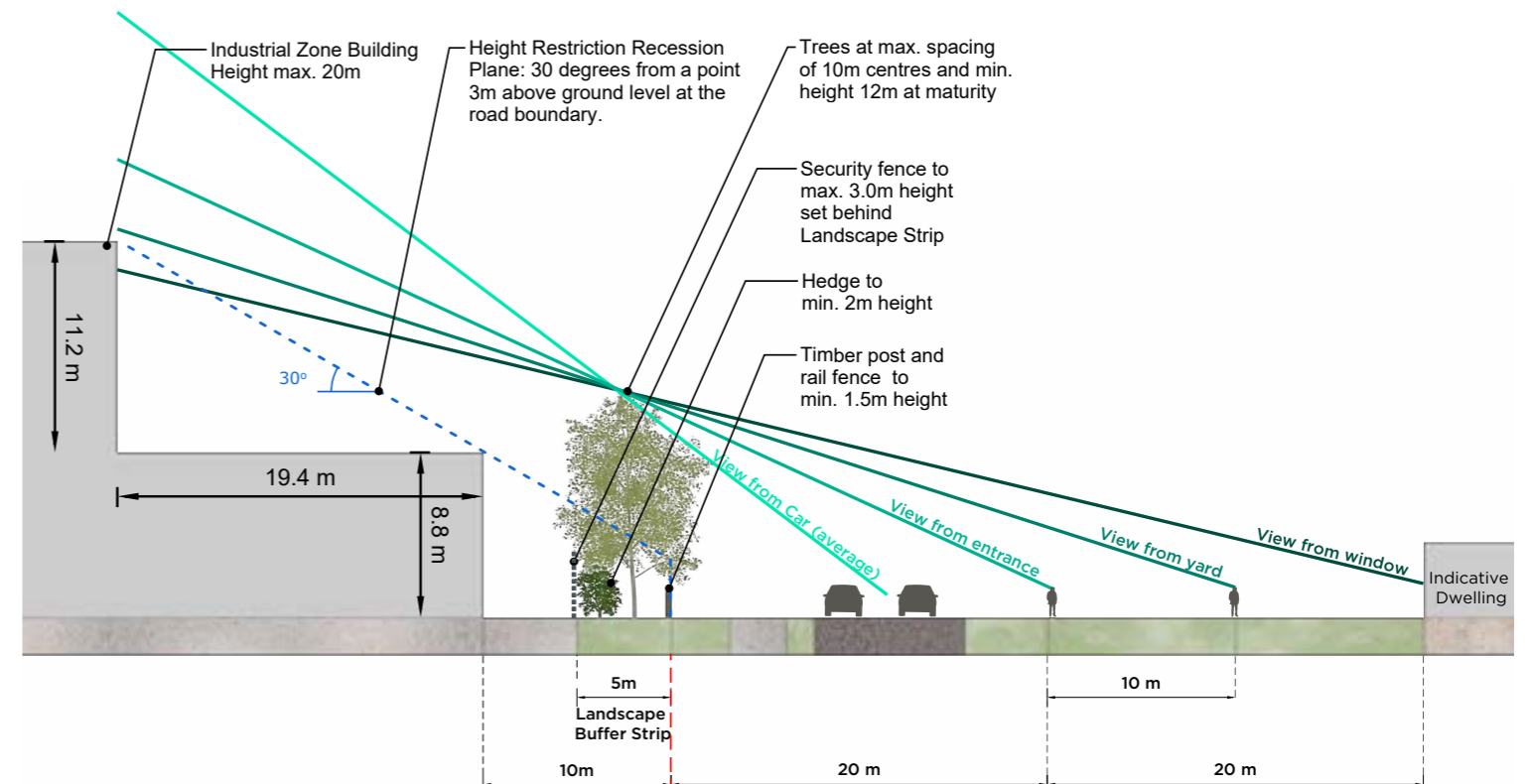


Figure 18 - Diagram illustrating tested sightlines above minimum tree height requirements.

4.5.4 Landscape Buffers, Fencing and Signage

Building setback and height rules were tested in conjunction with the landscape buffers and fencing proposed. This was to ensure the interface between the Mangaone Precinct Structure Plan Area achieves high visual amenity Objectives as listed in the Waipā District Plan²⁸ and is sensitive to the amenities of adjacent rural residents. This included reviewing what the minimum height of and distance between specimen trees should be, hedge heights and consideration of the recommended species that would provide screening but also maintain a character synonymous with Cambridge rural aesthetics.

Landscape buffers are also identified along the north-western boundary between the Mangaone Precinct Structure Plan Area and rural zoning for the balance of the C10 Northern Block.

It should be noted that no signage other than road directional signs is permitted along Swayne Road or Zig Zag Road, in order to further preserve the rural character interface.

The landscape buffers are important aspects of the provisions for the Mangaone Precinct Structure Plan Area response to site context. They will contribute alongside other bulk and location controls proposed at the industrial-rural interface of the Mangaone Precinct Structure Plan Area to ensure an appropriate transition of built form. The integration of the landscape buffers will soften the visual effects of industrial buildings at the interface with adjacent rural and rural-residential land and address concerns of sensitive viewers.

The following sections of the Waipā District Plan have been proposed to be amended to ensure this outcome:

Policies

- 7.3.4.5 - To ensure protection of surrounding rural areas through applying specific performance standards (such as buffer areas and building setbacks) for perimeter sites within the following areas:

- Hautapu Industrial Structure Plan Area;
- Bardowie Industrial Precinct Structure Plan Area;
- Mangaone Precinct Structure Plan Area (particularly along Zig Zag Road and Swayne Road)

Rules

- 7.4.2.15A - The following rules shall apply in respect of the Mangaone Precinct Structure Plan Area:

a. The location, extent, type and density of landscaping within the Landscape Buffer Strips and Landscape Amenity Strips for the Mangaone Precinct Structure Plan Area shall be as follows:

i. A Landscaped Buffer Strip of 5m (minimum depth) along any boundary with Swayne Road and Zig Zag Road except for points of roading connectivity and associated sight lines and the Mangaone Stream Reserve comprising of:

- A timber post and rail fence positioned along the road boundary;
- A hedge with a minimum height of 2m at maturity; and
- A row of trees, spaced at 10m apart (or less) that will grow to a height of at least 12m at maturity;

ii. A Landscaped Amenity Strip of 3m (minimum depth) along boundary of the Mangaone Precinct Structure Plan Area with any Rural Zone section of the C10 Growth Cell which must include a hedge with a minimum height of 2m at maturity;

iii. A Landscaped Amenity Strip of 3m (minimum depth) along the frontage of any lots adjoining an internal road within the Mangaone Precinct Structure Plan Area (except where site accessways are formed) comprising of:

- A row of specimen trees at regular spacings of 20m or less; and
- Groundcover planting or shrubs.

b. The Landscaped Buffer Strips required by subclauses a. i. and ii. above shall be implemented as follows:

i. The Zig Zag Road interface and Rural Zone interface within the C10 Industrial Growth Cell are to be landscaped at the time of the first subdivision and/or development of the land within the Mangaone Precinct Structure Plan Area to the north of the Mangaone Stream; and

ii. The Swayne Road interface is to be landscaped at the time of the first subdivision and/or development of the land within the Mangaone Precinct Structure Plan Area to the south of the Mangaone Stream.

c. Any security fencing up to a maximum of 3m high shall be located behind (i.e. on the internal edge) any Landscaped Buffer Strip specified in clause (a) above.

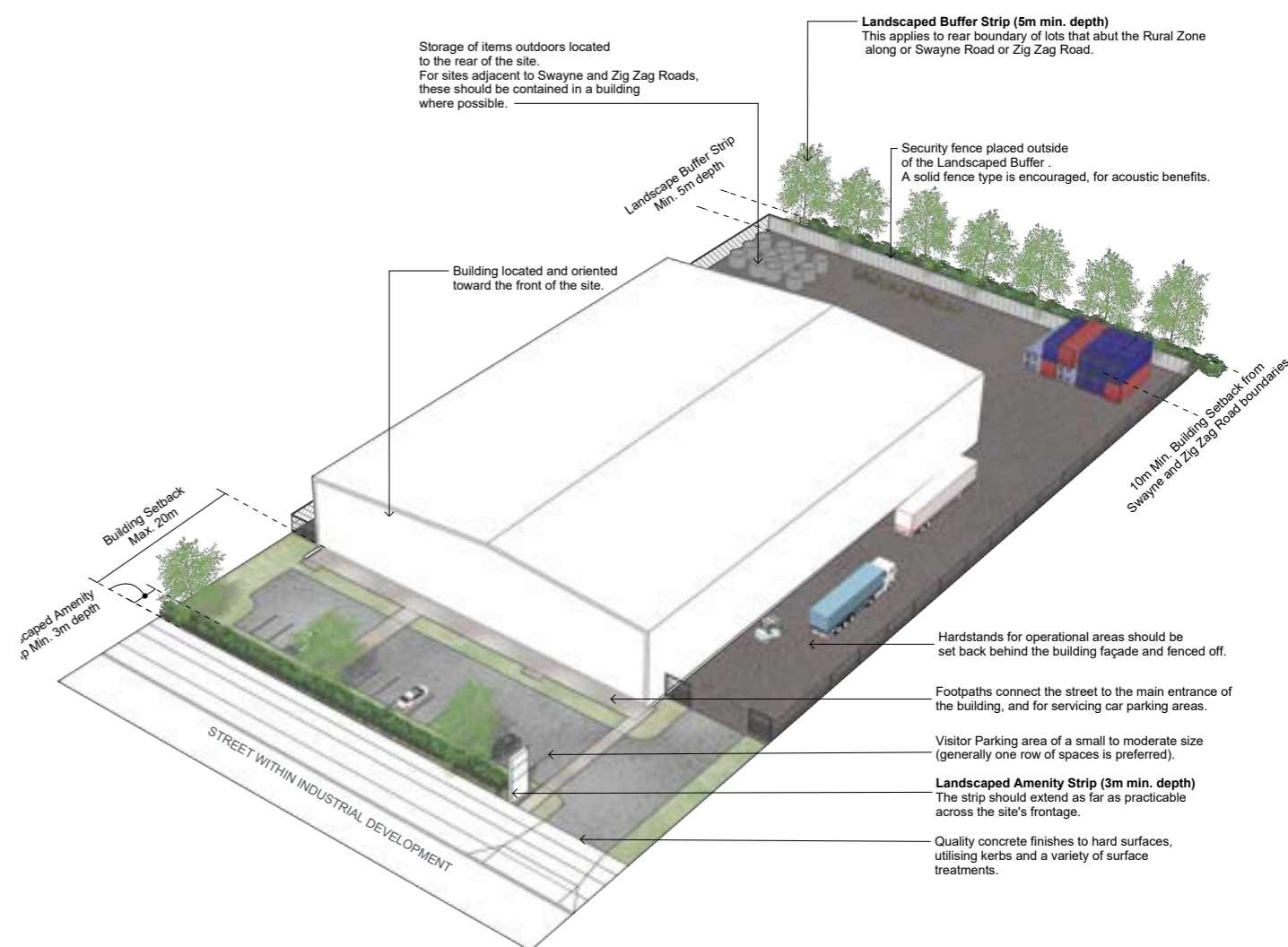


Figure 19 - Diagram used to test the look and feel of the outcomes of Rule 7.4.2.15A

- 7.4.2.15 - Activities that fail to comply with Rules 7.4.2.12 to 7.4.2.15A will require a resource consent for a discretionary activity.
- 7.4.2.31A - Within the Mangaone Precinct Structure Plan Area, in addition to Rule 7.4.2.28.d. and e. and Rule 7.4.2.29, the following signs are permitted:

a) Entrance signage forming part of an entrance gateway on each side of the entrance on Zig Zag Road identifying the name of the industrial area.

b) A 'pou whenua' at the Zig Zag Road entrance to the Mangaone Precinct Structure Plan Area and/or within the Mangaone Stream Reserve Area, up to a maximum height of 6m and a maximum width of 1.5m.

c) One single or double-sided tower sign at the vehicular entrance of each site identifying and providing information relating to the business(es) on the site with a maximum height of 8m and a maximum width of 2m on each side provided that the bottom 2m shall only comprise of one or two support poles within no signage so as to minimise any obstruction of sight lines for vehicles exiting the site.

Advice Note: In accordance with Rule 7.4.2.1, tower signs within the Mangaone Precinct Structure Plan Area are not subject to a setback from the front boundary.

d) One sign on a building within each site identifying and providing information relating to the business(es) on the site with a maximum area of 10m² provided that such signs shall be affixed to the building façade and the top of the sign shall not exceed 10m in height above ground level provided that such signs shall not be located on the façade of the building facing Swayne Road or Zig Zag Road.

e) Signs erected on a construction site giving details of the project up to a maximum of 20m² for the duration of the construction provided that any such signs shall not face Swayne Road or Zig Zag Road or be within 200m of the Waikato Expressway.

f) Any directional signage within the Mangaone Precinct Structure Plan Area.

g) Any signage up to a maximum of 4m² per sign (with a maximum of one sign per vendor or agent) advertising the land or premises for sale or lease.

- 7.4.2.28 to 7.4.2.31A - Activities that fail to comply with Rules 7.4.2.28 to 7.4.2.31A will require a resource consent for a discretionary activity.
- 15.4.2.91A - Any subdivision or development (as relevant) in the Mangaone Precinct Structure Plan Area shall ensure that:

d. The first subdivision or land use consent application of the Mangaone Precinct for industrial purposes, shall include:

ii. A Landscape Buffer Strip Planting and Implementation Plan to give effect to Rule 7.4.2.15A.

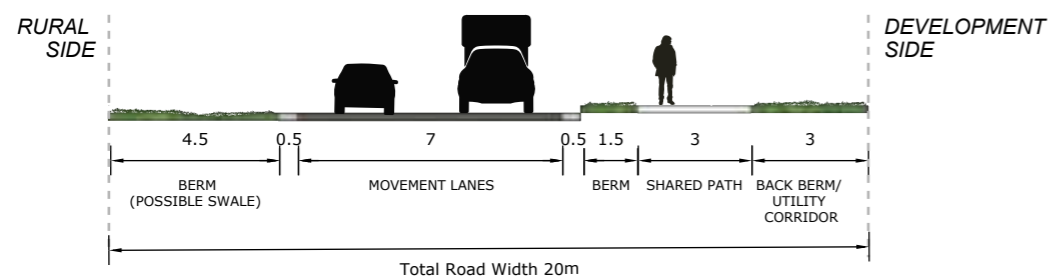


Figure 20 - Zig Zag Road and Swayne Road partial upgrade interface

4.5.5 Roads and Entries

The primary road access point to the Mangaone Precinct Structure Plan Area is proposed from Victoria Road/State Highway 1B to the west via a connection to the Collector Road currently under construction through the Bardowie Industrial Precinct. A secondary road access point is proposed to the north of the Mangaone Precinct on Zig Zag Road, which is currently proposed to incorporate a roundabout. Heavy vehicles will only have access to the Mangaone Precinct from these two locations. One minor road access point is anticipated on Swayne Road, and this is to be used for light passenger vehicles only.

Road upgrades will occur where these entries are located, and from the northern entry off Zig Zag Road back to the intersection with Victoria Road as the Mangaone Precinct Structure Plan Area is subdivided and developed. These changes will affect the landscape character of these areas, as the change in road profile to a kerb and channel will remove the rural character these roads currently have.

The roundabout proposed at the northern entry on Zig Zag Road will have obvious adverse effects on the rural landscape values currently associated with this road. This format of intersection is recommended by the traffic engineer for the project due to volume and safety requirements. However, this level of change is not supported from a landscape character perspective, and alternative solutions such as road widening, painted median strips and give way aspects are recommended to be investigated.

The structure plan for the Mangaone Precinct Structure Plan Area anticipates a north-south road connection being established across the Mangaone Stream to connect the northern and southern portions of the Mangaone Precinct Structure Plan Area. The precise location of this road connection and all road alignments will need to be determined at resource consent stage, however the location it is shown in the Structure Plan is based on naturally narrow areas of the stream that contain less established vegetation in order to minimise the effects that a crossing would have on existing natural character values.

The following sections of the Waipā District Plan have been proposed to be amended to ensure this outcome:

Rules

- 15.4.2.91A - Any subdivision or development (as relevant) in the Mangaone Precinct Structure Plan Area shall ensure that:

a. There is no new direct access from Lots or Activities to:

- Swayne Road; or
- Zig Zag Road.

Advice Note: Rule 15.4.2.8 shall apply to these roads.

b. Only light vehicles are able to use the proposed road connection to Swayne Road.

c. Roads shall be constructed in accordance with the roading cross-sections in the Mangaone Precinct Structure Plan;

These plans shall include the information requirements set out in Rule 21.2.7.

Activities which fail to comply with this rule will require resource consent for a non-complying activity.

- 16.4.2.12A - Apart from one point of roading access onto each of Swayne Road and Zig Zag Road in accordance with the Mangaone Precinct Structure Plan, there shall be no direct access to industrial lots within the Mangaone Precinct Structure Plan Area directly from Swayne Road or Zig Zag Road.

Activities that fail to comply with this rule will require a resource consent for a non-complying activity.

5.0

Assessment of Landscape Effects

5.1 Issues

Issues arise from the potential effects of the proposal on landscape values and the relevant planning framework.

Visual change is unavoidable with development facilitated by the Mangaone Precinct, from what is largely a rural agricultural land use to a primarily industrial land use. It is noted the Mangaone Precinct and its surrounding landscape is expected to have visual changes, as it is identified by the Waipā District Plan as an area for future change in appendix S1.

The Structure Plan and Plan Change Provisions for the Mangaone Precinct have been carefully considered to provide mitigation appropriate for an interface with a rural community that was not expecting the change in zoning to happen as soon as it has.

This assessment will test the previously described mitigation methods by reviewing selected representative viewpoints. It will make further recommendations on top of what has been incorporated into the structure plan if required. The recommendations, and therefore the structure plan, aim to:

- Achieve a development that is visually integrated with its current and future expected surroundings
- Achieve high quality landscape character within the development area
- Retain and improve upon sense of place

The issues for the Mangaone Precinct Structure Plan Area have primarily been addressed through the Structure Plan, Design Guidelines and Plan Change Provisions. They are as follows:

- Effects to amenity values of Mangaone Precinct Structure Plan Area interface with Swayne and Zig Zag Road and nearby residents. Eg height and proximity of proposed buildings
- Effects between Mangaone Precinct Structure Plan Area and existing rural land identified for future growth within Growth Cell 10
- Effects of PC14 on cultural landscape values associated with the Maungakawa Scenic Reserve hills
- Enhancement and protection of natural and cultural values due to Mangaone Stream enhancement planting and restrictions to lighting to protect bats
- Enhancement of recreation and amenity values due to circulation through the Mangaone Precinct Structure Plan Area (cycling and walking trails)
- Protection of natural and cultural values through stormwater management allowances within the PC14 Structure Plan Area
- Effects on heritage and amenity values of Swaynes House.

5.2 Assessment Rating Scale

The assessment rating scale from Te Tangi a te Manu has been applied to the proposed plan change with interpretations as follows. Please refer to Section 2.1 of this report for further discussion.

Rating	Landscape Effects (Physical, Associative and Perceptual)
Very High	Very obvious and serious effects to landscape values.
High	Obvious effects to landscape values.
Moderate to High	Marked effects to landscape values.
Moderate	Appreciable effects to landscape values; more marked effects on some values.
Low to Moderate	Increasingly evident effect to landscape values.
Low	Limited effect to landscape values.
Very Low	No effect or barely legible effect to landscape values.

5.3 Landscape Effects

As stated in Te Tangi a te Manu:

"Effects are consequences for landscape values of changes to the landscape's physical attributes. The values are embodied in certain physical attributes"²⁹.

The format of this assessment encompasses the majority of landscape effects identified in conjunction with viewpoints discussed. Refer to the following viewpoint discussions for more detail.

Additional effects that apply to the Mangaone Precinct Structure Plan Area which are not covered by assessed viewpoints are:

5.3.1 Enhancement of recreation and amenity values due to circulation through the Mangaone Precinct Structure Plan Area (cycling and walking trails)

The enhancement of the Mangaone Stream and surrounding wetlands includes the enablement of pedestrian, cycle and potential bridle trails, which provides a 'Moderate' positive landscape effect to recreation and amenity values. The inclusion of cycle and walking enablement is considered an appropriate way to provide integration with recreation values associated with the nearby rural landscape, wider values associated with Cambridge as a whole, and cultural values by providing mana whenua easy access to the stream and surrounds and an opportunity to communicate stories of the land within the network.

²⁹ Page 240, 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022

5.3.2 Enhancement and protection of natural and cultural values due to Mangaone Stream enhancement planting and restrictions to lighting to protect bats

The corridor of the Mangaone Stream has been identified as a 'High Value Bat Habitat'³⁰ for the Long-Tailed Bat/Pekapeka. The Bluewattle Ecology report in Appendix B of RMA Ecology's work recommends lighting restrictions to assist with protection of the species. The adverse landscape effect on bat populations due to the potential loss of this habitat due to development enabled by the Mangaone Precinct is considered 'Low'³¹. However, due to the high national threat status of the species Bluewattle Ecology recommends that reduction in the use of artificial lighting near the identified 'High Value Bat Habitat' is employed.

The Mangaone Precinct provisions ensure that appropriate restrictions on lighting are applied to any development enabled within the Mangaone Precinct Structure Plan Area, which along with enhancement planting of the Mangaone Stream, protects the foraging paths of bats in the area. With these provisions in place, and with the enhancement planting of the stream and wetlands, the landscape effect is considered 'Moderate', with the more marked effects being considered positive.

5.3.3 Protection of natural and cultural values through stormwater management allowances within the Mangaone Precinct Structure Plan Area

As part of investigation for the Mangaone Precinct Structure Plan Area, extensive testing was carried out to review the capacity for water to be managed through any development enabled by the Mangaone Precinct. Stormwater management issues have been experienced north of State Highway 1, and the application seeks to ensure the Mangaone Precinct manages its stormwater appropriately. As such, assessment of the Mangaone Precinct Structure Plan Area identified a need for the development of stormwater detention ponds to ensure the Mangaone Stream is not adversely affected. The protection of the Mangaone Stream aligns with mana whenua cultural values, and adherence to the recommendations contained in the Stormwater Management Plan will ensure that the effects on the landscape are considered.

The landscape effects of stormwater management within the Mangaone Precinct Structure Plan Area are assessed to have a 'Moderate' positive effect. This is due to the physical changes that will need to be undertaken to construct the stormwater ponds, which will in turn affect the values, changing them from naturalistic to a modified naturalistic environment. While these changes will be marked, they are considered positive outcomes when combined with enhancement planting, recreation and amenity value enhancement, and the consequential protection of the existing Mangaone Stream and its water flows and quality.

5.3.4 Effects on Landscape Character as perceived by the surrounding Cambridge Community

The development enabled by the Mangaone Precinct will remove open views of pasture, having a direct effect to rural landscape values for the Mangaone Precinct. It is noted that the area proposed for change has already been identified for future rezoning in the Waipā District Plan as part of growth cell C10 in Appendix S1, and forms part of an area that is growing and reflects the fact that Cambridge as a whole is a growing town.

Despite the identification of intended zone change for the area in the Waipā District Plan, it is noted that this was not anticipated until 2035 and beyond. Bringing this timeline forward, and the way development interfaces with the surrounding rural zones, was carefully considered and tested in the development of the Mangaone Precinct structure plan and plan change provisions to ensure sensitive outcomes.

Landscape buffers on the boundaries of the Mangaone Precinct Structure Plan Area will soften the transition of change, emulating rural shelter belts and providing rural style fencing. However, the removal of these open rural views will create a change to general sense of place for the wider Cambridge community to the north of SH1. The changes are assessed to result in 'Moderate-High' adverse effects to the existing rural landscape values that for the immediate surrounding area. This is primarily because the land use will change from rural to urban as a result of the Mangaone Precinct. The effects to landscape values diminish with distance, however the change is synonymous with urbanisation which could be perceived by some in the wider community as the loss of 'small town' values.

It is noted that the change in this area is anticipated through the Waipā District Plan, and the location of the area being adjacent to SH1 and other industrial areas is not considered inappropriate. Allowance for industrial growth in Cambridge is required as the town continues to expand, however the growth of such areas does not remove the effects to existing landscape values and community perceptions.

5.4 Visual catchment and viewing audiences

The visual catchment of the Mangaone Precinct is limited primarily to parts of Cambridge north of State Highway 1. This is due to topography, and to the landscape buffers that are in place either side of the State Highway. There are some views on Victoria Road south of State Highway 1 travelling north, and a representative viewpoint to review and assess this location is included in this report.

The most prominently affected audiences are rural residents who reside on Swayne Road and Zig Zag Road opposite the Mangaone Precinct. The further north the viewer travels, the more obstructed views to the Mangaone Precinct are by trees and shelter belts. Once the viewer reaches the Maungakawa Scenic Reserve hills or other elevated positions, the Mangaone Precinct is again notable, however distance, scale and aspect mean views of it are less prominent.

Apart from property owners views' from static locations, other viewers are mostly transient, and primarily by vehicle. Journeys are most often travelling between the rural and urban areas of Cambridge, or passing through the town north via Victoria Road and State Highway 1B past the Fonterra Manufacturing Site.

It is noted that some viewers experience the Mangaone Precinct either from horseback or bike from surrounding rural areas, or as a pedestrian walking from the Appleby Road track that links to the St Kilda subdivision.

5.5 Viewpoints

A total of 43 views were identified through desktop study and investigated as part of a site visit. From those, 10 locations were chosen to discuss due to their outlook to the Mangaone Precinct and representation of affected viewers. The viewpoints were then split into four main viewing audiences - Swayne Road, Zig Zag Road, North-Western Views and Distant Views.

Viewpoints are all located in public areas but are considered to be representative of the views available to neighbouring residents and to the general public from these areas.

When assessing likely effects the following are taken into consideration through the application of Te Tangi a te Manu assessment guidelines and best practice:

- The location of the representative viewpoint relative to the study area
- The extent of the total view available and the visibility and/or prominence of the study area within the view
- The size and makeup of the viewing audience and whether it is largely stationary or transient or one of a sequence of views
- The nature and degree of visual effect, including prominence, coherence, contrast
- The effect changes have on the values associated with the Mangaone Precinct and its surroundings
- The extent to which the Mangaone Precinct may be integrated into the landscape

The locations of the Representative Viewpoints are illustrated on the following map (Figure 19, Page 15). The photos taken from these Representative Viewpoints are illustrated in Appendix A and were taken with a 50mm lens. These photos were taken standing with an eyeball height at an approximately 1.6 metres above ground level (which is an average height for an adult).

In most instances the illustrated photos are a panorama consisting of a number of photos stitched together using Adobe Photoshop. Where this is the case, the number of photos stitched together is cited in the caption below the image. In some cases, viewpoints are split into two parts so that details can be more easily discerned.

30 RMA Ecology, Bardowie Structure Plan, Ecological Values and Effects Assessment, page 32.

31 Bluewattle Ecology, Bat Survey, Swayne Road, Hautapu - page 8

Figure 21 - Representative Viewpoints Plan



5.5.1 Views from Swayne Road (VP1, VP2)

Existing Views and Viewing Audiences

Viewpoints along Swayne Road are representative of views available to a small number of residents and primarily transient users. Transient users include recreational walkers and cyclists coming from the St Kilda Structure Plan area along Appleby Road; along with vehicle users coming into and out of Cambridge central from the surrounding rural areas.

VP1 is located on the corner of Appleby Road, looking towards the eastern and southern boundaries of the Mangaone Precinct approximately 42m away. The Mangaone Precinct is central to the view, taking up approximately 75% of it.

VP2 is located outside the south-eastern corner of number 184 Zig Zag Road, and intended to represent views from 190 Swayne Road. It looks towards the western boundary of the Mangaone Precinct and is approximately 16m away. The view is 180 degrees with the Mangaone Precinct taking up approximately 95% of it.

Views of the Mangaone Precinct consist of extensive flat pasture with post and wire fencing, along with the local power lines that run diagonally across the Mangaone Precinct in a north-westerly direction. Swaynes House and the ancillary farm building can be seen, along with the existing vegetation on the edges of the Mangaone Stream.

Industrial buildings for APL Limited and Fonterra are visible on the horizon to the west, and the temporary entry to the APL Limited site is clearly visible. Vegetation which buffers State Highway 1 is visible to the south, along with stockpiling of landscaping supplies on the Kiwifruit Block. The front edges of residential properties on Swayne Road can be seen immediately to the east, forming part of the experience for viewers.

Views of Swayne Road from this location consist of a two-way asphalt road with a middle line, no kerbs and open pasture style drains either side of the road. Deciduous exotic hedging can be seen along the boundary of the Mangaone Precinct at intermittent stretches, which is approximately 2m high.

The character values of this location are primarily rural due to the open pasture and fencing/boundary hedging styles. The industrial character presented in the APL and Fonterra buildings is separated by enough distance to be considered a nearby existing character rather than one associated directly with this view.

Effects of Proposed Plan Change

Visual Prominence

The proposed extension of the Industrial Zone to abut Swayne Road will result in the enablement of industrial development within the PC14 area, which will be highly visible. The views will change from the existing open landscape to industrial built form up to 20m high. This built form is likely to consist of primarily big box style warehouses. These buildings must be set back 10m minimum from the road reserve boundary, with a maximum of 10m high able to be achieved in this location, or 20m high enabled at 20m from the boundary due to the recession plane restrictions.

The edge of the boundary will include a 5m landscape buffer consisting of hedging that grows to a minimum of 2m at maturity and specimen evergreen trees of a minimum height of 12m at 10m spacings. This landscape buffer along with the building setback requirements will mean that buildings will be mostly screened from pedestrian level viewers once vegetation is mature, and that the vegetated buffer will be the dominant feature to viewers.

Visible buildings either above or between vegetation will require low reflectivity, and dark visually recessive colours. This means they will be less prominent when viewed between the green of vegetated buffers.

Fencing along Swayne Road is proposed to be a stained post and rail fence 1.5m high with the landscape buffer beyond. Any security fencing required will be placed within the lot behind the landscape buffer and so will not be visible.

These changes will likely include the removal of views to Swaynes House if this is retained as part of any future industrial development of the PC14 area.

Swayne Road is to remain unchanged, except for where an entry to the Mangaone Precinct is proposed for light vehicle movements only. In this locations, the entry is proposed to be formed kerb and channels feeding in to street profiles within. No driveways or traffic movements into buildings would exist from Swayne Road.

While traffic movements in this location will be increased, it is noted that they will be for light vehicle users only.

Effects on Landscape Values for Swayne Road

Summary of Effects for Viewpoint 1

- 'Moderate-High' adverse effects on rural landscape character values

Summary of Effects for Viewpoint 2

- 'Moderate-High' adverse effects on rural landscape character values
- 'Moderate' adverse effects on heritage landscape amenity values

Summary Discussion of Landscape Effects for Swayne Road

The combined magnitude of the effect of development facilitated by the proposed plan change is considered 'Moderate-High' and adverse for residents and transient viewers along Swayne Road.

This is based on the proximity to residents and the magnitude of the changes in character; while considering nearby industrial activities and the expectation for change within the Waipā District Plan.

The proposed plan change would be a visual extension to the existing character within the 'Bardowie Industrial Zone' which is visible further to the west. This change in character will affect the primarily rural landscape values that are currently associated with this viewpoint, removing open pastoral character and replacing it with a high amenity boundary synonymous with a more developed environment similar to a Large Lot Residential zone.

The change in character provided by the Mangaone Precinct is not unexpected and contributes to the perception of Cambridge as a developing town. The high amenity required as part of the boundary treatments (the landscape buffer and fencing) will complement the associative residential landscape values characteristic of the front boundaries of the properties on the eastern side of Swayne Rd, without attempting to avoid the change that rezoning brings. The provisions for the Mangaone Precinct ensure that landscape buffers are established early and all at once on Swayne Road³².

Proximity of buildings to boundaries and the potential they have to create an abrupt change in character between the Mangaone Precinct and opposite residential dwellings is imperative to consider. Building setbacks and height restrictions on the Mangaone Precinct boundaries provides some relief, while their presence will provide associative links with the developed areas to the south and west for transient viewers.

The lack of development applied to most of Swayne Road itself visually softens development enabled by the Mangaone Precinct, allowing a minor retention of some of the rural values associated with the view.

The entry point proposed along Swayne Road will increase traffic movement, and further add to the removal of rural character. This entry point will have a direct effect on the rural residents to the east of Swayne Road, providing breaks in the landscape buffer to reveal the development within. The high amenity nature and orientation of the entry, and landscape buffers to internal lots will soften the effects of this.

The landscape values associated with Swaynes House itself will remain rural in nature, however the surrounding landscape of the house will change if it is retained as part of any future industrial development of the PC14 area. It is recommended that integration of the house is sensitive to its character, and a buffer between the house and any adjacent development is created in the form of a hedge if it is retained.

It is acknowledged that views to Swaynes House would likely be removed by boundary Landscape Buffer planting required, and this is supported to protect the surrounding rural landscape values. It is recommended the Mangaone Precinct is developed in such a way that views to Swaynes House can be achieved by the public from internal roads if it is retained. This ensures the heritage landscape amenity values associated with the house are maintained.

5.5.2 Views from Zig Zag Road (VP3, VP4, VP5)

Existing Views and Viewing Audiences

Viewpoints along Zig Zag Road are representative of views available to a small number of residents and primarily transient users along Zig Zag Road. Transient users include cyclists, horse riders and vehicle users moving between Cambridge central and around the surrounding rural and industrial areas.

VP3 is located opposite the north-eastern corner of the Mangaone Precinct outside number 177 Zig Zag Road and at the intersection between Zig Zag and Swayne Roads and is approximately 35m away. The Mangaone Precinct is central to the view taking up approximately 95% of it.

VP4 is located opposite the northern side of the Mangaone Precinct outside paddocks that belong to number 151 Zig Zag Road, approximately 15m away. The Mangaone Precinct is central to the view, taking up approximately 95% of it.

VP5 is located opposite the north-western corner of the Mangaone Precinct in the driveway that belongs to number 73A Zig Zag Road, approximately 15m away. The Mangaone Precinct is central to the view, taking up approximately 85% of it.

Views of the Mangaone Precinct consist of some flat pasture with post and wire fencing in the foreground, a few mature deciduous trees and riparian planting in the mid-ground. High Voltage transmission line pylons can be seen linking to properties beyond the PC14 area. Power lines servicing local networks are visible along the boundary of Zig Zag Road. VP5 is dominated by views of the boundary hedging.

Properties on the northern side of Zig Zag Road can be seen on the edges of views, representing the character of many properties within the wider rural surroundings.

The APL building is central to VP4 on the horizon, and the Fonterra Manufacturing Site can be seen in the distance in both VP4 and VP5. The Maungakawa Scenic Reserve hills can be seen to the left on the distant horizon in VP4, Mt Kakepuku just right of the APL building, and Pirongia further to the right.

Views of Zig Zag Road consist of a two-way asphalt road with a middle line, no kerbs and open drains either side of the road.

The character of these viewpoints is primarily rural due to the open pasture and fencing, power pylons and large deciduous trees. There is also a native bush character from the riparian planting.

The APL building and Fonterra Manufacturing Site in the distance are visual links to industrial character that is expected as future development for the Mangaone Precinct.

Effects of Proposed Plan Change

Visual Prominence

The proposed zone extension will abut Zig Zag Road, and development changes will be dominant along the majority of the boundary of the Mangaone Precinct beyond the 'Reserve Area'. The existing views of the riparian planting, large deciduous tree and transmission line pylon are proposed to remain and be further enhanced with additional native vegetation on the north-eastern corner of the Mangaone Precinct.

The views beyond the 'Reserve Area' will change from the existing open landscape and hedging to industrial built form up to 20m high. This built form is likely to consist of primarily big box style warehouses. These buildings must be set back 10m minimum from the road reserve boundary, with a maximum of 10m high able to be achieved in this location, or 20m high enabled at 20m from the boundary due to the recession plane restrictions.

The edge of the boundary will include a 5m landscape buffer consisting of hedging that grows to a minimum of 2m at maturity and specimen evergreen trees of a minimum height of 12m at 10m spacings. This landscape buffer along with the building setback requirements will mean that buildings will be mostly screened from pedestrian level viewers once vegetation is mature, and that the vegetated buffer will be the dominant feature to viewers.

Visible buildings either above or between vegetation will require low reflectivity materials, and dark visually recessive colours. This means they will be less prominent when viewed between the green of vegetated buffers.

Fencing along road boundaries is proposed to be a stained post and rail fence 1.5m high with the landscape buffer beyond. Any security fencing required will be placed within the lot behind the landscape buffer and so will not be visible.

Zig Zag Road is proposed to remain unchanged between the eastern corner and the entry point illustrated in the structure plan. The entry point is proposed to be a roundabout, and the rest of Zig Zag Road leading west towards State Highway 1B will be upgraded to include formed kerb and channels and a 3m wide footpath. This entry is intended to service heavy and light vehicles. No driveways or traffic movements into buildings would exist from Zig Zag Road.

Effects on Landscape Values for Zig Zag Road

Summary of Effects for Viewpoint 3

- 'Moderate' adverse effects on rural landscape character values
- 'Moderate' positive effects on natural and cultural landscape values
- 'Moderate' positive effects on recreation and amenity values

The magnitude of the effect of development facilitated by the plan change request is considered adverse, and a 'Moderate' rating for residents and transient viewers in this location.

The retention and proposed enhancement of the existing rural and native bush landscape character on the eastern corner of the Mangaone Precinct which is central to this viewpoint softens the magnitude of change enabled by the plan change. This makes the visual transition between zones from this location and moving through it less abrupt, particularly when combined with the required buffer landscaping on boundaries further back in the view. The proposed enhancement planting provides a 'low-moderate' effect on landscape values from rural to native bush, which is a positive outcome for the local community and mana whenua.

Proposed pedestrian/cycle/bridle amenity links will be visible from this location, resulting in a 'Moderate' change in landscape recreation and amenity values. These types of activities are already available on Zig Zag Road informally, but the introduction of a dedicated network for their use is considered a 'Moderate' positive effect to recreation and amenity landscape values.

Summary of Effects for Viewpoint 4

- 'Moderate-High' adverse effects on rural landscape character values

Summary of Effects for Viewpoint 5

- 'Moderate-High' adverse effects on rural landscape character values

Summary Discussion of Landscape Effects for Zig Zag Road

The combined magnitude of the effect of development facilitated by the plan change request is considered 'Moderate-High' for residents and transient viewers along the majority of Zig Zag Road.

The lack of development applied to Swayne and Zig Zag Roads on the eastern corner softens the effects of the Mangaone Precinct, allowing retention of some of the rural values associated with the view and a softer transition between zones, particularly as a transient viewer.

The change in character provided by the Mangaone Precinct is not unexpected and contributes to the perception of Cambridge as a developing town. Building setbacks and height restrictions that will apply to the Mangaone Precinct Structure Plan Area boundaries will provide a softer transition between zones, while their presence will provide associative links with the developed industrial areas to the west for transient viewers.

The retention of a 2m high hedge in the landscape buffer maintains the rural character of planting along fence boundaries that currently exists in stretches along Zig Zag Road, and so would be viewed as a continued theme to transient viewers. The species for this hedge type would likely be evergreen rather than the existing deciduous species, which would be more synonymous with residential or commercial landscape values. The specimen trees required in the landscape buffer at 10m intervals will provide a character that bridges this higher amenity with rural character, as it is reminiscent of shelter belt planting commonly seen in rural landscapes. Buildings would be seen between these trees, creating a softer view of the development rather than hiding it. The Mangaone Precinct provisions will ensure that landscape buffers are established early and all at once on Zig Zag Road³³.

The proposed 1.5m high post and rail fencing for boundaries is a further provision that provides a link between rural character values and nearby industrial areas. The high amenity of this fencing ensures an outcome that does not ignore the change to landscape values that the development of the Mangaone Precinct enables; it acknowledges the transition that is required between industrial and rural landscape values.

The lack of development applied to Zig Zag Road up to the northern entry softens the effects of change, allowing retention of some of the rural values associated with the view. These roads experienced as part of a transient viewers journey are uninterrupted through their retained existing character, and maintain the perception of a soft transition to the wider rural character of the area.

The development proposed for Zig Zag Road at the northern entry and further west towards State Highway 1B has a 'Moderate-High' adverse effect on rural landscape values. The rural travel experience is removed and replaced with urban values commonly seen in Central Cambridge. Residential views are more in line with an industrial character, particularly the proposal of a roundabout at this location.

The landscape buffer and fencing give softening to this impact, however the shift is still noticeable and one of the primary effects that has influenced a higher rating for this viewpoint. It is understood that a roundabout is considered a requirement from the perspective of a traffic engineer and alternative solutions are not available for consideration in this location. Regardless of this advice, it is recommended that alternative solutions are considered and pursued where possible to maintain rural character.

33 New proposed rule 7.4.2.15A.b.i and 7.4.2.15A.b.ii

5.5.3 Nearby Northern Views - ~500m distance (VP6, VP7)

Existing Views and Viewing Audiences

Nearby northern viewpoints are representative of views available to a small number of residents and primarily transient users along Zig Zag Road. Transient users are primarily vehicle users moving between Cambridge central and around the surrounding rural and industrial areas. This viewpoint illustrates the approximate extent to which the Bardowie Industrial zone is visible, and how the Mangaone Precinct is viewed alongside that. It also illustrates the extent of the balance of the C10 growth cell as indicated in the Waipā District Plan, which is intended to be rezoned to Industrial land beyond 2035.

VP6 is located approximately 335m from the north-western corner of the Mangaone Precinct in the driveway that belongs to number 35 Zig Zag Road. The Mangaone Precinct is to the left of the view, taking up approximately 25% of it.

VP7 is located approximately 686m from the western side of the Mangaone Precinct in the second-most northern driveway that belongs to number 261 State Highway 1B. The Mangaone Precinct is central to the right of the view, taking up approximately 12.5% of it.

Views of the Mangaone Precinct are limited to the horizon beyond visible pastures. The riparian planting along Mangaone Stream forms part of the vegetated line above pasture. On the distant horizons beyond are the Maungakawa Scenic Reserve hills to the east. The foreground and majority of the view is of farmland belonging to the balance of the C10 Northern Block, which has been identified in the Waipā District Plan as part of the C10 future growth cell.

On the horizon is the indicated extent of the Bardowie Industrial zone, where the APL and Shoof Industrial buildings can be seen. It is expected this horizon will be filled with views of similar buildings over time as this zone is developed.

Views of Zig Zag Road consist of a two-way asphalt road with a middle line, no kerbs and open drains either side of the road. Views of SH1B/Victoria Road consist of a two-way asphalt road with a middle line, with formed kerb and channels either side of the road up to the intersection with Zig Zag Road.

The character of this viewpoint is primarily rural due to the views of pasture in the foreground. The presence of the Fonterra Manufacturing Site, Shoof Industrial and APL buildings on the horizon are a nearby industrial character which is expected to grow in prominence in this location as enabled by the Bardowie Industrial Zone; and as implied by the C10 growth cell identified in the Waipā District Plan. The presence of the Fonterra Manufacturing Site to the west is dominant and a key contributor to the nearby industrial landscape values.

Effects of Proposed Plan Change

Visual Prominence

The proposed zone extension and development changes will be noticeable to viewers.

The Mangaone Precinct will enable industrial built form up to 20m high which will be visible on the horizon of this view, and will break views of the Maungakawa Scenic Reserve hills beyond if they are built to their full extent. Buildings will form a visual extension to development enabled by the Bardowie Industrial Zone. This built form is likely to consist of primarily big box style warehouses similar to the APL building.

The details of the landscape buffer proposed on the interface with Zig Zag Road will not be visible from this distance, but will blend with the surrounding rural character in the fact it is a 'green border' to the road edge. The landscape buffer proposed on the interface with the balance of the C10 Northern Block will also soften and reduce the visual bulk of buildings.

The Mangaone Stream and its wetlands are to be protected and enhanced with further planting within the 'Mangaone Stream Reserve', which will create a visual break to the cumulative bulk of buildings the Mangaone Precinct may enable.

Zig Zag Road is proposed to be upgraded to a kerb and channel road with a 3m wide footpath that stretches from the proposed northern entry to the Mangaone Precinct Structure Plan Area back to the intersection with State Highway 1B. This entry is intended to service heavy and light vehicles. The upgrade will be the most notable change along Zig Zag Road, as it will change the character from rural to urban landscape values.

Effects on Landscape Values for Nearby Northern Views

Summary of Effects for Viewpoint 6

- 'Moderate' adverse effects on rural landscape character values
- 'Low' cumulative effects on industrial landscape character values
- 'Low' adverse effects on natural and cultural landscape character values

Summary of Effects for Viewpoint 7

- 'Low-Moderate' adverse effects on rural landscape character values
- 'Low' cumulative effects on industrial landscape character values
- 'Low' adverse effects on natural and cultural landscape character values

Summary Discussion of Landscape Effects for Nearby Northern Views

The combined magnitude of the effect of development facilitated by the proposed plan change is considered 'Moderate' for residents and transient viewers when seen from nearby northern locations.

This is due to the distance and the extent of the view, the large area of land retained and enhanced with native vegetation planting within the Mangaone Precinct Structure Plan Area, the extent of the already enabled Bardowie Industrial Zone, as well as the expected future change of the visible rural land in the foreground.

The proposed plan change would be a visual extension to existing character either built or enabled within the existing industrial zones to the west. The development enabled by the Mangaone Precinct will be high amenity. The change in zoning and associated activity is expected as part of Appendix S1 of the District Plan.

The most notable change in character that will affect views from these locations is the upgrade to Zig Zag Road and the increased proximity of industrial character it brings. The primarily rural landscape values that are currently associated with the foreground of this viewpoint will be altered to reflect the character of an area that is in transition to a more developed industrial environment.

The development proposed for Zig Zag Road in this location has a direct effect on rural landscape values. The rural travel experience is removed and replaced with urban values commonly seen in Central Cambridge or within the existing industrial zones. The landscape buffer and fencing required along boundaries to the Mangaone Precinct Structure Plan Area give softening to this impact, however the shift is still noticeable once the Mangaone Precinct is passed, and one of the primary effects that has influenced a higher rating for viewpoint 6. To the transient viewer, development of Zig Zag Road and of the Mangaone Precinct will be a visual extension of other industrial landscape values that are being experienced, and the effects would be lower when travelling from State Highway 1B.

The most affected viewers will be the residents in these northern locations. While residential viewers on Victoria Road/State Highway 1B will be more directly impacted by development on the existing Bardowie industrial Zone, the development of the Mangaone Precinct will further change surrounding landscape values to an industrial nature to the east of available views as well, creating a shift in sense of place values as views on multiple sides become more industrial.

While this change is expected as part of the Waipā District Plan, it will still have an effect on land owners within the C10 Growth Cell area who have not yet applied for a zone change (the C10 Northern Block). The Mangaone Precinct provisions include landscape buffers along the western edge to soften the visual extents of these changes. The retention and enhancement of the Mangaone Stream and its surrounding wetlands will provide visual breaks to the extension of industrial landscape character, as will internal streets and their associated planting.

The height of buildings enabled by the proposed plan change will have an effect on natural landscape and cultural landscape character values as seen from these northern locations. The development enabled by the Mangaone Precinct could result in buildings up to 20m high, which would obstruct views to the Maungakawa Scenic Reserve hills on the horizon above the Mangaone Precinct. This would result in a 'Moderate' negative effect on cultural landscape values when travelling along Zig Zag Road, and a 'Low' negative effect when travelling along State Highway 1B. While no evidence has been found that viewshafts to these mountains are protected, it is acknowledged that in general, mountains are significant landmarks to tangata whenua.

It is noted the extent of the Mangaone Precinct would not obstruct all views to the Maungakawa scenic reserve hills, but rather a sections, and so cultural landscape values would still be able to be maintained as seen from these northern locations.

The effects to landscape values are generally lower as seen from this northern area, due to the distance and scale. While the development of the Mangaone Precinct can be considered cumulative as seen from these locations, the fact the land is identified for future growth in the Waipā District Plan means development is anticipated in the future and planned in a controlled manner.

5.5.4 Distant Views - Victoria Road South of State Highway 1 (VP8)

Existing Views and Viewing Audiences

Viewpoint 8 is representative of views available to transient viewers to the south-west of the Mangaone Precinct along Victoria Road. Transient users are mainly vehicle users moving between Cambridge central and the surrounding industrial areas, or onto State Highway 1. This viewpoint illustrates the approximate extent to which the Bardowie Industrial zone is visible, and how the Mangaone Precinct is viewed alongside that. The viewpoint is located approximately 623m from the south-western corner of the Mangaone Precinct adjacent to number 115 Victoria Road. The Mangaone Precinct is central to the view, taking up approximately 6% of it.

Views of the Mangaone Precinct are limited due to the foreground vegetation buffering State Highway 1 and topography. The APL building can be seen on the horizon with the Maungakwa Scenic Reserve hills beyond. The foreground and majority of the view is of State Highway 1 buffer planting and the adjacent public walking/cycle tracks, and an area zone residential that has not been developed yet.

The character of this viewpoint is a mixture of natural/recreational due to the buffer landscape and pedestrian/cycle paths, and urban due to views of the State Highway. The APL building is a distant industrial character which is isolated to its location.

Effects of Proposed Plan Change

Visual Prominence

The proposed plan change and development it facilitates will be visible in this view.

The Mangaone Precinct will enable industrial built form up to 20m high which will be visible to the right of the APL building, rising above the State Highway buffer planting. The lower part of buildings will be obscured by the State Highway buffer planting.

Only the southern side of development enabled by the Mangaone Precinct will be visible, so landscape buffers and the enhancements for the Mangaone Stream will not have an effect from this angle.

Effects on Landscape Values

Summary of Effects for Viewpoint 8

- 'Low' adverse effects on natural and amenity landscape character values
- 'Low' cumulative effects on urban/industrial landscape character values

Summary Discussion of Landscape Effects Victoria Road South of State Highway 1

The landscape effect of development facilitated by the plan change request is considered 'Low' as viewed from this location.

This is due to the distance, angle and the extent of the view within the wider context, foreground vegetation, and the extent of the already enabled Bardowie Industrial Zone.

Foreground vegetation of the State Highway landscape buffer screens the lower half of views of development enabled by the Mangaone Precinct. The extension of industrial character that the Mangaone Precinct enables is not significant relative to the existing extent of development the Bardowie Industrial Zone permits.

5.5.5 Distant Views - Fencourt Road (VP9)

Existing Views and Viewing Audiences

Viewpoint 9 is representative of views available to residents and transient viewers to the north-east of the Mangaone Precinct, particularly around Fencourt Road. Transient users are mainly vehicle users moving between Cambridge central and the surrounding rural and industrial areas, and some horse and bike riders within the rural surrounds.

This viewpoint illustrates the approximate extent to which the Bardowie Industrial zone is visible, and how the Mangaone Precinct is viewed alongside that. The viewpoint is located approximately 1,162m from the eastern side of the Mangaone Precinct adjacent to number 381 Fencourt Road and opposite 394 Fencourt Road. The Mangaone Precinct is central to the the view, taking up approximately 6% of it.

Views of the Mangaone Precinct are limited to the horizon beyond visible pastures. The riparian planting along Mangaone Stream is not visible in this location. The APL, Shoof Industrial and Fonterra Manufacturing Site can be seen on the horizon with Pirongia beyond. The foreground and majority of the view is of farmland in the surrounding rural zones.

The character of this viewpoint is primarily rural due to the views in the foreground. The APL building and Fonterra Manufacturing Site are a distant industrial character which is isolated to its location and does not significantly alter the existing rural landscape values this view provides.

Effects of Proposed Plan Change

Visual Prominence

The proposed plan change and development it facilitates will be noticeable on the horizon of this view.

The Mangaone Precinct will enable industrial built form up to 20m high which will be visible in front of the APL building and to the right extending beyond in this view. The landscape buffer proposed on the interface of the Mangaone Precinct Structure Plan Area with Swayne and Zig Zag Road will obscure most views of buildings from this distance so that only the tops will be visible above. This will be a softer view than is currently available of the APL building as well as for buildings enabled by the Mangaone Precinct.

The Mangaone Stream and its wetland areas are to be protected and enhanced with further planting as part of the Mangaone Precinct. While not able to be distinguished in this viewpoint, the enhancement and protection of these features will maintain existing distant views of vegetation, preventing development in these locations and therefore any potential glimpses of buildings that may have been visible beyond existing midground vegetation.

Effects on Landscape Values

Summary of Effects for Viewpoint 9

- 'Low' adverse effects on rural landscape character values

Summary Discussion of Landscape Effects for Fencourt Road

The landscape effect of development facilitated by the plan change request is considered 'Low' as viewed from this location.

This is due to the distance, angle and the extent of the view within the wider context, foreground vegetation, and the extent of the already enabled Bardowie Industrial Zone.

Development enabled by the Mangaone Precinct will primarily be visible above the landscape buffer planting that will border the Mangaone Precinct Structure Plan Area, and only if it is developed to the full extent of the permitted height. Landscape buffer planting will also screen current views of development seen within the Bardowie Industrial Precinct, which is considered a positive effect to rural landscape values. The change in landscape character will be softened by the landscape buffer planting required around the perimeter of the Mangaone Precinct Structure Plan Area, which will balance the effects on rural landscape values observed from this viewpoint.

5.5.6 Distant Views - from Elevated Positions (VP10)

Existing Views and Viewing Audiences

Viewpoint 10 is representative of views primarily available to residents in elevated positions to the east of the Mangaone Precinct. This viewpoint was selected to investigate and assess potential effects of the proposed plan change as seen from elevated locations further away.

The most affected viewers will be residents, and members of the public who may stop at lookout points when using the Maungakawa Scenic Reserve. Transient users are mainly vehicle users moving between Cambridge central and the surrounding rural areas, and due to the nature of roads will only have fleeting glimpses of the Mangaone Precinct.

This viewpoint illustrates the approximate extent to which the Bardowie Industrial zone is visible, and how the Mangaone Precinct is viewed against that. It also illustrates the extent of the balance of the C10 Growth Cell as indicated in the Waipā District Plan. The viewpoint is located approximately 4.6km from the eastern side of the Mangaone Precinct in the driveway that belongs to number 295 Maungakawa Road. The Mangaone Precinct is central to the right of the view, taking up approximately 6% of it.

Views of the Mangaone Precinct are limited due to the angles provided and foreground vegetation. The riparian planting along Mangaone stream is not visible in this location. On the distant horizons beyond are Pirongia and Mt Kakepuku. The foreground and majority of the view is of farmland in the surrounding rural zones.

The indicated extent of the Bardowie Industrial zone is barely visible above the Mangaone Precinct, where the APL building can be seen taking up most of the extents. The Fonterra Manufacturing Site can be identified to the right.

The character of this viewpoint is primarily rural due to the surrounding farmland taking up the majority of views. The APL building and Fonterra Manufacturing Site are a very distant industrial character which is isolated to its location and does not significantly alter the existing rural landscape values this view provides.

Effects of Proposed Plan Change

Visual Prominence

The proposed zone extension and development it facilitates will be noticeable to a small degree in this view.

The Mangaone Precinct will enable industrial built form up to 20m high which will be visible in front of the APL building in this view. Views of these buildings will barely provide any difference to existing views of development enabled by the Bardowie Industrial Precinct, as they will be developed in a similar style to the APL building and stand in front of it.

The landscape buffer proposed on the interface with Swayne Road is unlikely to be noticeable from this viewpoint due to the distance and other vegetation screening the Mangaone Precinct from this aspect.

Effects on Landscape Values

Summary of Effects for Viewpoint 10

- 'Very Low' adverse effects on rural landscape character values

Summary Discussion of Landscape Effects

The landscape effect of development facilitated by the plan change request is considered 'Very Low' as viewed from this location.

This is due to the distance, angle and the extent of the view within the wider context, foreground vegetation, and the extent of the already enabled Bardowie Industrial Precinct.

The proposal would enable development of a similar style directly in front of the Bardowie Industrial Zone rather than extending it. Due to the aspect of the view, replacing one high amenity 'big box' industrial building for another, or a few smaller, is not considered a change that will alter the landscape values associated with the view in this location.

While softening of views are provided for in the proposed structure plan and plan change provisions which provide a high amenity environment, the effect to rural landscape values will not be noticeable from this location.

5.6 Assessment of Landscape Effects Summary

Existing Landscape Values

The Mangaone Precinct currently consists of open pasture used for dairy farming, the Mangaone Stream and its natural vegetation, Swaynes House, two ancillary farm structures, two sets of transmission lines (one low voltage and one high) and land earmarked for industrial activities at 137 Swayne Road. Ecological investigations and reporting have also identified the presence of Pekapeka (Long-tailed Bats) which use the vegetation of the Mangaone Stream for foraging.

The presence of the Fonterra Manufacturing Site, Shoof Industrial and APL buildings to the east of the Mangaone Precinct are representations of industrial landscape values which are expected to grow in prominence in these locations as enabled by the Bardowie Industrial Precinct.

The landscape character values associated with the existing Mangaone Precinct are:

- Natural and cultural landscape values (from the Mangaone Stream, wetlands, native vegetation and Pekapeka habitat area, as well as distant views of the Maungakawa Scenic Reserve hills)
- Rural landscape values (from the open pasture, farm style Swaynes House, fencing and ancillary farm structures)
- Heritage landscape values (from the presence of Swaynes House, and heritage listed item)
- Industrial landscape values (from the tall ancillary farm structure and nearby industrial buildings)

The proposed plan change will affect the zoning of the area and consequently enable an extension of industrial landscape values similar to those existing to the west, removing rural and heritage landscape values, and small areas of views to the Maungakawa Scenic Reserve hills as seen from the north-west. It is noted that the area proposed for change has already been identified for future rezoning in the Waipā District Plan as part of C10 Growth Cell in Appendix S1, and forms part of an area that is growing and reflects the fact that Cambridge as a whole is a growing town.

Despite the identification of intended zone change for the area in the Waipā District Plan, it is noted that this was not anticipated until 2035 and beyond. Bringing this timeline forward, and the way development interfaces with the surrounding rural zones, was carefully considered and tested in the development of the PC14 Structure Plan and plan change provisions to ensure sensitive outcomes.

Engagement with mana whenua and the surrounding residents was undertaken by the applicant and fed back to the consultant team, who ensured they considered and integrated responses to the issues raised where possible.

Summary of Landscape Effects

Views of future industrial development facilitated by the proposed plan change primarily affect residents from existing rural zoned land, particularly on Swayne Road and Zig Zag Road, as this will form a permanent part of their outlook. More distant viewers will be less affected due to the scale, aspect and foreground obstructions. Transitory viewers will primarily see development facilitated by the proposed plan change request as part of a journey that will fit with the character of the existing 'Industrial Zone' to the west, and a reflection of the development and growth of Cambridge.

The overall effects arising from the proposed plan change request have been split into four main viewing audiences - Swayne Road, Zig Zag Road, North-Western Views and Distant Views. These are assessed as:

Swayne Road

- 'Moderate-High' adverse effects on rural landscape character values
- 'Moderate' adverse effects on heritage landscape amenity values

Zig Zag Road

- 'Moderate-High' adverse effects on rural landscape character values
- 'Moderate' positive effects on natural and cultural landscape values
- 'Moderate' positive effects on recreation and amenity values

North-Western Views

- 'Moderate' adverse effects on rural landscape character values
- 'Low' adverse effects on natural and cultural landscape values
- 'Low' cumulative effects on industrial landscape character values

Distant Views

- 'Low' adverse effects on rural landscape character values
- 'Low' adverse effects on natural and cultural landscape values
- 'Low' cumulative effects on industrial landscape character values

Summary Discussion of Landscape Effects

The change in character from rural to industrial anticipated and enabled by the Mangaone Precinct is not unexpected, and contributes to the perception of Cambridge as a developing town.

The protection and enhancement of the Mangaone Stream and associated wetlands, the stormwater management that will be required as part of further development, and protection area for the Pekapeka, allows opportunities to significantly enhance the natural and cultural landscape values. Combined with pedestrian and cycle recreation amenity, the asset of the Mangaone Stream and the change in landscape values associated with the Mangaone Precinct in this area are notably positive for the local community and mana whenua.

It is noted the extent of the Mangaone Precinct would not obstruct all views to the Maungakawa Scenic Reserve hills, but rather a section, and so cultural landscape values would still be able to be maintained as seen from north-western locations.

The presence of the Mangaone Stream Reserve Area on the north-eastern corner of the Mangaone Precinct Structure Plan Area softens the effects of the proposed plan change, allowing retention of some of the rural values currently associated with the view and a softer transition between zones, particularly as a transient viewer.

Buffer planting on road boundaries around the perimeter of the Mangaone Precinct Structure Plan Area will assist in visually softening the changes built form creates. The proposed plan change amends these requirements to ensure that the landscape amenity of fencing and buffers on Zig Zag Road and Swayne Road are considered appropriate. The proposed plan change seeks to provide a specific height and density that aims to achieve a soft transition between zones; while being sensitive to rural landscape values by providing links to this character style in terms of materials/species. The provisions for the Mangaone Precinct will ensure that landscape buffers are established early and all at once along Zig Zag and Swayne Road respectively³⁴.

Landscape buffer planting is also required between the Mangaone Precinct Structure Plan Area and the undeveloped rural land in the C10 Growth Cell. This softens views to residents within this land until such a time as it may be rezoned in the future.

Within the Mangaone Precinct Structure Plan Area, building setbacks that also create restrictions to height in relation to proximity to boundary, along with recessive building colours and low reflectivity materials, will ensure that buildings seen above or between specimen trees in the landscape buffers are not prominent to viewers and instead visually blend together.

The landscape values associated with Swaynes House will remain rural in nature, however the surrounding landscape of the house will change if it is retained as part of any future industrial development of the Mangaone Precinct Structure Plan Area. It is recommended that integration of the house is sensitive to its character, and a buffer between the house and any adjacent development is created in the form of a hedge if it is retained.

It is acknowledged that views to Swaynes House would likely be removed by boundary Landscape Buffer planting required around the perimeter of the Mangaone Precinct Structure Plan Area, and this is supported to protect the surrounding rural landscape values. It is recommended the Mangaone Precinct Structure Plan Area is developed in such a way that views to Swaynes House can be achieved by the public from internal roads if it is retained. This will ensure the heritage landscape amenity values associated with the house are maintained.

Road upgrades likely to be required for Zig Zag Road at the northern entry and further west towards State Highway 1B will have an adverse effect on rural landscape values. The rural travel experience is removed and replaced with urban values commonly seen in Central Cambridge. Residential views are more in line with an industrial character, particularly the proposal of a roundabout at this location.

The landscape buffer and fencing requirements around the perimeter of the Mangaone Precinct Structure Plan Area will give softening to this impact, however the shift is still noticeable and one of the primary effects that has influenced a higher rating for views from Zig Zag Road. It is understood that a roundabout is considered a requirement from the perspective of a traffic engineer and alternative solutions are not available for consideration in this location. Regardless of this advice, it is recommended that alternative solutions are considered and pursued where possible to maintain rural character.

A 'Moderate-High' adverse effect to existing rural landscape values has been assessed along Zig Zag Road and Swayne Road. This is an assessment based on the embedded mitigation requirements that have been recommended for landscape and visual outcomes for the Mangaone Precinct Structure Plan Area. These outcomes and the assessment are considered appropriate in consideration that there is a transition from rural to urban landscape character.

The aim of the Mangaone Precinct Structure Plan and provisions is to soften the transition of change between zones rather than hide it. Sensitivity to rural residents directly adjacent to the Mangaone Precinct Structure Plan Area has been a priority for the team. Combined with the further recommendations identified within this assessment, the PC14 Structure Plan and provisions are viewed as an appropriate and acceptable approach to address the effects to landscape values for an area that is anticipating changes as identified in the Waipā District Plan.

6.0 Recommendations

Recommendations in addition to the Mangaone Precinct Structure Plan and Plan Change Provisions are as follows:

1. Review the proposed roundabout at the northern entry on Zig Zag Road and provide alternative solutions where possible to maintain a rural character
2. If Swaynes House is retained within the Mangaone Precinct Structure Plan Area, it is to have a landscape buffer established between itself and any adjacent industrial buildings/yards to soften or screen industrial landscape character.
3. If Swaynes House is retained within the Mangaone Precinct Structure Plan Area, views to it must be made available from internal roads.

7.0 Conclusion

Proposed PC14 will rezone the land within the Mangaone Precinct and consequently enable an extension of industrial landscape values similar to those existing to the west, removing rural and heritage landscape values, and small areas of views to the Maungakawa Scenic Reserve hills as seen from the north-west. It is noted that the Mangaone Precinct has already been identified for future rezoning in the Waipā District Plan as part of the C10 Growth Cell in Appendix S1, and forms part of an area that is growing. The change in character anticipated by the Mangaone Precinct is not unexpected, and contributes to the perception of Cambridge as a developing town.

Despite the identification of intended zone change for the Mangaone Precinct in the Waipā District Plan, it is noted that this was not anticipated until 2035 and beyond. Bringing this timeline forward, and the way development interfaces with the surrounding rural zones, was carefully considered and tested in the development of the Mangaone Precinct Structure Plan and plan change provisions to ensure sensitive outcomes.

Views of development facilitated by the proposed plan change primarily affect residents from existing rural zoned land, particularly on Swayne Road and Zig Zag Road, as this will form a permanent part of their outlook. More distant viewers will be less affected due to the scale, aspect and foreground obstructions. Transitory viewers will primarily see development facilitated by the proposed plan change request as part of a journey that will fit with the character of the existing 'Industrial Zone' to the west, and a reflection of the development and growth of Cambridge.

The protection and enhancement of the Mangaone Stream and associated wetlands, the stormwater management that will be required as part of further development, and protection area for the Pekapeka, allows opportunities to significantly enhance the natural and cultural landscape values. Combined with pedestrian and cycle recreation amenity, the asset of the Mangaone Stream and the change in landscape values associated with the Mangaone Precinct are notably positive for the local community and mana whenua.

The lack of development applied to boundary edges where the Mangaone Stream abuts them allows retention of some of the existing rural values associated with these locations and a softer transition between zones.

Landscape buffer planting and building set-backs at the rural edge of the Mangaone Precinct Structure Plan Area will assist to visually soften the changes built form create. The proposed plan change amends these requirements to ensure that the landscape amenity of fencing and buffers on Zig Zag Road and Swayne Road are considered appropriate. The proposed plan change seeks to provide a specific height and density that aims to achieve a soft transition between zones; while being sensitive to rural landscape values by providing links to this character style in terms of materials/species.

Sensitivity to rural residents directly adjacent to the Mangaone Precinct has been a priority for the team. A 'Moderate-High' adverse effect to existing rural landscape values has been assessed along Zig Zag Road and Swayne Road, in acknowledgement that the rural landscape values are being replaced with industrial landscape values. This is an assessment based on the embedded mitigation requirements that have been recommended for landscape and visual outcomes for the Mangaone Precinct that will soften this outcome. These outcomes and the assessment are considered appropriate in consideration that there is a transition from rural to urban landscape character.

Combined with the further recommendations identified in this assessment, the PC14 Structure Plan and provisions are viewed as an appropriate and acceptable approach to address the effects to landscape values for an area that is anticipating changes as identified in the Waipā District Plan.

Appendix A

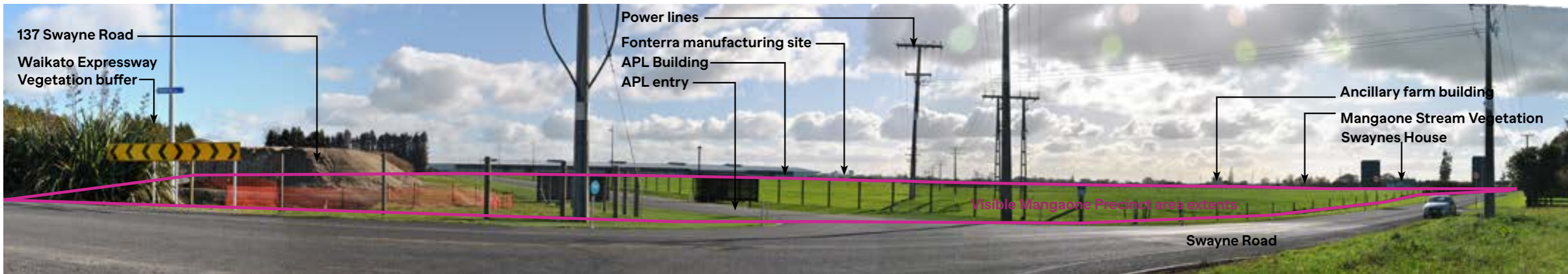
**HARRISON
GRIERSON**

Swayne Road Viewpoints



Viewpoint 1 (VP1) - Existing

Orientation of view: North-West
 Height of Camera: 1.6m
 Date of Photography: 31 May 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 6x individual photos.



Viewpoint 1 (VP1) - Existing Annotated

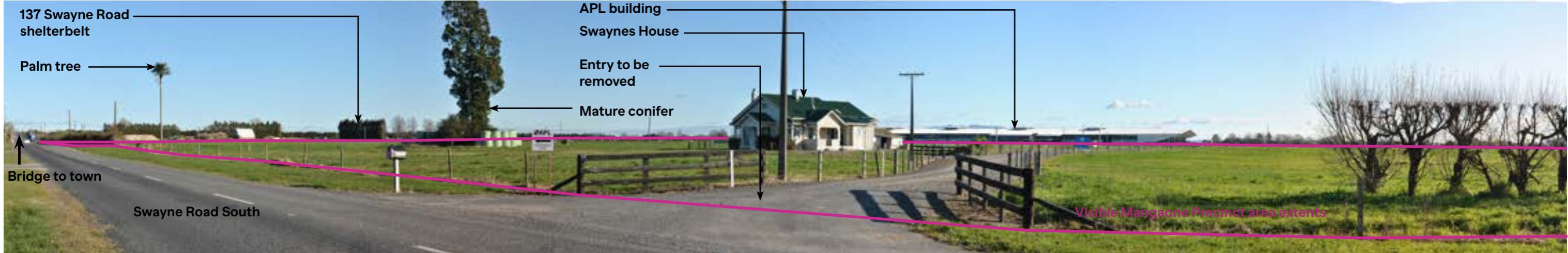
Orientation of view: North-West
 Height of Camera: 1.6m
 Date of Photography: 31 May 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 6x individual photos.

Swayne Road Viewpoints



Viewpoint 2 (VP2) - Existing

Orientation of view: South-West
 Height of Camera: 1.6m
 Date of Photography: 14 June 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 7x individual photos.



Viewpoint 2 (VP2) - Existing Annotated

Orientation of view: South-West
 Height of Camera: 1.6m
 Date of Photography: 14 June 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 7x individual photos.

Zig Zag Road Viewpoints



Viewpoint 3 (VP3) - Existing

Orientation of view: South-West
 Height of Camera: 1.6m
 Date of Photography: 31 May 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 5x individual photos.



Viewpoint 3 (VP3) - Existing Annotated

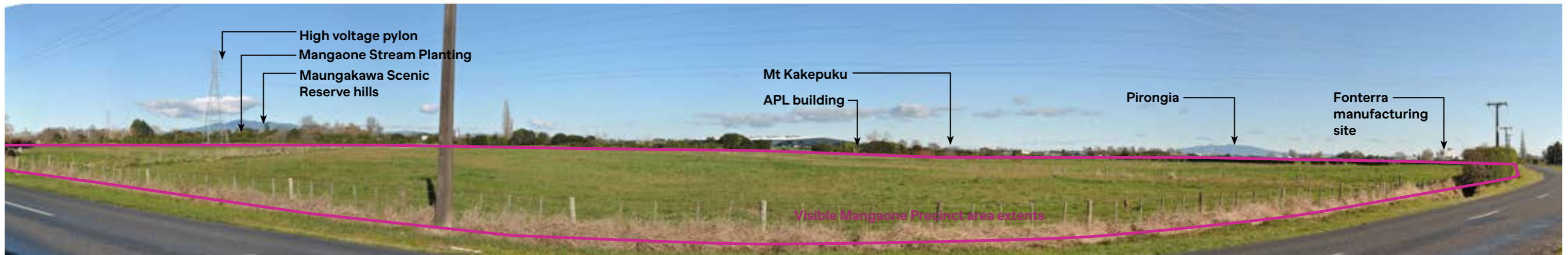
Orientation of view: South-West
 Height of Camera: 1.6m
 Date of Photography: 31 May 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 5x individual photos.

Zig Zag Road Viewpoints



Viewpoint 4 (VP4) - Existing

Orientation of view: South
Height of Camera: 1.6m
Date of Photography: 14 June 2023
Camera: Nikon D3000 using a 50mm lens
Panorama stitched together in Adobe Photoshop consisting of 9x individual photos.



Viewpoint 4 (VP4) - Existing Annotated

Orientation of view: South
Height of Camera: 1.6m
Date of Photography: 14 June 2023
Camera: Nikon D3000 using a 50mm lens
Panorama stitched together in Adobe Photoshop consisting of 9x individual photos.

Zig Zag Road Viewpoints



Viewpoint 5 (VP5.1) - East - Existing

Orientation of view: South-East
Height of Camera: 1.6m
Date of Photography: 14 June 2023
Camera: Nikon D3000 using a 50mm lens
Panorama stitched together in Adobe Photoshop consisting of 6x individual photos.



Viewpoint 5 (VP5.1) - East - Existing Annotated

Orientation of view: South-East
Height of Camera: 1.6m
Date of Photography: 14 June 2023
Camera: Nikon D3000 using a 50mm lens
Panorama stitched together in Adobe Photoshop consisting of 6x individual photos.

Zig Zag Road Viewpoints



Viewpoint 5 (VP5.2) - West - Existing

Orientation of view: South-West
Height of Camera: 1.6m
Date of Photography: 14 June 2023
Camera: Nikon D3000 using a 50mm lens
Panorama stitched together in Adobe Photoshop consisting of 7x individual photos.



Viewpoint 5 (VP5.2) - West - Existing Annotated

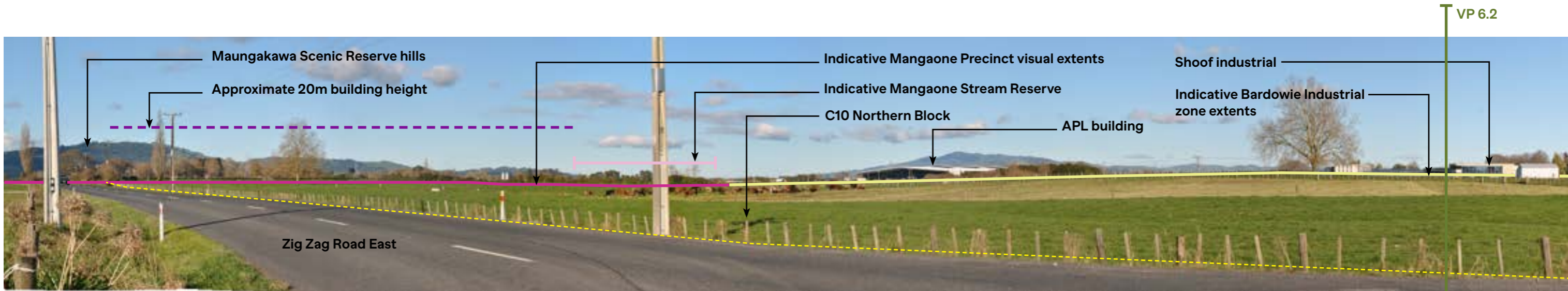
Orientation of view: South-West
Height of Camera: 1.6m
Date of Photography: 14 June 2023
Camera: Nikon D3000 using a 50mm lens
Panorama stitched together in Adobe Photoshop consisting of 7x individual photos.

Nearby Viewpoints



Viewpoint 6 (VP6.1) - East - Existing

Orientation of view: South-East
 Height of Camera: 1.6m
 Date of Photography: 14 June 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 6x individual photos.



Viewpoint 6 (VP6.1) - East - Existing Annotated

Orientation of view: South-East
 Height of Camera: 1.6m
 Date of Photography: 14 June 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 6x individual photos.

Nearby Viewpoints



Viewpoint 6 (VP6.2) - West - Existing

Orientation of view: South-West
Height of Camera: 1.6m
Date of Photography: 14 June 2023
Camera: Nikon D3000 using a 50mm lens
Panorama stitched together in Adobe Photoshop consisting of 6x individual photos.



Viewpoint 6 (VP6.2) - West - Existing Annotated

Orientation of view: South-West
Height of Camera: 1.6m
Date of Photography: 14 June 2023
Camera: Nikon D3000 using a 50mm lens
Panorama stitched together in Adobe Photoshop consisting of 6x individual photos.

Nearby Viewpoints



Viewpoint 7 (VP7.1) - East - Existing

Orientation of view: South-East
 Height of Camera: 1.6m
 Date of Photography: 14 June 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 7x individual photos.



Viewpoint 7 (VP7.1) - East - Existing Annotated

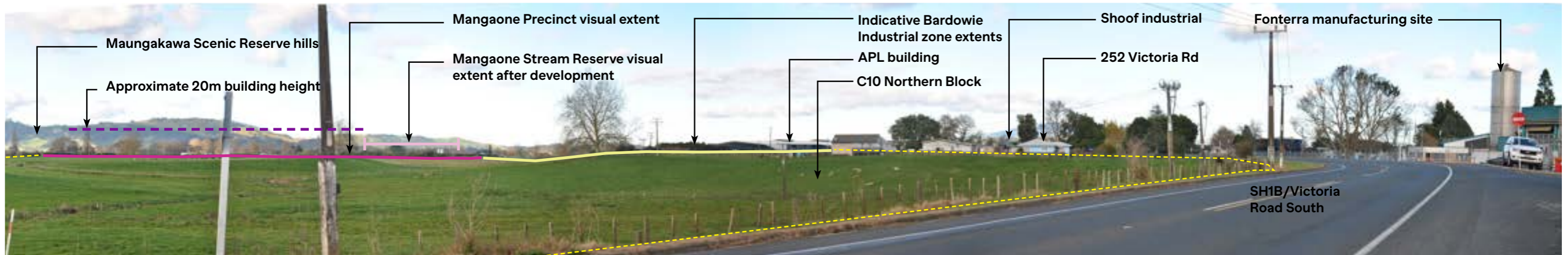
Orientation of view: South-East
 Height of Camera: 1.6m
 Date of Photography: 14 June 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 7x individual photos.

Nearby Viewpoints



Viewpoint 7 (VP7.2) - West - Existing

Orientation of view: South-West
 Height of Camera: 1.6m
 Date of Photography: 14 June 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 6x individual photos.



Viewpoint 7 (VP7.2) - West - Existing Annotated

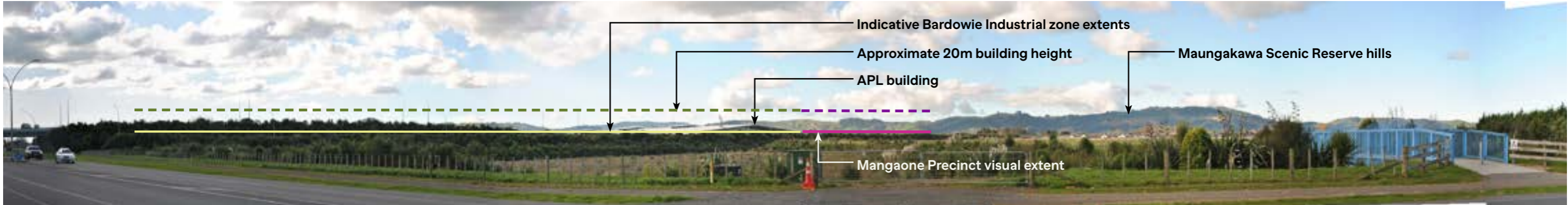
Orientation of view: South-West
 Height of Camera: 1.6m
 Date of Photography: 14 June 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 6x individual photos.

Distant Viewpoints



Viewpoint 8 (VP8) - Existing

Orientation of view: North-East
Height of Camera: 1.6m
Date of Photography: 14 June 2023
Camera: Nikon D3000 using a 50mm lens
Panorama stitched together in Adobe Photoshop consisting of 9x individual photos.



Viewpoint 8 (VP8) - Existing Annotated

Orientation of view: North-East
Height of Camera: 1.6m
Date of Photography: 14 June 2023
Camera: Nikon D3000 using a 50mm lens
Panorama stitched together in Adobe Photoshop consisting of 9x individual photos.

Distant Viewpoints



Viewpoint 9 (VP9) - Existing

Orientation of view: South-West
Height of Camera: 1.6m
Date of Photography: 14 June 2023
Camera: Nikon D3000 using a 50mm lens
Panorama stitched together in Adobe Photoshop consisting of 9x individual photos.



Viewpoint 9 (VP9) - Existing Annotated

Orientation of view: South-West
Height of Camera: 1.6m
Date of Photography: 14 June 2023
Camera: Nikon D3000 using a 50mm lens
Panorama stitched together in Adobe Photoshop consisting of 9x individual photos.

Distant Viewpoints



Viewpoint 10 (VP10) - Existing

Orientation of view: South-West
 Height of Camera: 1.6m
 Date of Photography: 14 June 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 9x individual photos.

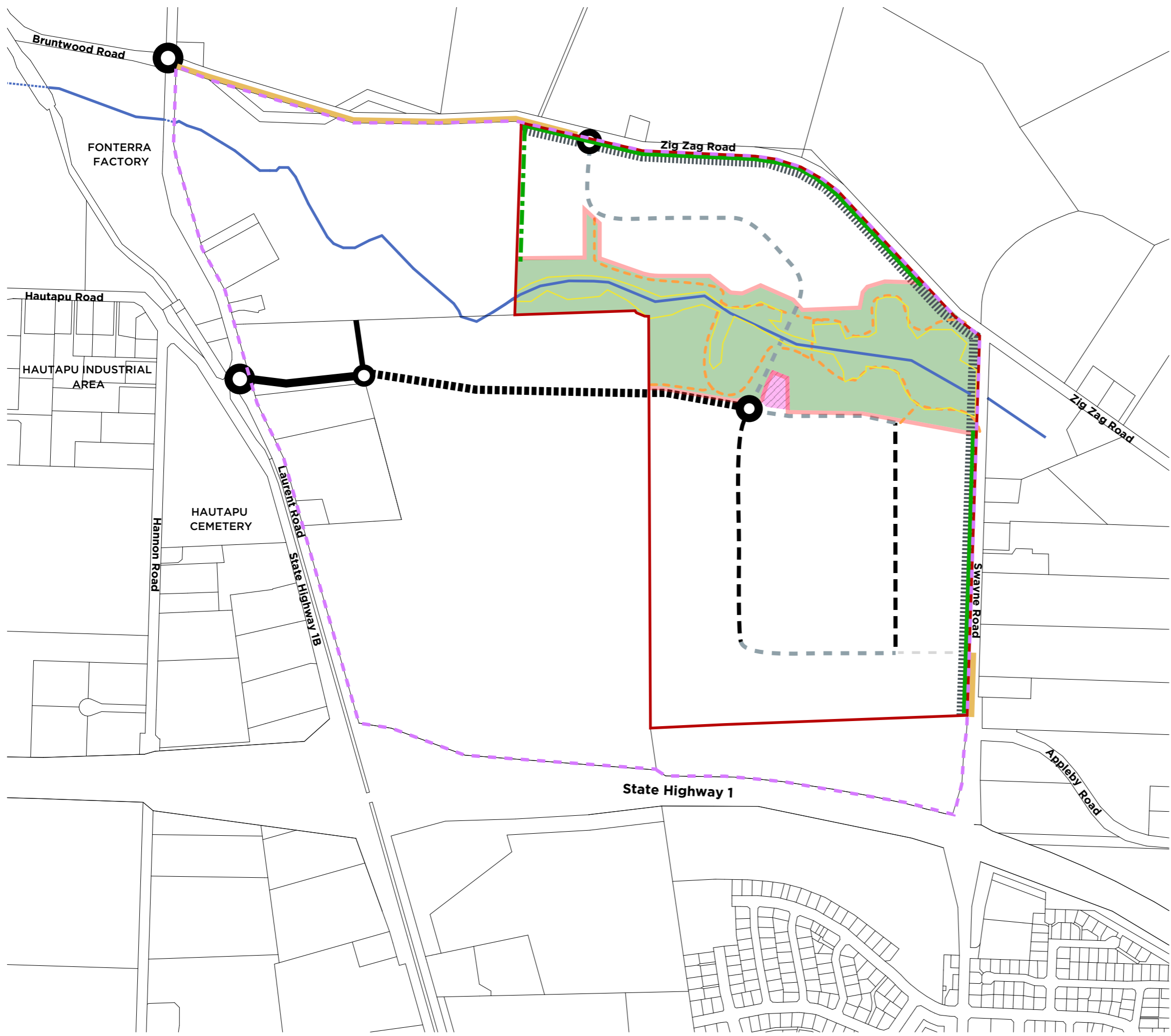


Viewpoint 10 (VP10) - Existing Annotated

Orientation of view: South-West
 Height of Camera: 1.6m
 Date of Photography: 14 June 2023
 Camera: Nikon D3000 using a 50mm lens
 Panorama stitched together in Adobe Photoshop consisting of 9x individual photos.

Appendix B

**HARRISON
GRIERSON**



- KEY**
- Proposed Mangaone Precinct Structure Plan Area Boundary
 - C10 Growth Cell Boundary
 - Existing Parcel Boundaries
 - Mangaone Stream
 - Mangaone Stream Reserve
Area to incorporate Cultural, Ecological and Stormwater management functions.
 - Mangaone Stream Reserve Building Setback: 5m
 - High Value Bat Habitat
 - Central Focal Area
 - Roundabout Location
 - Collector Road Alignment
 - Local Road with Swale Alignment
 - Local Road Alignment
 - Minor Road (light vehicles only)
 - Rural Road - Partial Upgrade
 - Vehicle Access Restriction (VAR) Applies
 - Walking & Cycling Path
 - Landscaped / Planted Buffer Strip: 5m
 - Landscaped / Planted Buffer Strip: 3m

Note:
The scale and location of all features shown above are indicative and subject to refinement through Resource Consent.

MANGAONE PRECINCT STRUCTURE PLAN

SCALE: 1:7500 at A3
 CLIENT: Fonterra Limited
 PROJECT: HAUTAPU PLAN CHANGE 14
 DATE: 2 May 2024
 STATUS: For Plan Change Submission

