# Te Awamutu T11 Structure Plan

Context Report
Prepared for Waipa District Council
25 June 2020

## Document Quality Assurance

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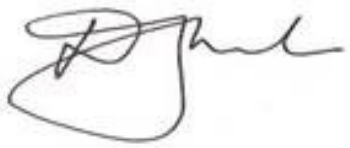
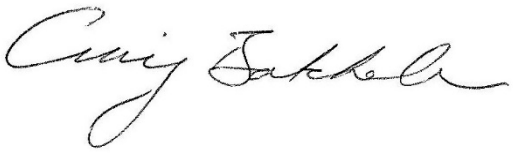
| Prepared by: | Dave Moule<br>Planner / Senior Principal<br>Boffa Miskell Limited |  |
| Reviewed by: | Craig Batchelar<br>Planner / Partner<br>Boffa Miskell Limited |  |
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# Appendices

# 1.0 Introduction

## 1.1 Background

The Waipa District has been identified as a high growth area in the National Policy Statement on Urban Development Capacity (NPS-UDC).

The townships of Te Awamutu and Kihikihi are forecast to grow by 5,400 people by 2050. To provide for this growth, Council has set out to prepare a structure plan for the T11 growth cell, as identified in the Waipa 2050 Growth Strategy (2017), Waipa 2018-28 Long Term Plan, and Plan Change 5 to the Waipa District Plan.

The T11 growth cell is a 47ha area of land located on the eastern side of Te Awamutu to the south of the Cambridge Road commercial node. The growth cell has been identified as a residential growth cell with a capacity of approximately 432 dwellings. This location is suitable for this land use as it expands on the existing residential area on Cambridge Road and provides for some growth in close proximity to the Cambridge Road commercial node.

The growth cell is currently zoned Deferred Residential.

Plan Change 5 to the Waipa District Plan was a public plan change that was made operative on 14 March 2019 and amended the District Plan to incorporate key changes made to the updated Waipa 2050 Growth Strategy (Waipa 2050). These changes are important in taking account of revised population projections and the requirements of the NPS-UDC. The Plan Change rezoned all of the growth cells identified in the Growth Strategy zoned as “Rural” to “Deferred”.

## 1.2 Purpose of this report

The purpose of this report is to provide context to the design process that has informed the Structure Plan and to confirm the relevant statutory planning framework and associated procedural requirements to enable Council’s decision-making process and investment in the next phase of facilitating development within the T11 growth cell.

To ensure that development is consistent with the Council’s strategic direction as set out in Waipa 2050 and the Waipa District Plan, Council has commissioned Boffa Miskell to develop a Structure Plan and to identify servicing requirements for the T11 growth cell in consultation with landowners and key stakeholders. The Final Structure Plan was endorsed at an Extraordinary Council Meeting on 7 April 2020 and is attached to this report as **Appendix One.**

Design Guidelines have also been developed to support the implementation of the Structure Plan and to ensure that, as these areas are developed, the community and Council can be assured of a high level of quality and consistency for any future development. It is acknowledged that the guidelines have no statutory weight and are unlikely to be embedded into the District Plan by way of a Plan Change, however they have been developed as a guidance document for landowners and Council. The Design Guidelines are attached to this report as **Appendix Two.**

The development of the Structure Plan and Design Guidelines have been informed by background reports and technical assessments previously commissioned by Council and updated technical assessments completed by Tonkin & Taylor.

The updated technical assessments have been prepared to demonstrate that the growth cells are suitable for urban development, including consideration of three waters infrastructure, transportation, and liquefaction. The technical assessments prepared by Tonkin & Taylor are attached to this report as **Appendix Three.**

# 2.0 Site Context

## 2.1 T11 Growth Cell - Residential

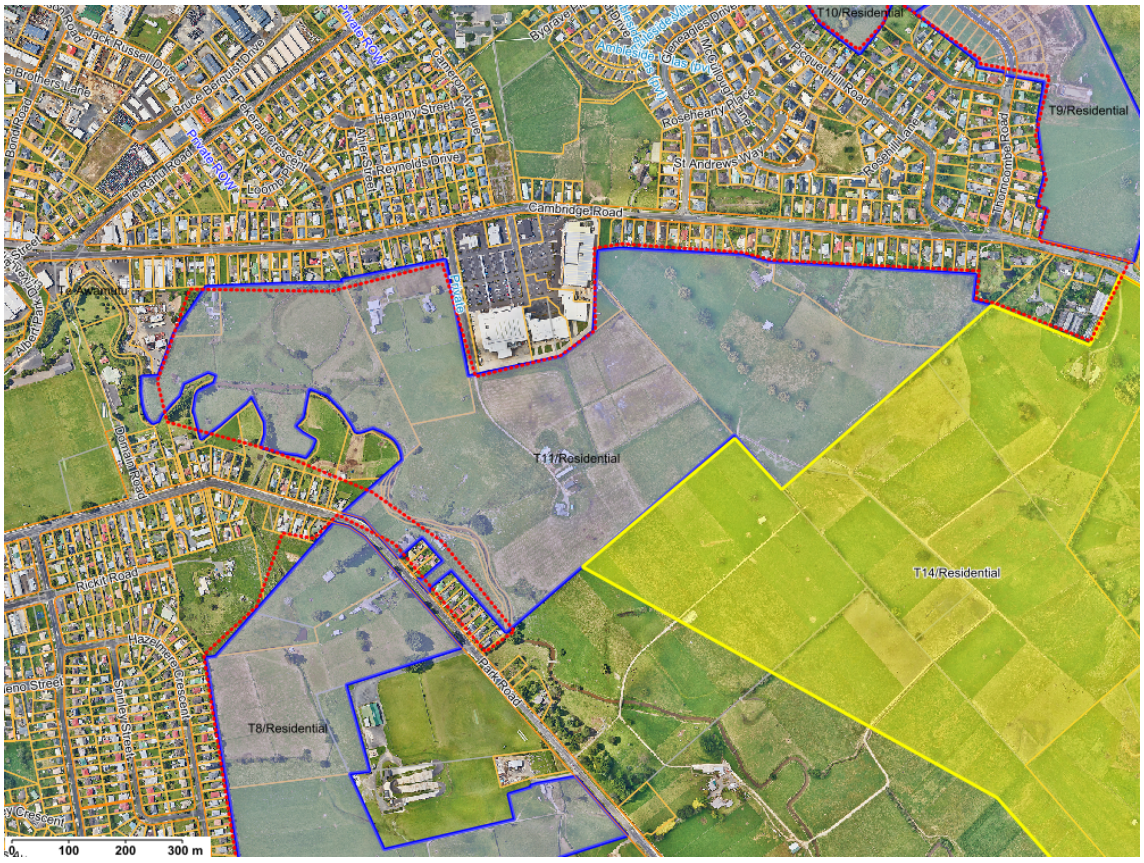


Figure 1 – T11 Residential Growth Cell, Te Awamutu

The T11 growth cell is predominantly characterised by rural farming and cropping blocks, large mature vegetation, with a limited number of residential dwellings. The topography generally slopes to the south and the land drains to the Mangaohoi Stream which runs along the southern boundary of the growth cell.

There are significant flooding constraints within this growth cell associated with the Mangaohoi Stream, which has resulted in a large portion of the cell being deemed unsuitable for development.

Providing for changing housing demands while maintaining existing character and amenity expectations will be challenging. The Town Concept Plan 2010 prepared for Te Awamutu provides guidance on how these competing demands can be managed. The Town Concept Plan recognises that a change in the current density and form of residential development will need to occur if future housing demands are to be met in a sustainable manner.

It is important that the distinguishing characteristics of this particular place are maintained, including reflecting the existing semi-rural character, retaining existing mature trees where suitable and ensuring appropriate boundary setbacks for buildings.

The deferred residential zone status of the land makes future provision for more sustainable forms of living. Sustainable forms of living are required in order to manage resources that have

a limited supply (such as land) as well as to reduce the overall 'footprint' on the environment. In the Residential Zone this outcome is to be achieved by providing for appropriate infill development, and compact housing development options (including semi-detached dwellings, duplexes, terrace housing or low-rise apartments).

Any development options of this nature on the site will be required to be comprehensively designed, coordinated with infrastructure provision, take into account key elements of character, and address effects on neighbouring properties. Sustainable living is also supported through rules that require dwellings to be positioned for passive solar gain and by ensuring enough open space is provided on site for a range of activities such as recreation activity, pedestrian and cycle connectivity, and amenity outcomes.

# 3.0 Structure Plan Design Context

## 3.1 General Design Principles

The following general design principles have underpinned the development of the T11 Structure Plan:

- **Respect for existing character.** All designs should reflect a comprehensive understanding and appreciation of location and surrounding context. The natural environment is protected and enhanced to provide amenity and ecological enhancement. Important sites and landmarks are acknowledged to respect the history and culture of the area.
- **Cultural identity.** Opportunities are to be identified throughout the development of cultural interpretation and education within the landscape. Maori names and design elements will be incorporated where appropriate and in consultation with local iwi.
- **Social value.** People are the key consideration in all aspects of the design. Public safety, recreation and social values are paramount.
- **Connectivity.** Transport networks and public spaces incorporate stormwater management, and green corridors for pedestrian and ecological connections. A network of pedestrian and cycleways through the development connects the residents to the existing town, open spaces, and playgrounds.
- **Appropriate scale.** The scale and hierarchy of roads, cycleways and walking tracks are integrated to ensure a balance of transport options and access to public transport.
- **Quality public realm.** High-quality materials and construction methods used throughout the neighbourhood in both the public and private spaces, ensure spaces will retain a sense of quality and attract residents to use the facilities.
- **Well-designed built environment.** The built form guidelines ensure that the landscape and buildings within private lots contribute to the amenity, safety, and broad context of the development. The guidelines are intended to encourage creative design outcomes, not to limit or restrict original architecture or design.

## 3.2 Open Space Framework

The open space framework design for the T11 Structure Plan reflects a comprehensive understanding of the existing landscape and surrounding land use context. The development

will be efficient, connected and permeable, with a focus on pedestrian walkways, cycleways, reserves and green corridors.

The existing exotic and native mature trees perform many functions, including removing groundwater and reducing the requirement for stormwater attenuation; ecological functions, such as providing habitat and food for birds; retaining the rural aesthetic; shade during summer for people and animals; cutting of wind, reduction of soil erosion from storm events. Existing trees have been incorporated into the open space framework where possible.

The open space framework is made up of:

- Reserves
- Green Streets
- Open Spaces
- Playgrounds
- Vegetated Swales

The combination of these spaces allows for a green network to be created through the site, ensuring that all members of the community have access to an open space, and the natural environment.

## 3.3 Stormwater Management

The proposed reserves and open spaces within the T11 structure plan will provide for people's recreational interests, and the protection of landscapes, amenity, ecosystems, cultural and historical values. They also fulfil an important stormwater management function.

There are significant flood risks that have been identified within this growth cell associated with the Mangaohoi Stream. This has resulted in a large portion of the growth cell being deemed unsuitable for development.

The stormwater management approach for those developable areas of the growth cell can be summarised as follows:

- Wherever possible retention, reuse and onsite soakage for stormwater is allowed to soak into impermeable services and managed through natural systems. Natural systems such as vegetated swales, are a low impact way of managing stormwater which are also an important amenity feature of the site.
- The western and southern areas of the growth cell currently provide a significant amount of natural floodplain storage volume and the growth cell has been split into two smaller sub-cells to avoid increased flood risk downstream through the existing Te Awamutu urban area.
- A flood flowpath across the lots in the western sub-cell area will need to be managed adequately, with the most appropriate option likely to be divert the flowpath around the southern end of the lots through the open space/reserve. This flowpath will also need to provide mitigation for the displacement of the floodplain volume.
- Due to the position of the growth cell within the wider Mangaohoi catchment, peak flow control of the 2 year ARI and higher magnitude flood events is not recommended to avoid coincidence with the larger Mangaohoi flood peak.
- Retention, reuse and onsite soakage of the post-development water quality volume will be required to provide stormwater treatment and erosion control.

- Onsite soakage will need to be tested and designed on a lot by lot basis. If on-site soakage investigations show that the post-developed water quality rainfall volume cannot be achieved through water tanks and soakage, then bio-retention devices or a suitable wetland will need to be designed.
- Vegetated swales are recommended to convey overland flow.
- The compact housing area overlay is in close proximity to public open space. This is a best practice approach, where higher density residential environments are offset with easy access to usable open space networks.

## 3.4 Connectivity

The road connections through the T11 structure plan area will holistically integrate cars, pedestrians, cyclists, stormwater management, and ecology.

High-quality streets with tree lined berms, grassed swales, and footpaths/cycleways are proposed to provide a safe and attractive area for both vehicular and pedestrian movement.

The Structure Plan will have a 25m green boulevard / tree framed collector road through the sites which become the main spine road for vehicles, pedestrians, and cyclists. The 18m local roads accommodate pedestrian facilities on one side and the option for stormwater conveyance through a vegetated swale down the other side.

A network of shared paths and footpaths will help to connect residents to site features such as reserves, playgrounds, commercial zone, and the neighbourhood centres.

Shared paths should be a minimum of 3m wide while footpaths should be a minimum of 1.5m wide.

An integrated pedestrian and cycle network improve the wellbeing of the residents through exercise, contact with the natural environment, and social interaction.

The activation of the public realm from people moving through these spaces makes them safer and more attractive to a range of users.

## 3.5 Built Form

The Design Guidelines in combination with the District Plan provisions for the relevant zone will ensure the height and bulk of built form is appropriate to the location and character of the site.

The scale, position and external appearance of new buildings must consider their settings and the relationships they have with nearby buildings and spaces.

Well-designed buildings will be compatible with the surrounding environment and respect privacy of neighbouring residents. They take into account the character of the area and are designed to enhance this character. The built form should also take into account site circumstances and local micro-climatic conditions, such as solar access, topography, and prevailing wind. Trees and landscaping are to be used for privacy and screening and to soften the built form.

Maximum height and site coverage controls will ensure houses relate well to the size of the lots, without being overly dominant visually. Considerate building placement ensures good relationships between neighbouring properties, roads and reserves.

The Design Guidelines provide a framework which will lead to positive outcomes for the landowners and the wider community. This encourages original design which considers the unique opportunities of the site and development areas.

## 3.6 Anticipated Development Yields

The Structure Plan for the T11 growth cell is anticipated to deliver a development yield of approximately 380 allotments (approximately 10 lots per hectare). This is a provisional estimate based on net developable area and takes into account the loss of land used for roads and open space. As already outlined, a large portion of the growth cell has been identified as vulnerable to flood risks and has been excluded from the developable areas of the structure plan.

The provisional yields are relatively consistent with the capacities identified in the Waipa District Plan (Appendix S1) of 432 dwellings (where 380 are anticipated) for T11.

## 3.7 Growth Cell Boundary Extension

The Structure Plan for T11 includes a proposed extension into the adjoining growth cell to the south-east, being the T14 growth cell. This extension is ultimately at the request of the landowners who have progressed some concept design for development on their landholdings within T11 and T14. This is considered to be a logical extension to incorporate an extension of the key road connections between the growth cells and better align the growth cell boundaries with existing cadastral boundaries within T14. The land to be included by way of the boundary extension is also zoned Deferred Residential.

# 4.0 Statutory Context

## 4.1 Te Ture Whaimana o Te Awa o Waikato - Vision and Strategy for the Waikato River

Te Ture Whaimana o Te Awa o Waikato – the Vision and Strategy for the Waikato River arises from the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 and the Ngati Tuwharetoa, Raukawa and Te Arawa River Iwi Waikato River Act 2010 (Upper River Act). These acts establish a co-governance regime to protect the health and wellbeing of the Waikato River for future generations. This includes the lower Waipa River to its confluence with the Puniu River.

The vision for the Waikato River is "*for a future where a healthy Waikato River sustains abundant life and prosperous communities who, in turn, are all responsible for restoring and protecting the health and wellbeing of the Waikato River, and all it embraces, for generations to come*." The Vision and Strategy also includes objectives and strategies to achieve the vision. Waipa District Council has a duty to give effect to the Vision and Strategy for the Waikato River, through the Waipa District Plan and other planning documents.

The development of the Structure Plan has taken into account the Vision and Strategy for the Waikato River. In particular, the preliminary design includes high-level stormwater management solutions to ensure that water quantity and quality effects resulting from future development are appropriately mitigated and accord with best practice. This will help inform more detailed technical assessments that will be necessary to support any subsequent resource consent applications under the District Plan and any regional stormwater discharge permits required under the Waikato Regional Plan. The objectives of Vision and Strategy for the Waikato River

will need to be assessed in more detail as and when a more robust technical analysis of cumulative stormwater effects has been undertaken.

## 4.2 National Policy Statement on Urban Development Capacity

The NPS-UDC is intended to ensure there is sufficient land available for future housing and business needs. The NPS-UDC has identified the Hamilton area (which includes Waipa District) as a high-growth urban area.

The NPS for Urban Development Capacity requires that sufficient land for housing be available for the 'short term', 'medium term' and 'long term' (Policy PA1), and that an oversupply of land be made available (Policy PC3).

The obligations on Council are to ensure that the following is provided for each of these time periods:

- Short term (1-3 years) – development capacity must be feasible, zoned and serviced with development infrastructure. 20% over-supply against forecast is required as a 'high growth' area.
- Medium term (3-10 years) – development capacity must be feasible, zoned and either: serviced with development infrastructure, or; the funding for the development infrastructure required to service that development capacity must be identified in a Long-Term Plan required under the Local Government Act 2002. 15% over-supply against forecast is required as a 'high growth' area.
- Long term (11-30 years) – development capacity must be feasible, identified in relevant plans and strategies, and the development infrastructure required to service it must be identified in the relevant Infrastructure Strategy required under the Local Government Act 2002. 15% over-supply against forecast is required as a 'high growth' area.

The NPS-UDC requires councils to provide in their plans enough development capacity to ensure demand can be met, both in terms of total demand for housing and business land, and also the demand for different types, sizes and locations. Council must give effect to the NPS and this requires some changes in approach in response.

The requirements of the NPS-UDC have driven the need to review the 2009 District Growth Strategy and subsequently Plan Change 5 to incorporate key changes made to the updated Waipa 2050 Growth Strategy into the Waipa District Plan. The requirements of the NPS-UDC have been considered further in the context of the District Plan and Waipa 2050 District Growth Strategy below.

The minimum targets for sufficient, feasible development capacity for housing in the Waipa District area are outlined in Section 1.1.6 in the Waipa District Plan, in accordance with the requirements of the National Policy Statement on Urban Development Capacity (NPS-UDC) 2016, as follows:

| Area | Minimum Targets (Number of dwellings) | | |
|---|---|---|---|
| | Short to Medium term 1-10years (2017-2026) | Long term 11-30 years (2027-2046) | Total |
| Waipā District | 5,700 | 8,200 | 13,900 |

The Structure Plan has sought to contribute to the short and medium term targets by providing capacity for the development of approximately 380 dwellings within the Waipa District.

## 4.3 Future Proof Sub-Regional Growth Strategy

Future Proof was formulated in 2009 and is a combined growth strategy project between five councils (Hamilton City, Waikato, Waipa and Matamata-Piako District's and Waikato Regional Council). It establishes a strategic plan for land use, infrastructure and transportation to plan and provide for the future needs of the sub-region. The NZ Transport Agency is also involved as a major partner, recognising the importance of coordinating transportation planning with that of land use.

Future Proof has guided the development of Waikato Regional Council's Regional Policy Statement, and the growth strategies formulated for the Waikato District, Waipa District and Hamilton City.

The Future Proof Growth Strategy was reviewed in 2017 to incorporate updated population projections, and to allow a re-consideration of some of the growth assumptions. It is also planned to narrow the scope of the Future Proof Strategy to have a stronger focus on growth management and settlement pattern implementation, in line with national policy direction.

The requirements of Future Proof have been considered further in the context of the Waikato Regional Policy Statement, District Plan and Waipa 2050 District Growth Strategy below.

## 4.4 Waikato Regional Policy Statement

The RPS includes a detailed policy framework for the co-ordination of growth and infrastructure and adopting the land use patterns, density targets, and development ambitions of Future Proof.

The RPS provides direction for the management of the resources of the region as a whole. Six key issues are identified, and a range of methods are proposed to address these issues. District Plans are a key method for implementing the directions within Regional Policy Statements.

The Waipa District Plan gives effect to these policy directions as they apply within the Waipa District through:

- The setting of urban limits;
- Requirements for increased urban densities in Deferred Zones and future growth areas;
- Rural land protection;
- Recognition of the significance of key infrastructure networks and sites and the need for integrated land use and infrastructure planning;
- Ecological preservation and enhancement; and
- The health and well-being of the Waikato and Waipa Rivers including the restoration and protection of the relationship of the community and the Waikato and Waipa Rivers.

The Structure Plan will provide for new urban development within Te Awamutu within the urban limits indicated on Map 6.2 (Section 6C) of the RPS and facilitate new residential (including rural-residential) development in accordance with the timing and population growth areas in Table 6-1.

Further, the Structure Plan has sought to achieve compact urban environments that support existing commercial centres, multi-modal transport options, and allow people to live, work and play within their local area. In doing so, development provisions have sought to achieve provisional net development yields which are consistent with the capacities identified in the

Waipa District Plan (Appendix S1) of 432 dwellings (where 380 are anticipated) for T11. These target capacities in Appendix S1 of the District Plan give effect to the Waikato Regional Policy Statement density targets for greenfield development in Te Awamutu/Kihikihi.

The Structure Plan is consistent with the key objectives and policies of the RPS as it will bring forward the development of residential dwellings with a key growth cell in Te Awamutu in alignment with the capacity targets of the Waipa 2050 Growth Strategy and Waipa District Plan which both give effect to the overarching framework in the RPS for the co-ordination of growth and infrastructure and adoption of land use patterns, density targets, and development ambitions.

## 4.5 Waipa District Plan

### 4.5.1 Strategic Policy Framework

Section 1 of the Waipa District Plan outlines the strategic policy framework for the Plan, including key trends, future challenges, national directions, NPS-UDC, Vision and Strategy for the Waikato River, Waipa River Agreement, National Policy Statements, National Environmental Standards, Regional and Local direction, and strategic outcomes sought. It also identifies the key resource management issues for the District and associated Objectives and Policies.

One of the key objectives is to achieve a consolidated settlement pattern that is focused in and around existing settlements of the District, which is supported by policies to ensure that all future development and subdivision in the District contributes towards achieving the anticipated settlement pattern in the Future Proof Growth Strategy and Implementation Plan 2009 and the District Growth Strategy.

The Structure Plan is consistent with the key objectives and policies of the Strategic Policy Framework section in the District Plan as it will bring forward the development of residential dwellings within a key growth cell in Te Awamutu in alignment with the capacity targets of the Waipa 2050 Growth Strategy.

### 4.5.2 Deferred Zone

Section 14 in the District Plan identifies the relevant provisions for Deferred Zones in the District. The introduction for this section of the Plan acknowledges that in order to provide for the District's projected growth; land use in some locations will change over time to accommodate new land uses, such as new residential areas.

These Deferred Zones have an objective, policy and rule framework which generally reflects existing land use and zoning but recognises that the area is intended to change over time. It is anticipated that development in Deferred Zones will occur in a planned and integrated manner through a structure plan process.

The T11 structure plan area has been identified in the District Plan as being suitable for conversion from the current land use to a new land use and is zoned on the Planning Maps as Deferred Residential.

As outlined earlier in this report, the Structure Plan is consistent with the key objectives and policies of the RPS as it will bring forward the development of residential dwellings within a key growth cell in Te Awamutu in alignment with the capacity targets of the Waipa 2050 Growth

Strategy and Waipa District Plan which both give effect to the overarching framework in the RPS for sub-regional growth.

### 4.5.3 Appendix S1 – Future Growth Cells

Appendix S1 in the District Plan identifies the growth cells from the Waipa 2050 District Growth Strategy, all of which have been included within a Deferred Zone in this District Plan to indicate the intended future land use. This includes T11 as Deferred Residential Zone.

The Appendix includes a table with information on the location and extent of each of the growth cells, and a broad timing for each of either 'anticipated now to 2035' or 'anticipated beyond 2035'. This timing for the release of each growth cell is based on growth projections within the Waipa 2050 District Growth Strategy and calculation of available land supply. The indicated timing for the release of each growth cell is intended to provide certainty to the community as to future land supply.

Details of the area and anticipated dwelling capacity within each growth cell are also included within the relevant table in the Appendix, see below:

**Te Awamutu Residential Growth Cells – anticipated now to 2035**

| GROWTH CELL | LAND AREA | OVERVIEW AND CAPACITY |
|---|---|---|
| T1 | 37ha | ▪ This is identified for residential development and has a structure plan in place.<br>▪ The growth cell has a dwelling capacity of approximately 444 dwellings. |
| T3 | 10ha | ▪ This growth cell has been identified for residential development.<br>▪ The growth cell has a dwelling capacity of approximately 120 dwellings. |
| T6 | 168ha | ▪ This growth cell has been identified as a location for non-serviced (water only) large lot residential development, providing an alternative form of living choice to other greenfield developments in Te Awamutu.<br>▪ The growth cell has a dwelling capacity of approximately 504 dwellings and due to the nature of the development and available capacity is expected to be developed over a larger time period than other growth cells. |
| T8 | 62ha | ▪ This growth cell has been identified as a residential growth cell but requires a structure plan.<br>▪ The growth cell has a dwelling capacity of approximately 552 dwellings. |
| T9 | 11ha | ▪ This residential growth cell is subject to a structure plan.<br>▪ The growth cell has a dwelling capacity of approximately 132 dwellings. |
| T10 | 21ha | ▪ This residential growth cell is subject to a structure plan.<br>▪ The growth cell has a dwelling capacity of approximately 252 dwellings. |
| T11 | 47ha | ▪ This growth cell has been identified as a residential growth cell.<br>▪ The growth cell has a dwelling capacity of approximately 432 dwellings and represents an opportunity for housing in proximity to a commercial node which provides necessary social infrastructure shopping / medical etc. |
| T12 | 11ha | ▪ This growth cell is zoned for residential development.<br>▪ The growth cell has a dwelling capacity of approximately 132 dwellings. |
| T13 | 35ha | ▪ The current Te Awamutu Racecourse is identified as a potential future residential growth cell if no longer needed for its current purpose.<br>▪ The growth cell has a dwelling capacity of approximately 420 dwellings. |
| The above growth cells make provision for 375 hectares of residential land, with a dwelling capacity of approximately 2,988 dwellings. | | |

Appendix S1 acknowledges that there will often be infrastructure requirements that will precede land being made available for development. Where Council intends to fund the upfront cost of this infrastructure then it will identify this through its 10 Year Plan (LTP). The 10 Year Plan is reviewed in full every 3 years. Where the infrastructure is not identified in Council's 10 Year Plan, then there may be the opportunity for the infrastructure to be privately funded, subject to a 'Developer Agreement' being in place between the private party and Council.

The Structure Plan is consistent with the future growth cell capacities identified within Appendix S1 of the District Plan

The provisional yields anticipated through the implementation of the Structure Plan are consistent with the capacities identified in the Waipa District Plan (Appendix S1) of 432 dwellings (where 380 are anticipated) for T11. This would help bring forward the development of

residential dwellings within a key growth cell in Te Awamutu in alignment with the capacity targets of the Waipa 2050 Growth Strategy and Waipa District Plan which both give effect to the overarching framework in the RPS for sub-regional growth.

# 5.0 Conclusions

The Structure Plan contained in this report confirms the spatial intent and the Waipa District Plan outlines the procedural requirements to advance the T11 growth cell to the next stage of development.

The Structure Plan provides a level of confidence in a spatial context that the T11 growth cell can be progressed in a manner that is consistent with the Council's strategic direction as set out in Waipa 2050 Growth Strategy and the Waipa District Plan.

The Design Guidelines support the spatial intent within the Structure Plan and will assist in providing guidance for developers, the community and Council with an aim to achieve a high level of quality and consistency in the development.

The Technical Assessments contained in this report demonstrate that the growth cells are suitable for urban development, including preliminary recommendations in respect of three waters infrastructure, transportation, and liquefaction. It is important to acknowledge that these assessments are preliminary in nature and more detailed technical assessments are recommended.

# Appendix 1: Final Structure Plan

# Appendix 2: Final Design Guidelines

# Appendix 3: Final Technical Assessments