
Proposed Waikato District Plan

**Proposed Rezoning from Rural to
Residential – Taupiri Village Expansion
Area**

**Section 32AA Further Evaluation
Report**

17 February 2021

Submitter Number 805

1. Introduction: Purpose of this Report

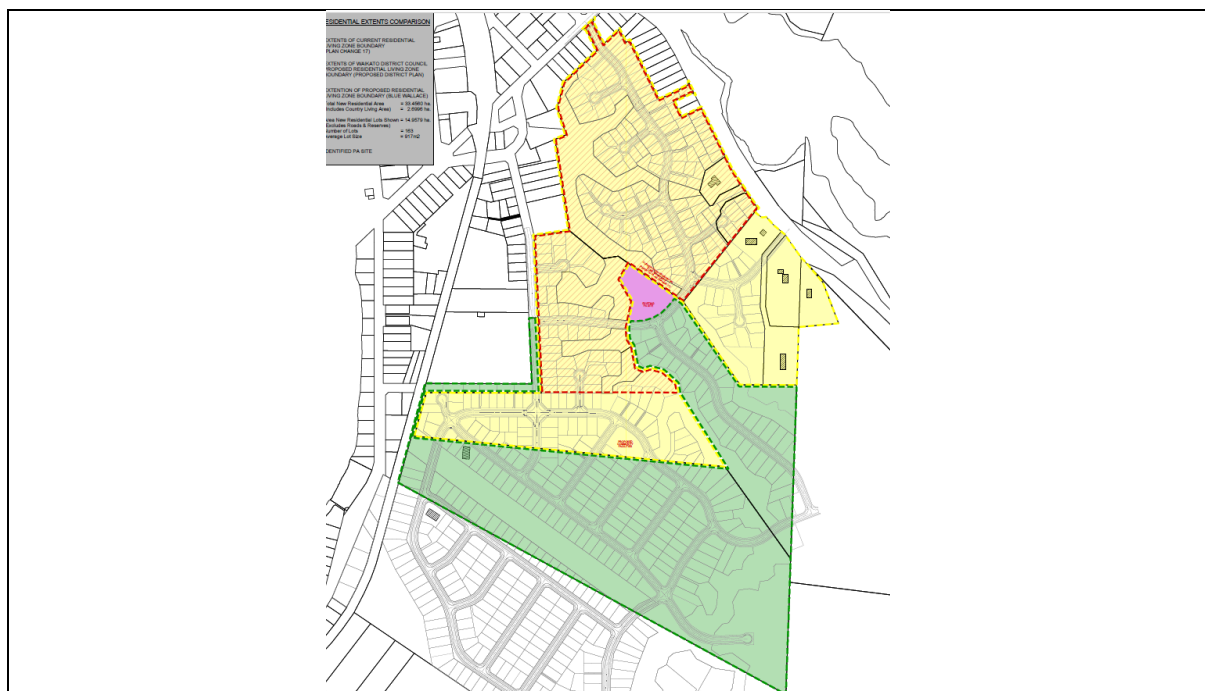
This report presents a further evaluation of a proposed Residential Zone variation to the Proposed Waikato District Plan (PDP) in accordance with Section 32AA of the Resource Management Act 1991 (RMA).

This further evaluation report is required for the changes that have been proposed to the PDP Planning Maps as they related to an expanded Residential Zone to the south of the Taupiri Village. The residential zone expansion area is referred to in this report as the Taupiri Village Expansion Area ('TVEA').

The Section 32AA report has been prepared on behalf of **Submitter Number: 805** and has considered the guidance and direction provided by the Waikato District Council in the Hearing 25 Section 42A Framework Report (Framework Report).

2. Outline of TVEA

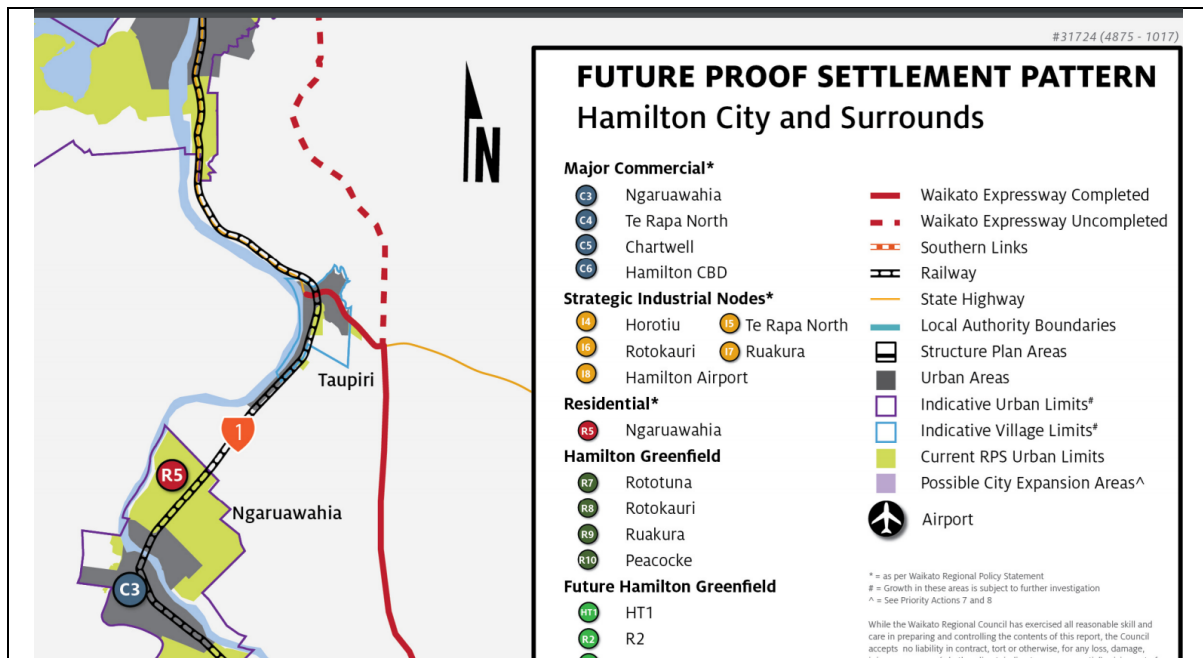
The proposed TVEA sets out to rezone a greenfield growth area identified in the Waikato Regional Policy Statement (RPS) and Future Proof Strategy for urban residential purposes in the PDP. The extent of the rezoning area - and new zone map - is shown below (in Green).



The proposed variation involves rezoning approximately 33 hectares of land to the south of Taupiri Village from Rural to Residential to provide for the District's residential growth needs. The rezoning extent is depicted in the *TVEA Concept Plan and Zone Extents Plan* attached (**Attachment A**).

The proposed rezoning has been subject to topographical and transportation considerations whereby a nett 15ha of land will be made available for residential development – thus a without prejudice indicative yield of 163 residential allotments has been indicated.

The sought rezoning is appropriate from a strategic growth perspective given that it is located on the edge of the PDP Residential Zone (38.3ha), as well as the lands proximity to the defined Taupiri Village indicative limits identified in both Future Proof (November 2017), and Waikato 2070.



In consideration of the relevant policy direction in the PDP - Policy 5.3.8(a) explicitly directs urban forms of development to be “within the boundaries of existing towns and villages”. As noted from the Framework Report, this overarching policy should not preclude the urbanisation of the rural/urban edge to enable the growth of existing towns and villages identified in Future Proof Strategy Planning for Growth 2017. (pg 4 Framework Report).

The TVEA as sought for residential zoning in the PDP is contained within the Indicative urban limits for Taupiri Village. And consequently, the proposal will not be contrary to an overarching policy direction of the PDP.

Three Waters Infrastructure

The Framework Report seeks the S32AA evaluation to consider *infrastructure provision* in regard to the rezoning request’s subsequent S42A Report - in particular, infrastructure servicing.

As stated in the Framework Report “*the infrastructure provision and level of service will generally be commensurate with the rating base that supports it in any given area*”.

In response to infrastructure provision, high-level technical evaluations for Council’s three waters infrastructure have been provided in support of this s32AA evaluation report (See **Attachments B and C**).

In summarizing these high-level assessments, the TVEA can be provisioned with appropriate three waters connections and integration with wider three waters schemes.

Flood mitigation upstream of the TVEA area can be mitigated through conventional means – which furthermore can be applied as a component of any future subdivision design within the TVEA.

Transportation

Submitter 805 contends that the TVEA as sought can be accommodated through the continuation of transportation corridors that have been constructed to the north of the area (Taraheke Drive), and within the section of the submitters land that is currently zoned New Residential.

Roading networks that have been indicatively shown on the applicable structure planning maps (being the *Ngaaruawaahia, Hopuhopu, Taupiri, Horotiu, Te Kowhai & Glen Massey Structure Plan* - March 2017) which have been considered by the Submitter and strategically provided for on the attached TVEA rezoning plan (**Attachment A**).

The 2017 Structure Plan provides the expected structure plan layout for development in Taupiri, which includes two road connections to Te Putu Street via an internal loop road and two connections to Murphy Lane. The east-west link provides a connection from Murphy Lane to Gordonton Road.

The Submitter has engaged transportation engineers in regard to the development of their land immediately abutting (north) of the TVEA, to which assessment recommendations have indicated that the increase in traffic is well within the capacity of the surrounding local and arterial networks.

A significant influence of the TVEA area's traffic effects has been identified in the New Residential Traffic assessment where it notes the Huntly section of the Waikato Expressway being opened in February 2020 with opening of the Hamilton Section expected in 2021. Based on this expressway opening it is understood that state highway status will be revoked from Gordonton Road (currently SH1) and it is likely to revert to a local arterial road following opening of the Hamilton Section; consequently, the traffic volume passing through Taupiri is expected to reduce to 6,000veh/day.

Urban Growth

As indicated in the Framework Report rezoning proposals can be considered with the aid of expert assessments on a range of matters including, provision of three waters infrastructure and strategic growth planning issues, among others.

In addition to the support material for three waters, the submitter has supplemented this s32AA evaluation with a demographic profile and growth projection specific to the TVEA (as prepared by the National Institute of Demographic and Economic Analysis 'NIDEA') – See **Attachment E**.

This report has been provided so as to assist the s42A processing Planner and Hearings Panel in regard to determining the availability of additional residential land in the District, as well as enabling a degree of growth relief to offset the identified residential dwelling demand.

The attached NIDEA Report has been prepared by the Submitter to supplement the s32AA report by highlighting the District's urban growth forecasts – particularly as such growth relates to the Taupiri Region. As provided in the attached report, and aligning with Councils growth projections, short term growth in Taupiri is expected to be upwards of 15% in the next ten years, and upwards of 29% over the next 2 decades.

As indicated above, a significant contributing factor in this population growth projection (relative to Taupiri Village) is that of opening of the Waikato Expressway and the subsequent efficiency in traveling to employment bases in Hamilton and Auckland.

3. The Framework Report

The submitter appreciates guidance provided by the Frameworks Report in so far as a consistent scope of reporting and evaluation can be provided to the Section 42A reporting officer.

As directed in the Framework Report – the three (3) following Areas (or lenses) have been addressed:

Area 1: Relevant Objectives and Policies in the PWDP

A PDP Objective and Policy assessment for the proposed TVEA rezoning was provided within the initial/original 805 submission. It is noted, however, that this assessment applied the objectives and policies of the residential zone to the sought rezoning area which is currently zoned 'Rural'.

Upon review of the Framework Report, advice directs the s32AA evaluation to consider the zone change to the underlying rural zone objectives and policies.

As contained within **Attachment D**, an objective and policy assessment is provided which addresses the applicable provisions of the PDP as recommended in the Framework Report.

Area 2: relevant higher order policy documents or strategies

This area of evaluation has been identified as necessary in the Framework Report to confirm whether the outcome of submission 805 would give effect to and/or be consistent with the other relevant higher order policy documents or strategies.

The following high-level documents have been identified in the Framework Report.

NPS-UD

The recently gazetted National Policy Statement on Urban Development 2020 (NPS-UD) requires Tier 1 Territorial Authorities (Such as Waikato District Council) to have residential demand +20% plan-enabled, infrastructure-ready and feasible, allotments for supply within urban environments.

The TVEA is within the jurisdiction of a Tier 1 TA and can offset residential land demand shortfalls (as identified by Council's growth projections).

Every tier 1 TA must amend its district plan to give effect to the provisions of the NPS-UD as soon as practicable.

The S42A Report's recommendation to accept the TVEA will assist in Council meeting their statutory obligations under the NPS-UD.

The Vision and Strategy for the Waikato River

The Vision and Strategy for the Waikato River has been prepared by the Waikato River Authority and is a high-level policy document centring on the improved health of the Waikato River.

Whilst the TVEA is, at its closest point approximately 200m to the east of the Waikato River (separated by residential land use, section of rail corridor and Great South Road), the natural gully system has an indirect connection to the river at a catchment level.

In response to the Vision and Strategy for the Waikato River the TVEA will see the removal of livestock from within the section of gully network, thus aiding in 'cleaning up' agricultural effluent and minimising such nutrients from entering the river (via overland flow and leaching to groundwater).

Land use to the north of TVEA has changed from rural to residential land use, whereby such development has advanced through appropriate stormwater quality management. A continuation of such water quality and attenuation has been demonstrably proven in the northern new residential Zone (I.e., Murphy Land and Taraheke Drive) – which can be emulated without risk in the TVEA.

By mitigating the effects of dairy derived nutrients entering the section of Waikato River, then the high-level strategies will be appropriately adhered to through Council's recommendation to accept the TVEA rezoning as sought.

The Waikato Regional Policy Statement

The comprehensive submission for the TVEA addressed the applicable Objectives and Policies of the WRPS.

In particular objectives 3.12 and 3.16 were discussed, as well as Policies 6.1 (6.1.1, 6.1.2, 6.1.7, 6.1.8), 6.3, 6A and Policy 8.3.

Map 6.2 of the RPS shows the urban limits of the Taupiri Village. Such limits align with the TVEA and consequently are reflective of the Future Proof Indicative Urban Limits.

The submitter notes that, Pursuant to the RMA, district plans must give effect to an RPS (ss75(3)). This means that the PDP must contain policies and rules that implement the policy direction set by the RPS.

A recommendation to accept the TVEA rezoning will not be inconsistent to the applicable RPS objectives and policies, hence the TVEA is appropriate to be included within the PDP.

Waikato-Tainui Environmental Plan

In consideration of the Waikato-Tainui Environmental Plan (TEMP), the document contains applicable guidance on both cultural and land use management planning matters.

Salient to the proposed TVEA rezoning is page 218 of the TEMP, where it states:

“The pressure for urban development plus the increasing urbanisation of rural land is putting pressure on natural resources - land, air and water. In order to protect these resources, there needs to be tight management of urban growth to prevent urban sprawl and restrictions placed on continuing rural lifestyle subdivision.”

In response to this issue, the applicable objective and policy set states:

25.3.1 Development principles are applied to land use and development (urban and rural) and, in particular, development in new growth cells, that enhance the environment.

and

25.3.1.1 To encourage development principles to be applied to land use and developments (urban and rural) and, in particular, development in new growth cells, that enhance the environment.

As maintained throughout this TVEA s32AA evaluation, the sought rezoning is within the identified growth area of Taupiri Village. Land development to the north of the TVEA (currently zoned New Residential) has been underway since 2017 and has resulted in the creation of residential land use parcels that have enhanced the natural and significant cultural environment.

As indicated above, the culturally significant heritage site ‘Taraheke Paa’ has been clearly delineated to the north of the TVEA. As this registered archaeological and culturally significant site is currently ‘land-locked’ within private land, access and protection of the feature has not been provided for.

With the rezoning of the land surrounding the feature to residential, protection in perpetuity and access to the site will be enabled.

The Submitter has maintained positive and meaningful relations with Mana whenua (Taupiri Marae) regarding the Taraheke Paa site; with such relationships expected to be maintained as a consequence of a recommendation to accept the rezoning as sought.

In response to the above objective and policy set – the TVEA will enable much needed residential land to be made available, whilst simultaneously providing demonstrable assurances to all stakeholders as to that land’s social, cultural, economic and environmental enhancement.

Through recommending accepting the TVEA rezoning, Objective 25.3.2 and Policy 25.3.2.1 will be given effect to as the area will be well planned regarding cultural, spiritual and social outcomes. Removing the land from rural land use will also provide positive environmental and cultural outcomes.

Specific adherence to the TEMP will be provided through refined design and assessment criteria of the PDP activity and performance standards.

The National Planning Standards

The National Planning Standards (NPS) came into effect in 2019 which was after the notified version of the PDP, as well as the initial submission regarding the TVEA.

The TVEA has been proposed to rezone an area of rural land to that of residential. The intent of the initial submission was to identify areas whereby residential, commercial and Country Living zones could be applied.

Notwithstanding the initial submission, and remaining in scope of the initial submission, the TVEA has now been limited to be rezoned only to Residential, and thus to cater predominately to residential land use.

Under the National Planning Standards, such zoning is to be defined as “General Residential Zone’. A description of this zone in the NPS is:

“Areas used predominantly for residential activities with a mix of building types, and other compatible activities.”

The TVEA as currently sought for rezoning to Residential will meet and enable land use description of the NPS. Allotments can be provided for residential land use whilst also providing for a mixture of building types and other compatible activities (such as parks and reserves, home base industries, ancillary residential units etc.).

Future Proof Strategy Planning for Growth 2017

Future Proof is the growth strategy plan specific to the Waikato District, Hamilton, Waipa, and Waikato sub-region and has been developed jointly by Waikato Regional and Territorial Authorities.

As a component of the TVEA s32AA evaluation, Future Proof has been considered in the initial PDP submission – where it states:

“Upon comparing the TVEA as advocated within this submission with the indicative urban limits identified in Future Proof, a consistent growth pattern is identified and hence strategically provided for.”

As indicated in the image above, the TVEA aligns with the urban limit boundaries indicatively shown within the Future Proof, and furthermore has been identified as one of the district’s growth areas in which the Future Proof Strategy seeks to achieve around 80% of the district’s growth (i.e., Pokeno, Tuakau, Te Kauwhata, Huntly, Ngaruawahia, Raglan and various villages).

A key driver behind the Future Proof Strategy is to maintain control of development patterns across the district, and to avoid the adverse potential effects of ad hoc private plan changes.

Growth projections within the current iteration (2017) of Future Proof are currently being reconsidered under a review of the strategy. At the time of this s32AA evaluation the results of this review are unknown.

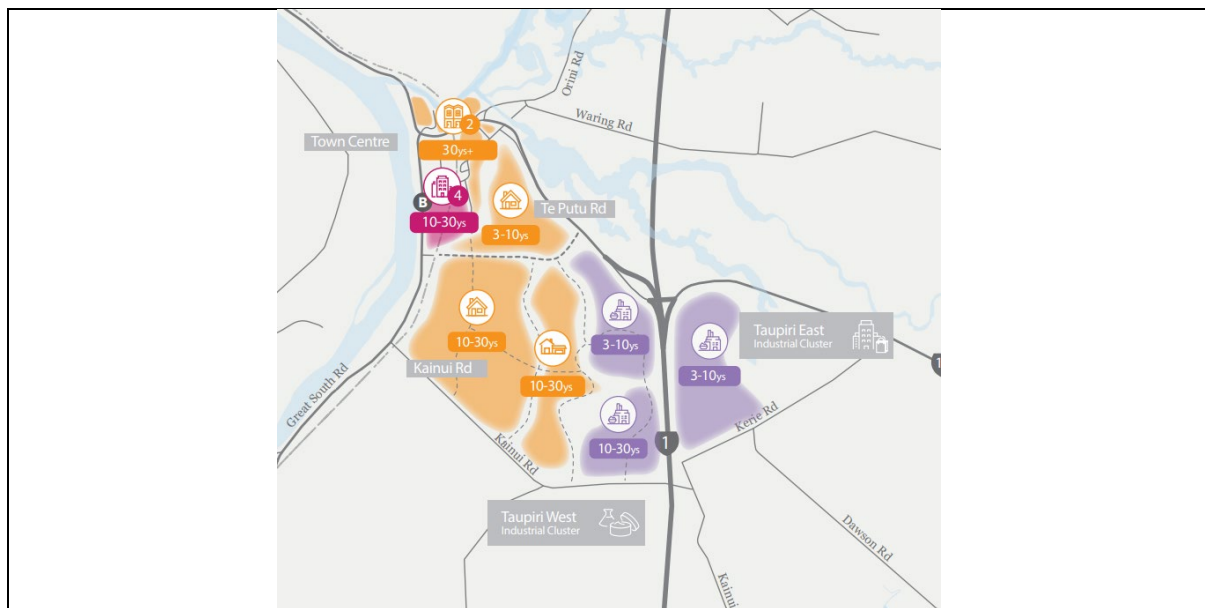
Notwithstanding this review, growth projects that have been undertaken by Council - as well as independently by the submitter - are clear in that the amount of residential land 'earmarked' under the PDP falls short of what is required – hence, there is not expected to be any reduction to indicative urban limits of the Taupiri Village. Consequently, the urban limits currently identified in the 2017 iteration of Future Proof are still applicable – particularly regarding the TVEA aligning with this urban limit growth area.

Waikato 2070

In consideration of the Waikato 2070 (Waikato Growth and Economic Development Strategy) it is noted that the Taupiri Village - inclusive of the TVEA - are captured under the desired growth projections of the next 10-30 years.

The combination of long-term residential land use growth (indicative) with an economic strategy defines the purpose and intent of Waikato 2070. The strategy has also been prepared in part to assist in delivering the aforementioned Future Proof Strategy.

As taken from the Waikato 2070 document – the TVEA is contained within the 50-year Taupiri Development Plan.



Implementation of the Waikato 50-year growth strategy has been identified via a number of management plan approaches and the formation of key partnerships. One such implementation approach regrading growth cells is that of preparing a structure plan for the area.

As noted in the initial TVEA submission, as well as above regarding transportation, the Ngaruawahia, Hopuhopu, Taupiri, Horotiu, Te Kowhai & Glen Massey Structure Plan - March 2017 has been prepared and is applicable to land immediately to the north of the TVEA.

The principle behind the TVEA is an ‘expansion’ to the residentially zoned land to the north with the effects, design, and amenity guidance contained within the March 2017 Structure Plan to be applied throughout the additional 33ha TVEA.

In consideration of Waikato 2070 implementation, the TVEA has already been, indirectly, subject to a robust publicly driven structure planning process.

Area 3: good planning practice zoning criteria

The third evaluation lens identified in the Framework Report is that of good planning practice criteria.

As with much of the Framework Report, guidance has been presented in regard to what exactly is meant by “good planning practice” – to which the following elements have been provided:

Economic costs and benefits

Costs and benefits of TVEA have been identified below in **Table 2** below.

Take into account the issues debated in recent plan changes.

The most recent and applicable plan change to the TVEA is Plan Change 17 (PC17).

A central driver for the Council initiated PC17 was the potential impacts of sporadic residential development being pushed through Council via private plan change applications. In response to this pressure, Council made the decision to direct future residential growth areas in and around Huntly and Ngaruawahia – with the result being the creation of the ‘New Residential Zone’.

The decision undertake PC17 in advance of the District Plan Review process is relevant to TVEA in that Council and the community has identified the need for additional housing stock, and consequently that the current level of residential land supply was inadequate.

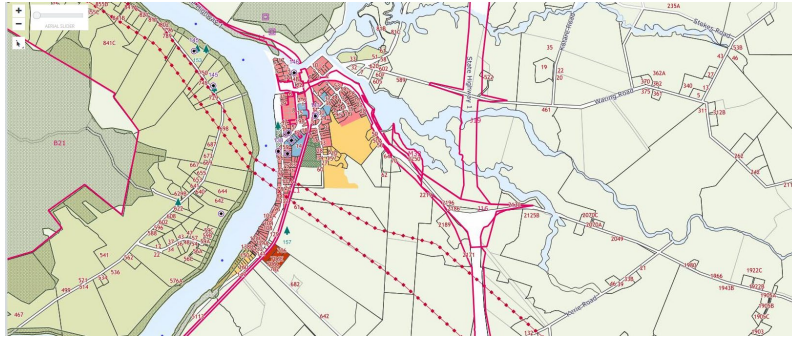
Taupiri Village was identified as being one of the PC17 ‘pockets’ of land that could accommodate this residential growth, which in doing so has unlocked the areas growth potential. This potential has been further enhanced by the opening of the Huntly section of the Waikato Expressway whereby efficiency on transportation to the area has underpinned the TVEA desirability for residential uptake.

Planning map consistency

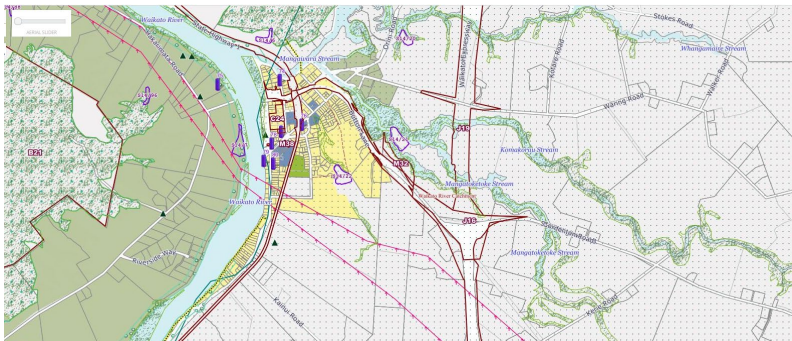
Development within the TVEA is not significantly constrained by planning map notations and policy overlays.

Of the annotations shown on the Operative, Proposed and Proposed Stage 2 Planning Maps the TVEA is affected by 2 sections of Transpower (National Grid) transmission lines and support structures; Archaeology Association registered site S14/22 (being a Site of Significance to Maori – Taraheke Paa); Significant Natural Area (section of gully network).

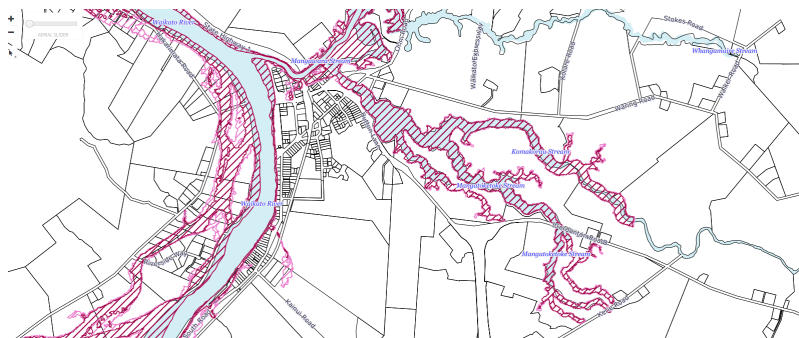
As presented in the images below, the currently zoned residential land already contains the above annotations and policy overlays (particularly the proposed District Planning Maps).



Operative District Planning Map



Proposed District Planning Map



Proposed District Planning Map (Stage 2)

The TVEA as sought is not expected to present significant inconsistency with the applicable planning maps. Management of the planning features can be undertaken through the applicable consenting process as would already be the case in Taupiri's already zoned residential areas.

Site features

The area is almost 1km south of the Taupiri roundabouts on State Highway 1 (SH1) and is flanked by the Waikato River, approximately 200m to the west and the Komakorau Stream to the east.

The Site is located approximately 700m to the south east of the Taupiri Township. To the north of the area are sports fields (and car parking areas) associated with rugby fields (x3) and netball courts (x8). A skate park is also located to the north west. A sports clubroom, and associated carpark, is located at the southern head of Murphy Lane immediately to the north of the TVEA.

The TVEA will contain the archaeological site (Taraheke Paa). This historic feature already influences development to the north in the residential zone – with any such development being undertaken in

consideration of the *Heritage New Zealand Pouhere Taonga Act*, as well as mana whenua (Taupiri Marae).

Land contained within TVEA consists of gently rolling paddocks and a moderately incised gully system (3m-6m high), with several ephemeral tributaries which runs through the site. The land is currently in use as part of a dairy farm, and hence is dominated by livestock grazing, fencing and farm races.

The land contains some residential dwellings (2) associated with the current farming operations, as well as the farm's milking sheds (northern section of the TVEA).

Geotechnical investigations for land immediately to the north of the expansion area have identified that the land is underlain by various alluvial soils typical to those south of Taupiri. Near surface soils (again immediately to the north of the TVEA) are described through geotechnical investigations as consisting of cross-bedded pumice, sand, silt and gravel with interbedded peat layers of the Hinuera Formation.

The landform is consistent with land to the north (currently zoned residential in the Proposed District Plan) and has an elevation generally of 16m. To the south east corner of the TVEA, the topography changes to an elevation of up to 25m.

Infrastructure (e.g., water, wastewater, stormwater, roads)

Matters pertaining to three waters and transportation infrastructure have been discussed above.

See **Attachments B** and **C** for technical information regarding water supply, wastewater management and stormwater.

Incompatible land uses

The TVEA will not abut heavy industrial land use.

To the north of the area is residentially zoned land, to the south of the area is rural land use.

National Grid setbacks will apply in regard to the sections of transmission line that cross through the TVEA (note: NZECP34 and National Grid setbacks will be managed through any future consenting process in consultation with Transpower NZ).

Clearly defensible zone boundaries

Roading within the TVEA has been indicatively shown on the conceptual scheme plan underlay.

The TVEA is bound by a section of Great South Road to the west, and State Highway 1 (and 1b) to the east.

The TVEA is considered to have clearly defensible zone boundaries.

Zone boundaries to follow property boundaries

The TVEA boundary is contained within the submitters land holding.

The northern extent of the TVEA will be amalgamated with the PDP Residential Zone, with the southern extent of the rezoned area aligning with the cadastral boundary of Record of title SA9D/875.

The eastern boundary of the TVEA abuts land owned by the co-submitter (St Isadore Company Limited).

Spot zoning

Spot zoning is not applicable to the TVEA as by its very nature is sought to extend the area's existing and proposed residential zone.

Existing resource consents and existing use rights

There are no identified resource consents or permits applicable to the land within the TVEA (i.e., Subdivision, land use, water takes, discharge consents).

It is noted that there is a consent application currently before the Waikato Regional Council in regard to soil disturbing activities to the south east of the TVEA.

Subdivision consents are held by the landowner regarding the subdivision of land to the north of the TVEA.

The existing land use within the TVEA is rural production (dairying).

The effect of approving the sought rezoning will not unduly compromise existing resource consents or the landowner's willingness to convert farmland to residential land use.

4. Evaluation Conclusions

This report has undertaken a further evaluation of the Rezoning request identified as the Taupiri Village Expansion Area request by Submitter 805 to the Proposed Waikato District Plan Planning maps in terms of Section 32AA of the RMA.

This evaluation concludes:

- That the objectives and policies of the residential zone will not be impacted upon by the TVEA and therefore the proposal will be consistent with the purpose of the RMA as they provide a balance between providing for growth in the Taupiri Area whilst maintaining and enhancing the core environmental values.
- Recommending to approve TVEA will be consistent with the matters set out in Sections 6 and 7 of the RMA. In particular it will provide for the efficient use of the land resource and maintain and enhance the amenity values and quality of the residential environment.
- The proposed rezoning of the TVEA will be consistent with the applicable structure plan that underpinned PC17, Strategic Growth Strategies such as Future Proof and Waikato 2070 as it will consolidate development contingent with Councils residential expansion identified in the PDP whilst enhancing the village character of Taupiri, providing public access to the areas gully areas and culturally significant Taraheke Paa site, and enhancing the hydrological and ecological values of the area.
- The provisions for the residential zone already presented in the PDP can be adhered to by the future development opportunities within the TVEA. The proposed rezoning is fairly and reasonably considered the most appropriate means of achieving the strategic growth and residential objectives of the PDP as the TVEA will enable a future proofed framework which will ensure that the development of the area is consistent, enduring, comprehensive, integrated and efficient in its layout and form.

RMA s32AA Evaluation

Table 1: Rezoning Proposal

<i>The specific provisions sought to be amended</i>	<i>Assessment of the efficiency and effectiveness of the provisions in achieving the objectives of the Proposed Waikato District Plan (PDP)</i>
The rezoning proposal	<p>This rezoning proposal relates to an area of approximately 33.4ha which is held in Record of Title 866142 and SA9D/875.</p> <p>The proposal seeks to rezone land that is currently zoned Rural, to Residential General in the Proposed Waikato District Plan.</p> <p>A considered approach has been undertaken when submitting upon the rezoning proposal, whereby natural, physical and cultural resource matters have been taken into account so as to enable an indicative subdivision design and allotment yield to be presented.</p> <p>In total an estimated 163 residential land use titles can be contained within the Taupiri Village Expansion Area (TVEA).</p> <p>The reasons presented in the submission for the sought rezoning generally stem from that land, subject to the submission, being in ownership of the submitter. Equally as relevant is the recent Plan Change 17 (PC17), and the affect the subsequent residential rezoning had on the submitters land - where significant areas were rezoned from Rural to New Residential in the Operative Waikato District Plan.</p> <p>Given the experience (in developing land within the PC17 envelope), and landowner willingness – a continuation of this residential rezoning is being sought contiguous and to the south of the currently zoned New Residential Zone.</p> <p>The rezoning as sought provides for a variety of residential lot sizes which reflect the topography and landscape character of the TVEA site within a proposed single underlying residential land use zone.</p>
Relevant objectives of the PDP	<p>The relevant objectives and policies to this rezoning submission are contained with Attachment D.</p> <p>Direction for the identification of these objectives and policies has been provided by Council’s Framework Report.</p>
Scale and significance of the rezoning proposal	<p>The spatial extent of the rezoning request consists of an area of 33.4ha. As provided for, a conservative estimate of residential allotment yield is 163 above and beyond that could be provided in the PDP residential (38ha) and Operative District Plan New Residential area (22.9ha) to the north.</p> <p>The rezoning of rural land being sought is considered to be significant at both a district level, as well as a national level. Demographic assessments (commissioned by the submitter and as attached – Attachment E) for the Taupiri area have indicated that more land is to be made available to accommodate projected growth over the next 20 years. Whilst this timeframe is outside of the ‘life’ of the impending PDP, interim population growth has been identified as being consistent across the Waikato District – thus guaranteeing demand on residential properties in the Taupiri area.</p> <p>The TVEA rezoning is within an area that can be defined as abutting the Auckland Hamilton growth corridor whereby such significant (national) infrastructure development (I.e., Huntly bypass section of the Waikato expressway) has opened up strategically planned residential growth areas, such as Taupiri. Development opportunities in the Taupiri area provide pressure relief to the Auckland housing market by enabling a more reasonable and efficient commuting option for land abutting the Waikato expressway.</p> <p>As discussed above in this evaluation report, it is considered that the sought TVEA rezoning aligns with higher order documents such as the NPSUD, Future Proof and the Waikato Regional Policy Statement. Comment in this high-level strategic policy assessment has been provided in the TVEA submission that was presented to Council.</p> <p>The sought residential zone extension aligns with the anticipated outcomes for the Taupiri Village (as indicatively determined in Future Proof), with appropriate acknowledgement being given to of the effect of the Huntly Bypass section of the Waikato Expressway.</p> <p>Under the preceding Plan Change 17 Process a clear expectation to Taupiri’s residential land use expansion has been presented to the Waikato District’s community and infrastructure providers.</p>

	<p>Development within the PC17 'New Living Zone' is already underway – with the TVEA being able to align with the already residential (developing) character and amenity of the Taupiri area.</p> <p>The proposed rezoning will enable a variety of lot sizes, with a greater density than provided for by the current zoning but will be consistent with the current density of the surrounding area to the north. The sought rezoning will enable the comprehensive development of the land in a way that is consistent with its landscape character and will contribute positively to the integrated and continued growth of the Taupiri Village.</p> <p>There are no significant Matters of National Importance associated with the sought rezoning. This is primarily because of the location of the site, where it is bound on all sides by rural (south) and residential development (north).</p> <p>Sections of gully networks runs centrally to the site – however, such gully networks are (in the case of the existing New Residential Zone) or can be protected from development as has been proven by land use development to the north of the rezoning area.</p> <p>Wetland enhancement and building line limits protect sensitive ecological areas contained within the gully networks, with the land conversion (rural – residential) removing the presence of stock from the gully areas; thus, presenting an environmental positive effect from the sought TVEA rezoning.</p> <p>There are no outstanding natural landscapes or features associated with the site.</p> <p>The site does not contain any significant indigenous vegetation; however, to the north of the site (within sections of the bisecting gully) habitat for indigenous fauna has been identified. As a component of residential development in close proximity to this habitat (for Black Mudfish) restoration has been provided. In regard to habitat protection, active management can be applied in the area as a component of future residential development.</p> <p>The wider TVEA area does not contain any known waahi tapu or other taonga; however, it is noted that the northern extent of the rezoning area contains the culturally significant site of Taraheke Paa. As a component of this feature, discussions with Mana Whenua (Taupiri Marae) have been undertaken in consideration of surrounding residential development – with support for such development being provided subject to the vesting and protection of the Paa site within a public reserve.</p> <p>Structure planning has already been undertaken indirectly for the TVEA whereby strategic transportation integration has already been considered. No strategic implications to the immediate of wider transportation network have been identified.</p> <p>No adverse implications in terms of infrastructure servicing such as wastewater, water supply and stormwater have been noted. Engineering advice in this regard has been attached to this evaluation reporting for the sought residential rezoning.</p> <p>No limitations to future growth in the area have been noted.</p>
<i>Other reasonably practicable options to achieve the objectives (alternative options)</i>	<ol style="list-style-type: none"> Alternative 1: Include mixed use land use zoning including Industrial, Business Zone Alternative 2: Rezone the Land to large Lot or Country living zone Alternative X: Do nothing option

Table 2: Benefits and Costs Analysis of the TVEA Rezoning Proposal

Rezoning Proposal		
To rezone an area of 33.4ha from rural to residential and to have the expanded residential zone presented on the subject PDP Planning Maps		
	Benefits	Costs
General	<p>The proposed rezoning has been presented to the hearings panel through a comprehensive submission process.</p> <p>Land immediately to the north of the TVEA has undergone recent residential development which aligns with the current 'New Residential' land use zoning. The land subject to the sought rezoning is</p>	<p>The TVEA will enable a higher density of urban development to occur.</p> <p>The increase in residential land use will incur an increase of Council services in regard to servicing the land once operational.</p>

	<p>contiguous with already zoned residential land in the PDP – and furthermore is of a similar landform and environmental setting of land that has been demonstrably been proven to accommodate residential land use.</p> <p>The land presents itself as suitable to accommodate future growth needs for the Waikato District, and has been strategically 'earmarked' for urban development in Waikato's Future Proof settlement pattern.</p> <p>The TVEA will enable land use development that is consistent with the PDP objective and policy direction, whilst also realistically enabling residential development that adheres to the applicable performance criteria of both the Operative and Proposed Waikato District Plans.</p> <p>No amendments to the proposed objective and policy direction of the PDP will be required as a result of accepting the sought TVEA rezoning.</p>	<p>Existing residents of the Taupiri community will experience costs derived from increased construction activities, additional traffic, and changes to their current levels of amenity from the abutting rural zone.</p>
Environmental	<p>The proposed rezoning will ensure a functional high quality living environment can be achieved for the wider Taupiri neighbourhood.</p> <p>New development within the TVEA will be sympathetic to the surrounding environment and will complement it, particularly the interface with the areas section of gully network.</p> <p>The rezoned residential land as proposed can achieve a safer public environment through increased opportunities for passive surveillance of the street and site frontages for residents.</p> <p>The land to be rezoned can provide allotments that will be able to align new front and side setback performance standards – hence will be able to align with the PDP criteria without and special considerations being required.</p> <p>The TVEA will increase opportunities for improved residential character and on-site amenity, whilst simultaneously enable ecological and cultural significance be appropriately protected or otherwise enhanced (i.e., gully rehabilitation).</p> <p>The increase in residential land use in Taupiri will assist in revitalising local clubs and community groups – hence representing a social benefit.</p>	<p>Development within the TVEA will bring residential land use in closer proximity to any existing ecological habitat contained within the area's section of gully network; hence a potential ecological cost has been identified.</p> <p>Without appropriate safeguards, specialist input or management regimes in place, such ecological areas could potentially be adversely impacted (directly or indirectly).</p> <p>Increases in residential land use will bring 'new people' into the established Taupiri community.</p> <p>The arrival of new people into the area may be perceived negatively by more established residents of the area, and hence represent a social environmental cost.</p>
Economic Growth	<p>The Residential Zone extension provides for resident's economic growth and employment through home occupations, working from home, community and commercial facilities and building and subdivision construction, but in a manner that protects the Residential Zone standards as contained within the PDP.</p> <p>The TVEA will see extensions to Council-owned and non-Council owned infrastructure which will facilitate the wider Taupiri Village economic growth.</p>	<p>Extending and increasing residential, community and commercial land use capacity in the Taupiri Village will further increase costs to Waikato District Council through operational and maintenance costs. Such costs are met by the community through rates and the possibility for rates increases.</p> <p>Development contributions, maintenance bond periods, and capital expenditure will need to be borne by the Developer.</p> <p>Future consenting and monitoring costs will be attributable to giving effect to the TVEA.</p>

	Through enabling residential growth in Taupiri, local business will receive an increase in local custom – again with economic benefit to the local community.	
Employment	<p>Due to the location of the Taupiri Village and access on to the section of Waikato Expressway convenience is noted in regard to commuting to employment centres of Auckland and Hamilton. Such an expansion of the Waikato District's residential zone in the TVEA will hold economic advantage in regard to the broader employment market.</p> <p>Enabling further residential growth in the TVEA will provide incentives for local service and product providers to invest in the area. Such economic incentives will further enhance employment opportunities to the local area(s) – inclusive of Huntly and Ngaruawahia.</p>	No employment costs have been identified in regarding the TVEA rezoning as sought.
Cultural	<p>The TVEA zone change has been prepared in consideration of the Significant Site of Significance to Iwi identified as the Taraheke Paa.</p> <p>This culturally significant site is located centrally within the TVEA – with the rezoned land allowing access to, and protection of the site.</p> <p>The site is currently land-locked within private land – the rezoning of the land will provide for better recognition of the site, as well as its protection in perpetuity through the vesting of reserve.</p> <p>Development within the TVEA will be required to adhere to applicable and standardised accidental discovery protocols.</p>	<p>Disturbance to unrecorded sites and artifacts significant or of interest to iwi may occur as a result of land use development within the rezoned area.</p> <p>Unless appropriate water quality management is integrated in to TVEA associated development – adverse effects to water may be experienced.</p>

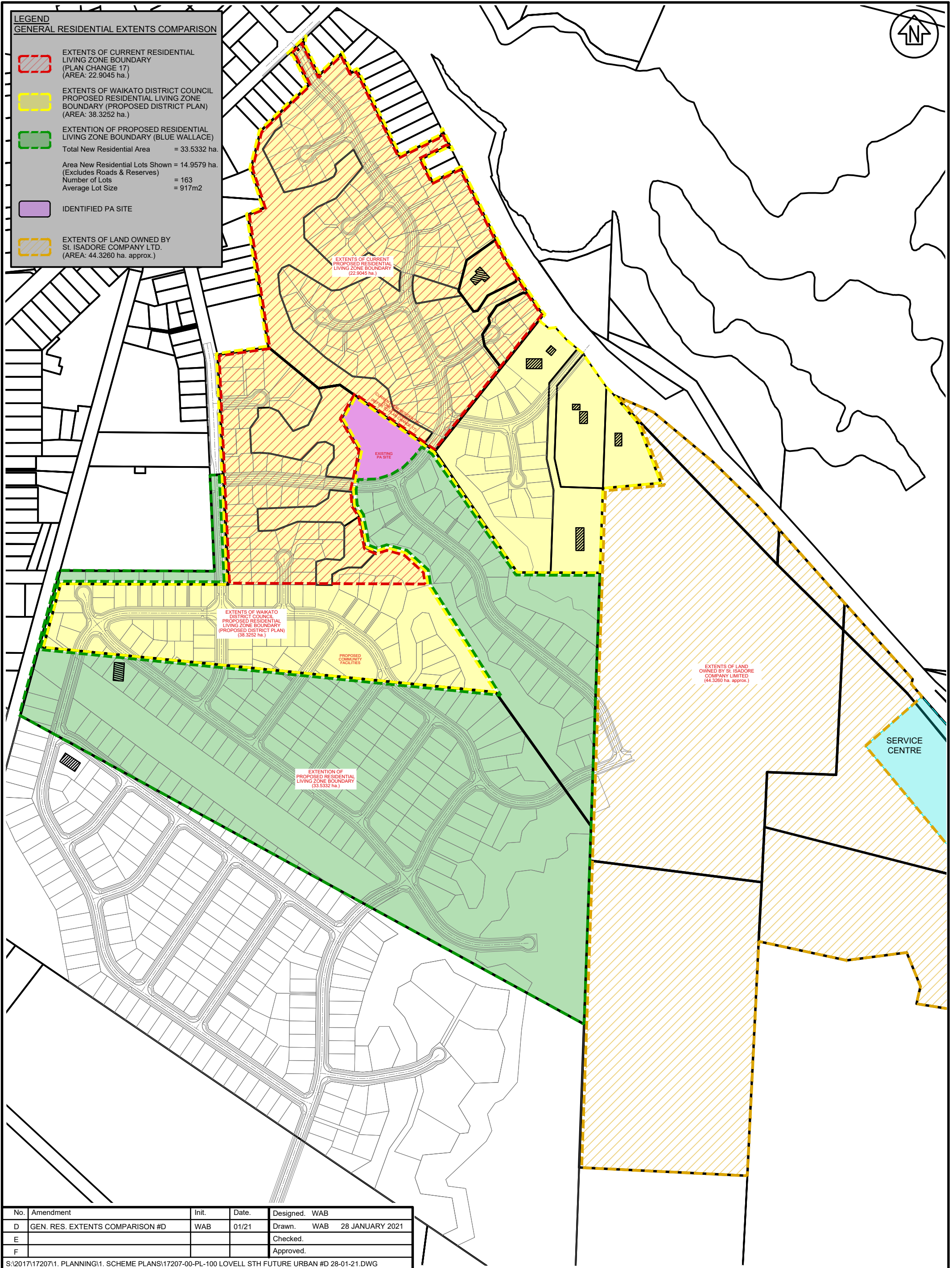
Table 3: Evaluation of the proposal

<i>Reasons for the selection of the preferred option.</i>	<p>Upon balance of the costs and benefits discussed above, the TVEA has been considered to comprehensively enable development at a density and scale provided for under the provisions of the PDP.</p> <p>Mechanisms and performance standards applicable to the District's residential zone can apply unhindered to the TVEA land (as evidenced in the Attachment A conceptual scheme plan), with any environmental effects (adverse or positive) being able to be effectively managed under the probable consenting regime that would apply under the PDP.</p> <p>The primary reason for selecting the preferred TVEA option (being to rezone additional land in Taupiri from Rural to Residential) is the effect of the Waikato Expressway offering effective transportation options, as well as the ability of land to be provided to offset identified shortfalls in residential land for future population growth within the Waikato District.</p> <p>Converting the TVEA to a large lot rural/residential use (i.e., Country living) is not considered to be an effective use of land in consideration of the future proof considerations that have been identified for Taupiri Village, as well as the strategic provision for three waters infrastructure to the area intended to provide for the projected residential land use.</p> <p>The option to provide for mixed land use was considered in the initial submission for the TVEA; however, given higher-level strategic direction (i.e., Waikato 2070), as well as the</p>
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	<p>Council's desire to maintain a central business zone for Taupiri, this option was not considered appropriate for further advancement at this stage of the District Plan review.</p> <p>The 'do nothing' option has been considered – however, based on the benefits identified above, the 'do nothing' approach is not being pursued.</p> <p>Of the three alternative options, the balancing of costs against benefits against the preferred TVEA rezoning carries a greater benefit from a strategic growth management perspective, as well as the ability of the TVEA to integrate effectively of the objective, policy and performance standards of the Residential Zone (as provided in the Operative and Proposed Waikato District Plans); assessment against the relevant Objectives and Policies is provided as attached to this evaluation report.</p>
<p><i>Extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of the RMA.</i></p>	<p>The proposed rezoning on the TVEA site will enable efficient development of the land such that it is able to be representative of a physical resource for the purpose of the Resource Management Act (1991) – Part 2(s5).</p> <p>The site is bounded on the north by residentially zoned land that is progressively being developed. The west and east of the land are sections of regionally significant transportation corridor (Great South Road and SH1B), and rural land use to the south.</p> <p>The current areas of Rural zoned land within the subject site is similar in topography, vegetation cover, landscape values and use to adjacently zoned Residential zoned land to the north. The land sought for residential zoning under the TVEA can best achieve conformity with the existing pattern of development to the north subject site.</p> <p>Extending an underlying residential zone for the subject site represents sustainable management as such zoning can (demonstrably) manage the natural and physical resources of the site in a way that enables the Taupiri community to provide for their social, economic and cultural wellbeing, while sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations.</p> <p>The proposed rezoning regime protects the land resource for future generations in that land south of the TVEA will also allow for expansion if and when required. As contained within the Attached conceptual scheme plan, an area south of TVEA has been overlain with roading and allotment layouts that will be preserved for future generations – thus considering 5(2)(a) of the RMA.</p> <p>The sought rezoning to Residential provides for a range of lot sizes and housing typologies, while respecting the context of the site, retaining open space and rural amenity values to the south of the site. This approach ensures that potential effects on the environment can be effectively avoided, remedied or mitigated, and thus meeting s5(2)(b)&(c) of the RMA.</p>
<p><i>Assessment of the risk of acting or not acting if there is uncertain information about the subject matter of the provisions.</i></p>	<p>The submitter for TVEA considers that adequate information has been provided to the Hearings Panel in support of the sought zone change.</p> <p>The Submitter and their technical advisors have had significant involvement and experience in providing a suitable environment for residential land use to the north of the TVEA – with such an environment being provided through detailed site investigation reporting, hazard management, infrastructure provision, cultural and heritage assessments, as well as ecological investigation and rehabilitation (of the areas gully network).</p> <p>Much of the experience gleaned from the residential development within the PC17 New Living Zone (abutting land to the north) has been brought to bear in regard to the TVEA rezoning submission. In addition to this experience, further details regarding three waters provision and population growth projections have been provided with the submission so as to adequately assure Council's s42A processing planner, and the Hearings Panel of the suitability of the rezoning as sought.</p> <p>The level of experience in residential land use development to the north of the TVEA, as well as the submissions supplementary technical reporting, presents a low risk for the sought decision by Council.</p> <p>Of the potential risk that may arrive, but is yet undetermined, it is reasonably considered that appropriate mitigations can be provided – with such matters to be detailed as a component of the consenting process that will apply in the TVEA.</p>

	The basis for the above risk determination is the similar/contiguous landform and physical environment to the north of the site to which the TVEA land abuts to the south.
<i>Conclusion</i>	<p>The conclusions reached under this further TVEA evaluation under s32AA of the RMA have been specified above.</p> <p>Such conclusions summarised are:</p> <ul style="list-style-type: none"> • That the objectives and policies of the residential zone will not be impacted upon by the sought rezoning. • Recommending to approve the TVEA will be consistent with the matters set out in the purpose - and Sections 6 and 7 of the RMA • The TVEA will be consistent with the applicable structure plan and the District's (and Region's) strategic growth documents. • The provisions for the residential zone already presented in the PDP can be adhered to by the future development opportunities within the TVEA.


Attachment A: TVEA Concept Plan and Zone Extents



No.	Amendment	Init.	Date.	Designed. WAB
D	GEN. RES. EXTENTS COMPARISON #D	WAB	01/21	Drawn. WAB 28 JANUARY 2021
E				Checked.
F				Approved.

S:\2017\17207\1. PLANNING\1. SCHEME PLANS\17207-00-PL-100 LOVELL STH FUTURE URBAN #D 28-01-21.DWG

GENERAL RESIDENTIAL EXTENTS COMPARISON
PROPOSED STRUCTURE PLAN
LOVELL SOUTH BLOCKS - TAUPIRI



Blue Wallace
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Drawing Reference:
17207-00-PL-100

Revision:
D

SCALE: 1:5000 @A3, 1:2500 @A1

DATE: JANUARY 2021

PREPARED FOR: H. LOVELL

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Attachment B: Water and WW s32AA Assessment

S32AA – Further Evaluation Report

Water Supply & Wastewater



PROJECT ADDRESS
Lovell South Blocks
Taupiri

Date: 4th February 2021
Document Ref: 17200-ENG-MEM1
Prepared By: Josy Cooper

1.0 Purpose of Memo

Blue Wallace has been engaged to provide input for the purposes of an S32AA – Future Evaluation Report with respect to water supply and wastewater servicing of a proposed future development area in Taupiri. The purpose of this memo is to undertake a high-level investigation to determine the current and proposed servicing of Taupiri with respect to water supply and wastewater. Further detailed assessment will be required should the proposal proceed.

The client is seeking to rezone an area of land from rural to residential under the Proposed Waikato District Plan review process. The area of land in question is an extension of the currently proposed residential living zone further south as shown in Figure 1. Based on draft plans produced by Blue Wallace, this area could potentially support an additional 163 new Lots.

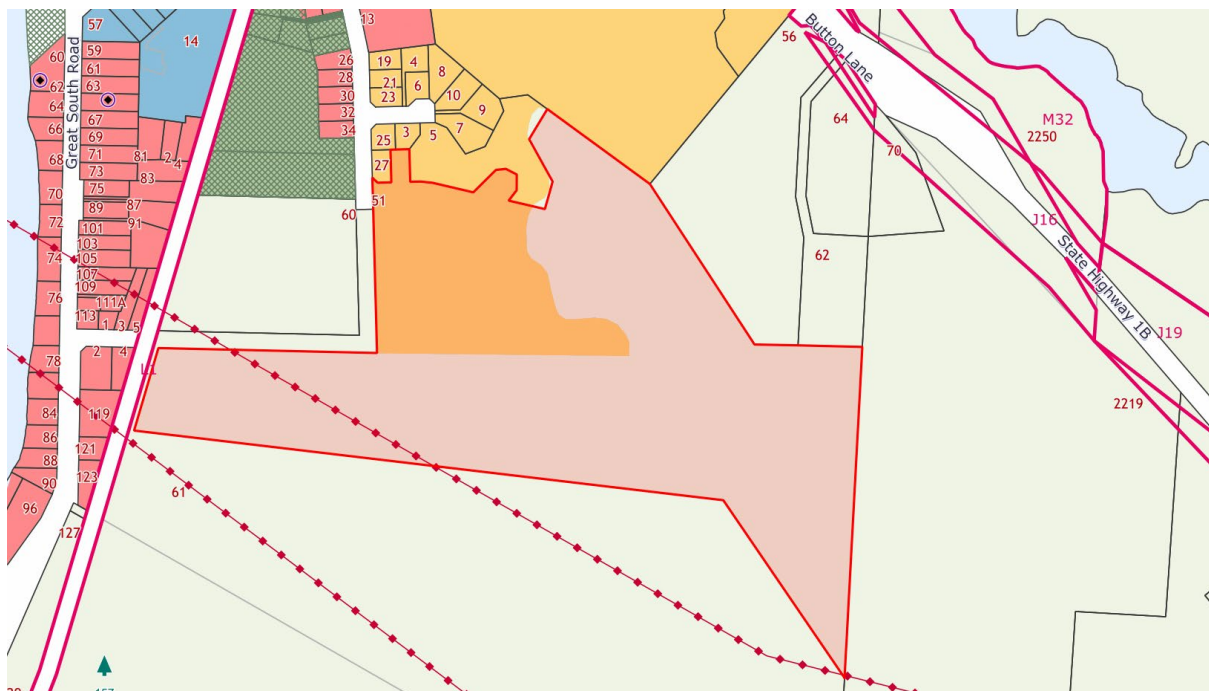


Figure 1: Extension of Proposed Residential Living Zone Boundary

2.0 Water Supply

2.1 Background

Taupiri is part of the Central Waikato Water Scheme which was developed as part of the Waikato District 50 Year Water Supply Strategy (MWH, 2015). The strategy organised the water supply schemes across the district into 6 water supply areas and recommended that Taupiri have a connection to the Central Waikato area which will service Huntly, Ngaruawahia, Hopuhopu and Taupiri. The scheme proposed meant that water would be supplied to these areas from both Ngaruawahia and Huntly WTPs which draw water from the Waikato River. The Central Waikato scheme is designed to allow for growth in the areas which it serves. WMH (2015) in the 50-year water supply strategy described forecasted peak day abstraction baseline demand as 13,593m³/day out to 2065 (MWH, 2015).

Waikato District Council have implemented the recommendations from MWH's (2015) 50 Year Water Supply Strategy in the Central Waikato area. Previously Taupiri had been supplied water from the Hopuhopu WTP (Water Treatment Plant). In 2016 a new 250mm PE watermain was installed connecting the Ngaruawahia WTP to the Hopuhopu and Taupiri Water Supply Zones (Waikato District Council, 2018). Following this the Hopuhopu WTP was decommissioned. All the water supply to Taupiri is now from the Ngaruawahia WTP by way of the new Hopuhopu Reservoir (installed in 2018) via an existing 150mm watermain along Great South Road.

In 2017 a 355mm PE watermain was installed to connect the Huntly WTP to the 250mm PE line in Hopuhopu. This main allows water from the Huntly Water Treatment Plant to be pumped back to Hopuhopu/Taupiri and Ngaruawahia if the Ngaruawahia WTP cannot keep up with demand.

Recently (2019) a further new watermain was installed across the Waikato River – this pipeline is a 160mm OD PE PN16 pipeline and is Tee-ed off the main 355mm from Huntly WTP and provides further redundancy of water supply to Taupiri.

2.2 Flows

The proposed area would support up to an estimated additional 163 new Lots. The water demand for these lots has been estimated at a high level for the purposes of quantifying the impact of this additional area of development. The following has been assumed, based on RITS Section 6.2.3:

- Domestic demand of 260 L/person/day, with a peak flow rate of five times this to account for 'on demand supply'.
- Assuming 3 persons per Lot, giving an estimated population of 489 people.
- Estimated demand of 127,140 L/day, 635,700 L/day peak flow rate or 7.4 L/s.

2.3 Pressures

The Hopuhopu reservoir provides pressure to Taupiri under normal operation of the Central Waikato scheme. In the event that supply cannot be provided from Hopuhopu Reservoir, the connection across the river from the 355mm pumped main from the Huntly WTP main can further boost pressure and provide security of supply. There is a PRV located on the Taupiri side of this connection to allow control of supplied pressures.

Assuming that generally the pressure will be supplied via the Hopuhopu Reservoir, this is located at an RL of approximately 39 – 40m elevation.

The topography in the proposed development area is indicated in Figure 2. This figure shows that the proposed area to be included in the residential zone boundary extension is bisected by the gully system. The area to the north of the gully is generally sitting at maximum elevation of 15.0 – 16.0m. The area to the south of the gully is sitting at maximum elevation of 17.0m. The small corner of land at the south-eastern corner is elevated up to RL 25.0m.

This gives an available static head of approximately 23m for most of this area, and in the order of 15m in the small south-eastern corner, from the Hopuhopu reservoir to the proposed development land (not inclusive of pipeline and minor losses).

The level of service for pressure supply to properties required by the RITS clause 6.1.3.1 for on demand water supply areas is:

- Residential pressure and flow at point of supply to residential lots to be a minimum of 200 kPa (20m) and 25 L/min.
- Minimum fire supply service level of FW2 for residential areas.

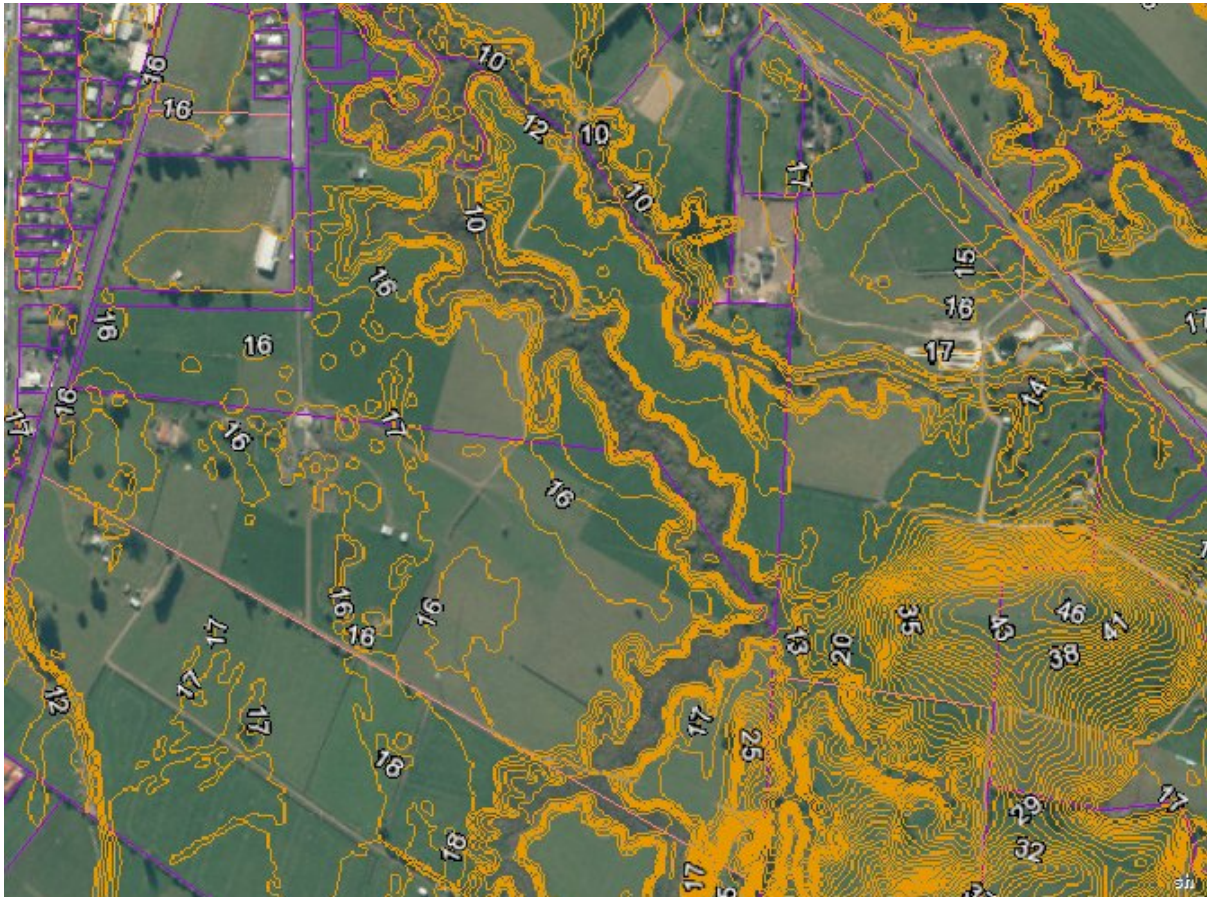


Figure 2: Existing Topography of Proposed Residential Living Zone Boundary Extension

It may be that development in the south-eastern corner of this area will need some form of boosting of the water supply due to the topography and distance from the main. However, discussion with Watercare will confirm the operation of the boosted supply from the 160mm PE line from the Huntly WTP. This will likely provide sufficient water pressure in any case and reference can be made to the Central Waikato scheme water supply hydraulic model to determine operating parameters for the scheme to ensure sufficient pressure and flow supply can be supplied to the proposed developed areas.

3.0 Wastewater

3.1 Background

Wastewater in Taupiri is currently collected by five existing pump stations which discharge to the south via a 160mm PE rising main. This main discharges to the Ngaruawahia WWTP (Wastewater Treatment Plant) located at Old Taupiri Road. The consent for this treatment plant expires in 2029, it has an allowable discharge of 11,200 m³/day (Waikato District Council, 2014).

Previously Mott MacDonald were commissioned to carry out hydraulic modelling for the Central Districts wastewater system with respect to future development in Taupiri (Mott MacDonald, 2017). Mott MacDonald (2017) updated the existing Central Districts wastewater model to reflect further proposed development in the area. This update allowed for an additional 135 residential lots with a 2.7-person occupancy and included the catchments shown in Figure 3.

Mott MacDonald (2017) determined, based on their high-level performance assessment, very similar hydraulic results between pre- and post-development for both dry and wet weather events. The report concludes that the proposed additional 135 lots in Taupiri would not be likely to have a detrimental effect on the existing wastewater network. The report recommended that survey of the existing infrastructure was carried out to confirm the assumptions of this assessment.

Figure 4 shows the existing wastewater network in Taupiri. From a comparison of the extents of the additional modelling completed by Mott MacDonald it is evident that this assessment did not consider the addition of the flows from the proposed extension of the residential living zone boundary.

3.2 Flows

High level calculations have been carried out to estimate the additional wastewater flow rates from the proposed development in accordance with RITS Section 5.2.4, assuming the following:

- Population estimate – 489 people;
- Area – 14.9579ha;
- Discharge – 200 L/p/day;
- Infiltration allowance – 2,250 L/ha/day;
- Surface water ingress – 16,500 L/ha/day;
- Peaking factor – 3.3 (Table 5-2, RITS);

The calculated flows are as follows:

- ADF: 1.52 L/s
- PDF: 4.12 L/s
- PWWF: 6.98 L/s

3.3 Connection into Existing Network

A pumpstation (PS1) is proposed to be constructed to service the wider development area. Discussions with Watercare to date have indicated that connection from the pumpstation will need to be to the existing 225mm wastewater main located in Lovell Avenue. This connection point is shown by the yellow circle in Figure 4.

This 225mm main discharges to the existing WWPS located on Great South Road (WWPS111, Great South Road Pump Station). Recent discussions with Watercare have indicated that this is their preferred discharge location for the wastewater from the developed area.

A cursory check on the existing HDPE 225mm diameter pipeline laid at 1.12% gradient (as per GIS), would have maximum capacity of 55.13 L/s – the PWWF from the additional 163 Lots would equate to approximately 13% of the capacity of this pipeline.



Figure 3: Mott MacDonald Additional Modelled Catchments (Mott MacDonald, 2017)

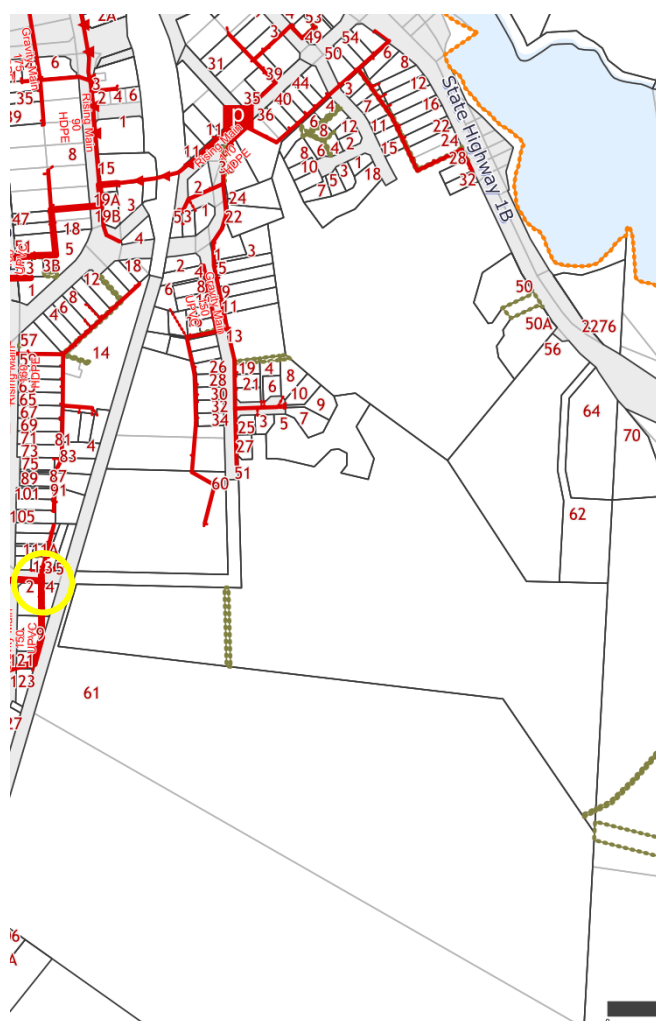


Figure 4: Existing Wastewater Network with Proposed Connection Point (Waikato District Council GIS, 2021)

5.0 Conclusion and Recommendations

A high-level review of the existing water supply and wastewater disposal options for the proposed extension of the residential living zone boundary has been carried out. This review indicates that due to recent work by the Waikato District Council to develop the Central Waikato Water Scheme, there appears to be sufficient water supply available to support the extension of the residential living zone. In the future this should be further investigated by extending the network in the water model to include the proposed development area and checking supplied flows and pressures available. Depending on the way Watercare plan to operate the scheme in the future, some pressure boosting may be required for some of the development area.

A new pump station (PS1) is proposed to service the existing and proposed residential country living zone at this location. Discharge from this pump station will be to the existing 225mm diameter wastewater main located in Lovell Avenue. Initial discussions with Watercare have indicated that this is a suitable discharge location. PS1 will need to be designed in accordance with the RITS, and a discharge connection design further detailed in consultation with Watercare. Further to previous work by Mott MacDonald, increases in the flows into the existing pipework is unlikely to result in surcharge or undersized pipes. This assumption should be checked at detailed design stage.

Josy Cooper



6.0 References

Mott MacDonald (2017). *Taupiri Wastewater Assessment – Blue Wallace Surveyors Limited*, Supplied by Mott MacDonald

MWH (2015). *Waikato District 50 Year Water Supply Strategy*, Supplied by Waikato District Council

Waikato District Council (2014). *Ngaruawahia Wastewater Treatment System Annual Report*, File No. USV0305, Consent 119642

Attachment C: Stormwater s32AA Assessment

Howard Lovell
Rostrevor Professional Group,
83b Tristram Street,
Hamilton Central, Hamilton 3204NZ

Dear Howard,

PURPOSE:

Te Miro Water Consultants Limited (TMW) has been engaged to provide specialist stormwater input for the purposes of a S32AA – Further Evaluation Report. The purpose of this letter is to undertake a high-level conceptual assessment of effects of the proposed development and present potential mitigation options. Further detailed stormwater assessment will be required should the proposal proceed.

BACKGROUND:

As a principal stormwater engineer at TMW, I have been involved in the existing Kildare Development Stages 1A-D and 2A since 2017. I understand that Howard Lovell and Rudi Van Dann (in partnership) are seeking to rezone an area of land from Rural, to Residential under the Proposed Waikato District Plan (PWDP) review process. The area of land is referred to as the Taupiri Village Expansion Area (TVEA) and is shown on the Concept Development Plan – Dwg 17207-00-PL-102 Revision C (Sept 2020, Blue Wallace Surveyors(BW)) (see orange area in Figure 1).

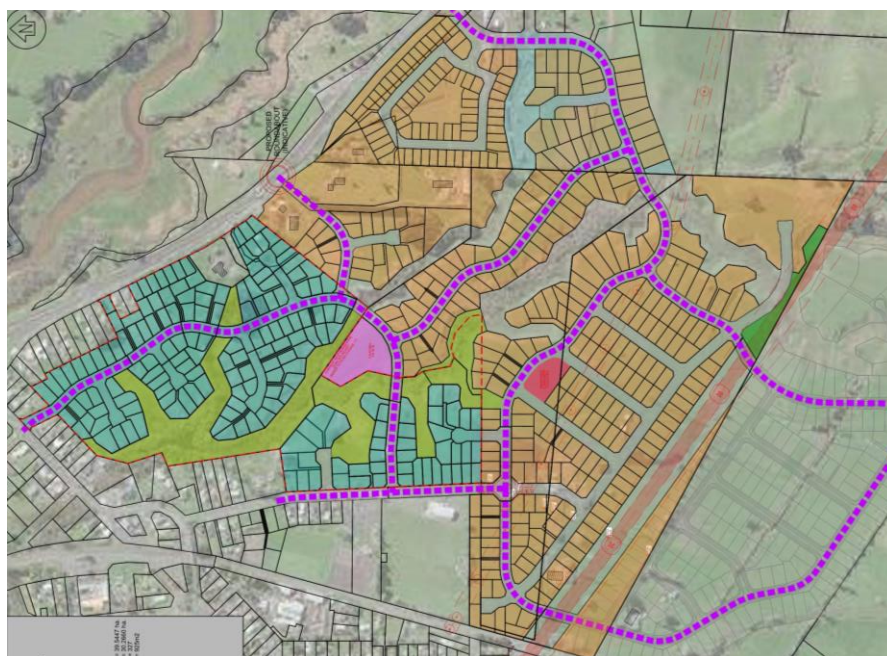


Figure 1 Proposed Zone Change (Sept 2020, BW)

ASSESSMENT AND MITIGATION OF EFFECTS:

The following section assesses and presents mitigation options to manage the potential impacts of flooding, water quality, hydrological flow regime and watercourse erosion resulting from the proposed land use zone change. For stormwater, this includes a change in the impervious coverage from approximately 3% FI to 60% FI as well as partial infilling the floodplain. A review of the plans indicate that it is unlikely that catchment areas and discharge locations will change.

EXISTING SITE AND PREVIOUS ASSESSMENTS:

The existing site is predominantly grazed farmland and is located within the middle third of a large rural catchment with an existing urban area at the base of the catchment (see Figure 2). The catchment topography is defined by a high flat plateau that drops towards a well-defined broad gully (up to 5 metres in depth). Previous ecological assessments have indicated that the gully has some ecological value and there is a presence of Mudfish (EPOC, 2018 and 2020). There are no known assessments relating to the existing watercourse bank or bed stability

The 100-year ARI flood event has been previously assessed for both the existing case and current land zone fully developed by Opus Consultants Ltd (Opus) (*15 Murphy Lane, Taupiri – Stormwater Impact Assessment Report* (Opus, 2018)). The report acknowledges that existing flooding within the TVEA and downstream catchment areas are controlled by the Waikato River tail water (13 metres in 100-year ARI event (including 2.1 deg climate change)). The assessment recognises that the 1200 mm dia culvert under Te Putu street (see Figure 2) does not have sufficient capacity to drain the upstream catchment, causing the overtopping of Te Putu Street during the 100 year ARI event (including 2.1 deg climate change). The Opus assessment highlights that there is no flood risk to private property under the existing or developed current living zone scenarios.

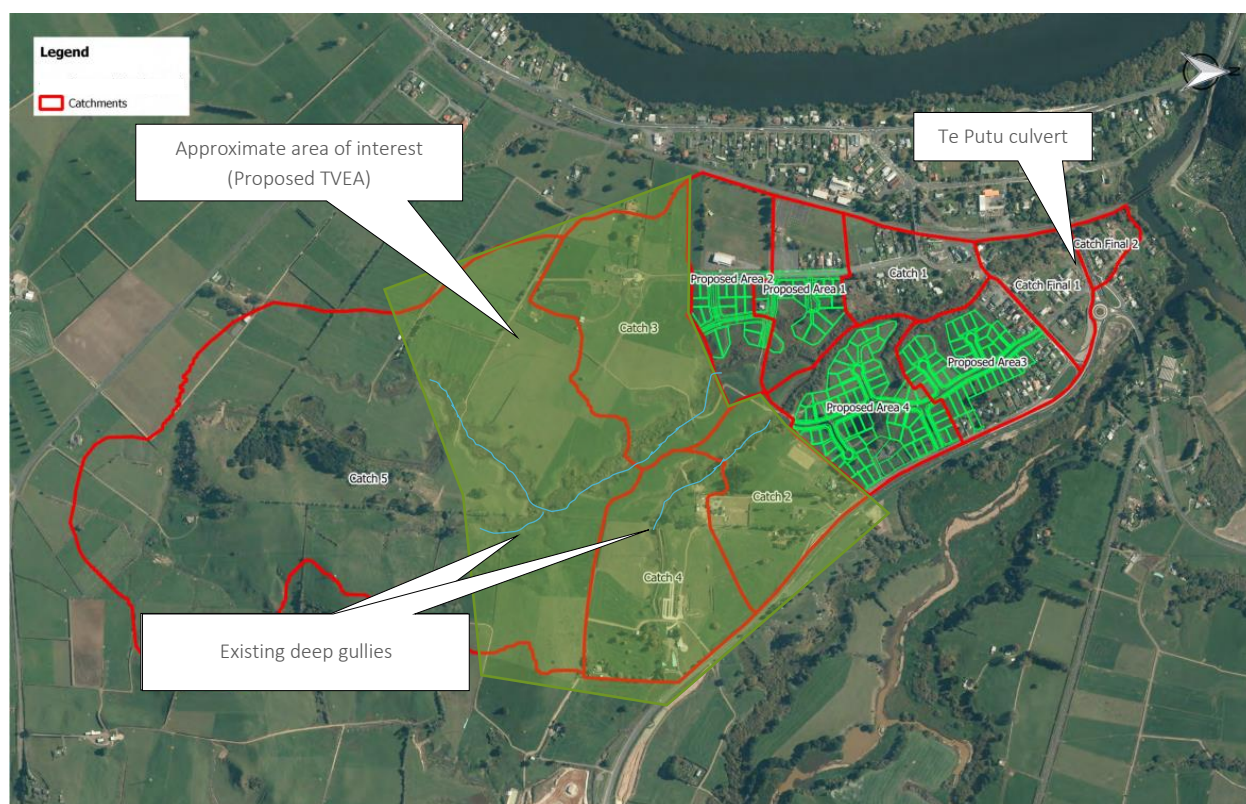


Figure 2. Catchment, outlet and area of interest (Base map - OPUS 2018)

FLOODING:

IDENTIFIED IMPACTS:

An assessment of flood impacts has been undertaken using the existing *15 Murphy Lane, Taupiri – Stormwater Impact Assessment Report* (OPUS, 2018) and a review of the catchment. Increased flood risk due to increased runoff (Arnold and Gibbons 1996) and filling in the floodplain from TVEA are likely to occur.

Flood impacts from an unmitigated development will be in the form of:

1. Increased water levels within the gully. This increased water level may begin to impact private property downstream of the site.
2. Increased flood extents in areas at the base of the catchment (the deep gully upstream is likely to result in minimal increase to flood extents).
3. Increased risk to Te Putu Street and Gordonton/Great South Road crossings. The Te Putu Street is currently at risk of flooding.
4. It is noted that the proposed zone change will likely be built across several overland flow paths potentially increasing upstream flood risk to roads and property.

MITIGATION OF FLOOD IMPACTS:

The proposed zone change can be considered viable provided the following proposed mitigation options are adopted:

1. The site is located within the upper half of the catchment. As such mitigation of downstream flood impacts can be achieved by either:
 - a. Option 1:
 - i. Attenuation of the 100-year ARI design storm (with the inclusion of climate change) to 80% of predevelopment flows.
 - ii. Undertaking a flood impact assessment (hydraulic model) to address the impacts of additional filling in the floodplain.
 - b. Option 2:
 - i. Undertake a flood impact assessment (hydraulic model) to determine a suitable combination of storage, cut and fill volumes (floodplain reconfiguration works) and increasing culvert capacity to show less than minor effects to the downstream catchment. It is recommended that WDC review DC's at this time to increase the Level of Service (LOS) for the Te Putu Culvert and to facilitate development.

Mitigation of upstream impacts can be achieved by safe conveyance of the upstream overland flow paths via a combination of open channels and pipe network which will be sized for the 100-year ARI design storm.

The proposed mitigation measures will be in accordance with the regional guidance.

WATER QUALITY:

IDENTIFIED IMPACTS:

An assessment of water quality impacts has been undertaken. Point-source and non-point-source pollutants from the proposed new impervious surfaces (residential land use) will occur in the form of:

1. Increased mobilisation of contaminants through increased surface runoff and hydraulic efficiency (Jackson and Pringle 2010).
2. Increased contribution of contaminants, including increased nutrient loadings (Carey et al. 2013), volatile organic compounds (Mahbub et al. 2011), heavy metals (Pastor and Hernández 2012) and thermal pollution (Wang et al. 2008).

MITIGATION OF WATER QUALITY IMPACTS:

The proposed zone change is viable provided source control and water sensitive design measures are implemented. Whilst the current proposed layout presents an urban development that retains gullies and waterways. Further best practice measures can be adopted as per regional guidance. This will likely involve:

1. Onlot soakage or water reuse.
2. Water quality treatment devices such as filter strips, permeable pavement, swales, raingardens and wetlands and communal soakage.

3. Distinct preservations and rehabilitation of waterways.

VOLUME CONTROL:

IDENTIFIED IMPACTS:

An assessment of volume control (sediment and erosion) impacts has been undertaken. It is likely that the interconnected pervious and impervious surfaces will contribute to multifaceted alterations to sediment budget and channel morphology. These impacts are outlined as follows:

1. Supply of coarse sediment to the receiving environment is gradually reduced with urban expansion. As a result, sediment reaching urban channels tends towards finer composition, inclusive of suspended sediment washed in from adjacent urban surfaces (Duncan 1999).
2. In conjunction with the loss of coarse sediments, impervious surfaces and the stripping of bank vegetation result in increased stream power and flashier stormwater runoff response, leading to an increase in erosive flows (Konrad 2013).
3. Urbanisation often results in enlargement of urban channel cross-sectional area (Hession et al. 2003, O'Driscoll et al. 2009), incision of the stream channel and separation from the riparian zone (Groffman et al. 2003, Richardson et al. 2011) and lateral channel migration (Hession et al. 2003, Leopold et al. 2005, Wolfert and Maas 2007).

MITIGATION OF VOLUME IMPACTS:

The proposed zone change is viable through the implementation of erosion prevention, source control, attenuation and water sensitive design. This will likely involve:

1. Stream walkover to assess the impacts of existing erosion to determine works required through development.
2. Implementation of onlot soakage or water reuse.
3. Implementation of extended detention through water quality devices.
4. Implementation of minor storm attenuation and scour protection at outlets where required.
5. Distinct preservations and rehabilitation of waterways.

HYDROLOGICAL LOSSES:

IDENTIFIED IMPACTS:

The presence of widespread impervious surfaces associated with TVEA is likely to alter the dynamics of infiltration and result in contrasting impacts on baseflow behaviour at a range of scales (Walsh et al. 2005). This will alter the hydrological regime within the waterway, affecting the receiving environment flora and fauna.

MITIGATION OF HYDROLOGICAL IMPACTS:

The proposed zone change is viable through the implementation of water sensitive design techniques, such as infiltration trenches, biofiltration swales, permeable paving and widespread plantation of trees and vegetation. These can facilitate infiltration and recharge by more closely mimicking the natural hydrology cycle and thereby assist in mitigating the effects of the plan change.

CONCLUSION AND RECOMMENDATION:

The proposed zone change, when assessed in conjunction with the current living zone is likely to present increased adverse effects on flood risk, water quality, volume control and alteration of the hydrological regime. These effects can be mitigated by a range of water sensitive techniques that will be prescribed in a catchment management plan (CMP). The CMP will be in accordance with relevant district and regional guidance. The proposed zone change is

therefore considered to be viable from a stormwater mitigation perspective that adopts an integrated catchment wide approach.

Warm regards,



Britta Jensen

PRINCIPAL ENGINEER – TE MIRO WATER CONSULTANTS LTD

(Reviewed – Mike Chapman 27th October 2020)

Attachment D: PDP Recommended Objective & Policy Assessment

Objective and Policy	Comment
<i>Growth occurs in defined growth areas (1.5.2(a))</i>	<p>The TVEA is identified as being within indicative urban growth Boundaries of the Taupiri Village (Future proof 2017 and Waikato 2070).</p> <p>Consistent with 1.5.2(a)</p>
<i>Urban development takes place within areas identified for the purpose in a manner which utilises land and infrastructure most efficiently. 1.12.8(b)(i)</i>	<p>The TVEA rezoning has considered the efficiency of existing and strategically planned infrastructure provision (i.e., connection to the Central Waikato Water Scheme).</p> <p>Technical comments in regard to three waters infrastructure have been attached to the s32Aa further evaluation reporting.</p> <p>Consistent with 1.12.8(b)(i)</p>
<i>Promote safe, compact sustainable, good quality urban environments that respond positively to their local context. 1.12.8(b)(ii)</i>	<p>A conceptual design consideration has underlain the TVEA as shown in Attachment A.</p> <p>Such consideration provides surety that the TVEA can achieve PDP direction in regard to a quality urban environment and will be integrated with established residential land use (already consented) to the north of the area.</p> <p>Consistent with 1.12.8(b)(ii)</p>
<i>Focus urban growth in existing urban communities that have capacity for expansion. 1.12.8(b)(iii)</i>	<p>Continuity of landform, elevation, geology and ecological between the TVEA and residential land use to the north indicate that the expansion capacity is present in the sought rezoning area.</p> <p>Focused urban growth to the south of Taupiri Village is not considered to be unreasonably constrained based on current investigations – consequently the proposed TVEA will not be contrary to the strategic objective of 1.12.8(b)(iii).</p>
<i>Protect and enhance green open space, outstanding landscapes, and areas of cultural, ecological, historic, and environmental significance. 1.12.8(b)(vi)</i>	<p>Ecological and culturally significant areas have been identified within the TVEA, as well as in land to the north that is already zoned or proposed to be zoned residential.</p> <p>Protection of such areas have been shown to be achievable by virtue of the recent subdivision and land use consents being issued in the New residential Zone. Such consenting criteria will persist for development within the TVEA such that adequate protection will be achieved – hence not being contrary to strategic Objection 1.12.8(b)(vi).</p>
<i>7. Future settlement consolidated in and around existing towns and villages in the district and in 'defined growth areas' (1.5.1(b); 1.12.3(a); 1.12.3(c); 4.1.2(a); 5.3.8)</i>	<p>The TVEA aligns with the Taupiri Village urban limits as envisioned within the 2017 Future Proof growth management document.</p> <p>TVEA will enable not only residential land use to consolidated within the Taupiri Village, but also will enable commercial zone connectivity to occur to the north.</p> <p>Future infrastructure services (connecting to Councils already constructed services) can be provided from within the TVEA future settlement extension.</p> <p>Staging of development can be extended from Stage 1, 2a, 2b and 3 from the Taupiri Structure Plan – and consequently can be effectively managed as such via Council's planning processes and performance criteria of the PDP.</p> <p>Connection to Council's planned infrastructure upgrades and development with the Taupiri area can be achieved. Detailed stages of development within the TVEA can and will be subject to refined infrastructure capacity – however, from a more strategic perspective, no capacity risks have been identified.</p> <p>Stormwater management can be provided for centrally within the TVEA's central gully area in conjunction with site specific stormwater management systems (soak holes, garden etc.) – this if further defined in the attached specialist s32AA Stormwater input.</p> <p>The TVEA has been strategically assessed so as to enable continuity of supply in regard to consolidated residential land use within the strategically defined Taupiri Village urban growth area.</p>

	<p>Reverse sensitivity effects on the rural land resource have not been identified given the landowners ownership of rural land abutting the south of the TVEA.</p> <p>The TVEA is not contrary to the strategic objectives of 1.5.1(b); 1.12.3(a); 1.12.3(c); 4.1.2(a); and 5.3.8.</p>
8. Urban growth areas are consistent with Future Proof Strategy for Growth 2017 (4.1.3(b))	<p>See evaluation discussion in attached s32AA Report.</p> <p>TVEA will not be contrary to Policy 4.1.3(b)</p>
13. Infrastructure can be efficiently and economically provided (4.1.3(a))	<p>Once the land within the TVEA is subdivided, it will be able to connect to all applicable infrastructure for residential land use requirements.</p> <p>TVEA will not be contrary to Policy 4.1.3(a)</p>
<i>Encourage higher density housing and retirement villages to be located near to and support commercial centres, community facilities, public transport and open space (4.1.5(a))</i>	<p>The principle behind the TVEA is that of extending residential land use within the Taupiri village. Consequently, the residential development that will take place in the area will be able to adhere with the intent of Policy 4.1.5(a) – and hence will not be in consistent with the policy direction.</p>
<i>Subdivision, use and development within the rural Environment where: (i) High class soils are protected for productive rural purposes; (ii) productive rural activities are supported, while maintaining or enhancing the rural environment; (iii) urban subdivision use, productive rural activities are supported and development in the rural environment is avoided (5.1.1(A)(i)(ii)(iii); 5.3.8)</i>	<p>The submitter notes that in the Framework Report (when explicitly addressing Policy 5.1.1(iii)) that once adjusted, the strategic imperative will then apply going forward, so not disregarding the policy altogether at this stage.</p> <p>The Framework report continues to state – “Once those revised zone boundaries are settled, any further and subsequent changes sought will then attract the full weight of the policy framework [of 5.1.1(A)], including any avoidance policies.”</p> <p>In consideration of the guidance provided in the Framework Report the TVEA will not be contrary or inconsistent with the overriding Rural land use change Objective.</p> <p>It is further noted that urban development in rural environments should only occur around existing towns which are identified in the WRPS and within the boundaries set by the <i>Future Proof Strategy Planning For Growth 2017</i>. As indicated above in the attached s32AA evaluation report – the TVEA is identified within the Future Proof strategy document 2017.</p>
16. Rural character and amenity are maintained 5.3.1 (a), 5.3.4 (a) (b)	<p>Rural amenity and character will be retained post transfer of land into a residential zone is undertaken.</p> <p>Land to the south of the TVEA is to retain a rural land use – and is under the ownership of the submission landowner.</p> <p>Standard rural residential interface standards will be retained and provided for in the PDP (i.e., building setback etc.). Further reverse sensitivity mitigation can be detailed at the resource consent stage of TVEA development.</p> <p>The TVEA rezoning will not be inconsistent with Objective and Policy set 5.3.1 (a), 5.3.4 (a)(b).</p>
<i>Effects on rural character and amenity from rural subdivision (a) Protect productive rural areas by directing urban forms of subdivision, use, and development to within the boundaries of towns and villages. (5.3.8(a))</i>	<p>Similar in response to the 5.1.1 Objective and Policy Set – the TVEA seeks to transfer 33.4ha of rural land into the abutting residential zone. The TVEA is in an identified growth area (strategic) and hence will not be contradictory to the 5.3.8(a) policy direction.</p>
<i>(b) Ensure development does not compromise the predominant open space, character and amenity of rural areas. (5.3.8(b))</i>	<p>The extension area will not result in fragmentation of the rural resource area – nor will rural productivity, character or amenity of adjacent land (to the south) be compromised as the residential area boundary will be well defined as proposed by the TVEA.</p> <p>The TVEA rezoning will not be inconsistent with Policy set 5.3.8(b).</p>

<i>Ensure subdivision, use and Development minimise the effects of ribbon development. (5.3.8(c))</i>	<p>No rural zone ribbon development will ensue by accepting the sought TVEA rezoning.</p> <p>Not contrary to Policy set 5.3.8(c).</p>
<i>Subdivision, use and development Opportunities ensure that rural character and amenity values are maintained. (5.3.8(e))</i>	<p>The defined boundaries of the extended residential zone clearly delineate the rural and residential land uses.</p> <p>The rural zone to the south of the TVEA will retain character and amenity values to the same degree whether or not the TVEA is given effect to (i.e., the PDP residential extent is bound to the south by the Rural zone). The TVEA boundary to the south is more responsive in regard to landform than the current PDP interface boundary – hence, the TVEA will not be contrary to Policy set 5.3.8(e).</p>
<i>Subdivision, use and development ensures the effects on public infrastructure are minimised. (5.3.8(f))</i>	<p>The TVEA will not prejudice or otherwise compromise the rural zone character or amenity – this also applies to public infrastructure within the rural zone.</p> <p>The section of national Grid traversing the southern extent of the TVEA crosses into the rural zone – no impacts on this infrastructure has been noted (in regard to National Grid setbacks or NZECP34 compliance).</p> <p>As no development is proposed to be located within the Rural Zone (post rezoning to residential), the TVEA will not be contrary to Policy 5.3.8(f).</p>
Meets district wide rules and any relevant overlays	<p>Policy overlays and planning notations have been considered in the attached s32AA evaluation assessment.</p> <p>As the TVEA is a higher-level planning process (i.e., a PDP variation) specific design detail for future subdivision is not available at this time for assessment purpose.</p> <p>Notwithstanding the above, the conceptual scheme plan underlying the TVEA has been prepared on a considered basis whereby an indicative allotment arrangement, and transportation network, has been provided.</p> <p>The considered conceptual design of the TVEA can provide an elevated level of confidence as to future development suitability from a residential zone perspective.</p> <p>Based on the attached concept scheme plan design – an average lot area of 917m² has been provided. This average is very conservative – thus providing security in regard to performance standard compliance at the future subdivision consent stage of the TVEA development.</p>

Attachment E: Demographic Profile and Growth Projection (NIDAR)

Demographic Profile & Projected Changes, 2018-2038

Taupiri & surrounding areas

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October 2020



National Institute of
Demographic and Economic Analysis

Te Rūnanga Tātari Tatauranga

THE UNIVERSITY OF WAIKATO



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WAIKATO
Te Whare Wānanga o Waikato

Demographic Profile & Projected Changes, 2018-2038

Taupiri & surrounding areas

October 2020

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Executive Summary

The Taupiri Community has a resident population of approximately 400 people. When the geographical classification changed in 2018, this Census Area Unit (CAU) became a part of the bigger Statistical Area (SA2) called Taupiri-Lake Kainui. The usually resident population of Taupiri-Lake Kainui according to the 2018 Census is around 2,220, which is a 14 per cent increase since 2013. The Waikato District saw a slightly higher increase of 19.3 per cent over the 2013-2018 period with the URP changing from 63,380 in 2013 to 75,620 in 2018. Since early 2020, the opening of the Waikato Expressway extensions have provided additional more efficient access to Auckland, in addition to existing connections to Hamilton. The Waikato Region overall experienced a smaller rate of population increase over this period (13.5 per cent).

In order to analyse the current and projected demographic profile, the CAUs or SA2s surrounding the Taupiri Community were grouped together to create Taupiri Region A (used to analyse the current population characteristics) and Taupiri Region B (used to analyse the projected trends). Taupiri Region A, which includes the Taupiri Community and all the SA2 (as defined by StatsNZ) surrounding it, makes up around 37 per cent of the Waikato District as per the 2018 Census count. It has a slightly younger age profile than the wider District as well as the Waikato Region. In terms of ethnicity, almost 40 per cent of Taupiri Region A population is Māori, a much higher proportion than both the District as well as the Waikato Region. More than half of the resident population of Taupiri Region A lives in areas which are categorised as high deprivation, which is higher than the district-level, regional or national average.

Based the 2013 Census based projections¹ (updated October 2017), the Waikato District is projected to experience the highest growth within the Waikato Region with the resident population likely to increase by 16.0 per cent over 2018-2028, and 29.3 per cent over the 2028-2038 period, compared to 10.1 per cent and 17.4 per cent respectively projected for Waikato Region as a whole. Combined, the Territorial Authority (TA) areas of Hamilton City and Waikato District account for more than 80 per cent of the growth estimated for the Waikato Region.

The growth in Taupiri Region B is likely to be marginally lower than that projected for the District (15.0 per cent over 2018-2028 and 24.9 per cent over 2018-2038) but still noticeably higher than the regional average. Reflecting patterns across the country, Taupiri Region B, Waikato District and the wider Region, are all projected to undergo numerical as well as structural ageing with the number and proportion of older people (65+ years) estimated to increase substantially over

¹ The 2018 Census based projections are not yet available

the next two decades. The highest projected growth is expected for the Pacific Islander and Asian population of the District (as well as the Region) followed by Māori.

According to the 2013 Census based household and family projections (updated December 2017), the Waikato District is expected to have the biggest percentage increase in number of households within the Waikato Region: 19.9 per cent over 2018-2028 and 36.2 per cent over 2018-2038. This is substantially higher than the regional average of 12.6 and 22.5 per cent increase, and a national average of 13.1 and 23.1 per cent increase projected respectively.

Similarly, across the region, Waikato District is projected to have the biggest increase in the number of families: 17.8 per cent over 2018-2028 and 31.5 per cent over 2018-2038 (compared to the regional average of 11.2 and 19.0 per cent increase and national average of 12.7 per cent and 21.9 per cent increase respectively)

Introduction

This report was commissioned by Blue Wallace Surveyors Ltd to provide insight into the current and projected population profile of Taupiri and surrounding areas. The overall and age specific changes projected for the resident population of the defined area is analysed and presented along with comparisons drawn with the changes estimated in the Waikato District as a whole.

The 2018 Census based population estimates and projections by Stats NZ were unavailable at the time of writing this report. The 2018 Census based usually resident population (URP) counts, along with 2013 census based estimated resident population (ERP) counts and 2013 Census based population projections have been used to analyse the current and projected demographic profile of the grouped geographical boundary encompassing the Taupiri community and the areas surrounding it. The Waikato District level population and household projections from the Future Proof commissioned research report have also been used where necessary (Cameron & Cochrane, 2016).

The geographical area for the population profile presented in this report has been defined by grouping the Statistical Area 2 units (SA2) boundaries as defined by Stats NZ. SA2s were introduced as part of the Statistical Standard for Geographic Areas 2018 (SSGA2018) which replaced the New Zealand Standard Areas Classification (NZSAC1992). The SA2 geography aims to reflect communities that interact together socially and economically. In populated areas, SA2s generally contain similar sized populations. Prior to 2018, Census Area Units (CAUs) were used by Stats NZ to disaggregate the Territorial Authority (TA) or Regional Council (RC) boundaries into smaller geographical areas.

The CAU of Taupiri Community (a statistical area defined by Stats NZ prior to 2018) has a resident population of approximately 400 people. When the geographical classification changed in 2018, this CAU became part of the bigger SA2 called Taupiri-Lake Kainui. The usually resident population of Taupiri-Lake Kainui according to the 2018 Census is around 2,220, which is a 14 per cent increase since 2013. The Waikato District saw a slightly higher increase of 19.3 per cent over the 2013-2018 period with the URP changing from 63,380 in 2013 to 75,620 in 2018. The Waikato Region overall experienced a smaller rate of population increase over this period (13.5 per cent).

Research undertaken to inform the Waikato Regional Housing Initiative working group suggests that there is a current shortfall in housing in the Waikato District overall, and that housing demand will exceed current rates of building consenting (Brame 2018). The opening of the most recent stages of the Waikato Expressway in early 2020 now mean that there is an efficient transport connection for residents in Taupiri and surrounding areas to major employment centers in Auckland in addition to existing connections to Hamilton.

Figure 1.1 shows the Taupiri Community CAU and the surrounding areas as defined by the new SA2 or the old CAU geographical classifications. For the purpose of this report, the current and projected demographic profile is presented for one of the following two geographically grouped areas depending on the availability of data:

- Taupiri-Lake Kainui and surrounding areas based on SA2 classification and referred to henceforth as **Taupiri Region A**; or
- Taupiri Community and surrounding areas based on CAU classification and referred to henceforth as **Taupiri Region B**.

Table 1.1 lists the SA2s and CAUs that have been grouped together to form these two sub-regions within the Waikato District.

Figure 0.1 Taupiri Community and the surrounding CAUs/SA2s grouped to form Taupiri Region A and Taupiri Region B

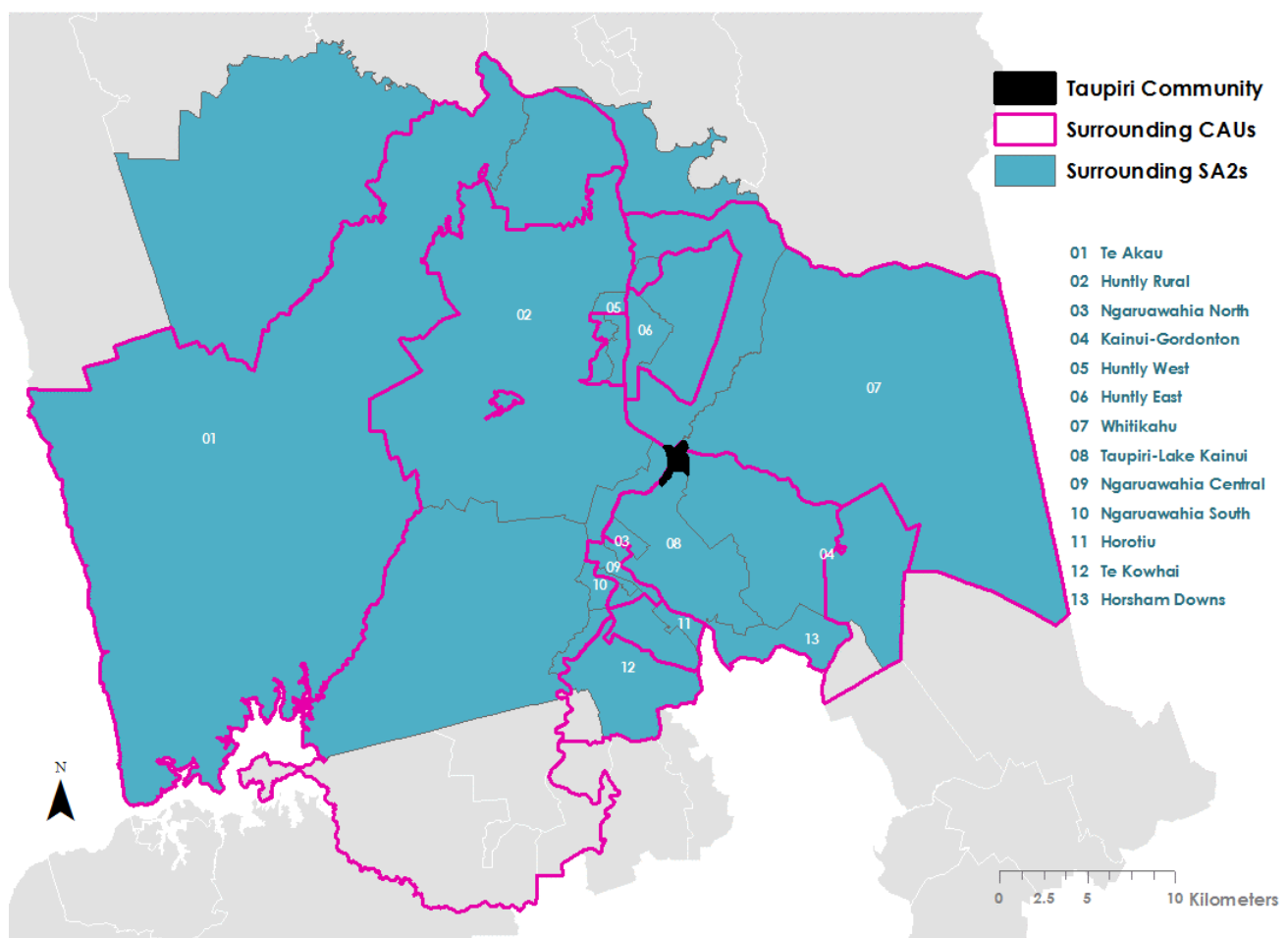


Table 0.1 Statistical Areas (SA2) Census Area Units (CAU) grouped to form Taupiri Region A and Taupiri Region B

Statistical Area Units (SA2) <i>(geographical boundary classification by StatsNZ Census 2018 onwards)</i>		Area Units (AU) <i>(geographical boundary classification by Stats NZ prior to 2018)</i>	
Taupiri Region A	Te Akau	Taupiri Region B	Te Akau
	Huntly East		Waikato Western Hills
	Huntly West		Whitikahu
	Huntly Rural		Huntly West
	Whitikahu		Huntly East
	Kainui-Gordonton		Taupiri Community
	Taupiri-Lake Kainui		Kainui
	Ngaruawahia North		Gordonton
	Ngaruawahia Central		Ngaruawahia
	Ngaruawahia South		Horsham Downs
	Horotiu		Horotiu
	Te Kowhai		Te Kowhai
	Horsham Downs		

It is important to note that population projections **are not forecasts, but are estimations of what the situation will be if the assumptions on which they are based, prevail**. Three alternative projection series (low, medium, and high) are produced by Statistics New Zealand for each area unit using different fertility, mortality, and migration assumptions:

- Low series: Assuming low fertility, high mortality and low net migration
- Medium series: Assuming medium fertility, medium mortality and medium net migration
- High series: Assuming high fertility, low mortality and high net migration

It is conventional to see the medium series projections as the 'most likely' scenario. The low and high series provide an indication of the likely lower and upper parameters of change, and allow users to assess the impact on population size and structure resulting from more conservative and optimistic demographic scenarios, respectively. Projections resulting from all three scenarios have been presented in this report.

Data Sources

The following datasets were sources from the NZ.Stat portal of Statistics NZ:

- Age and sex by ethnic group (grouped total responses), for census usually resident population counts, 2006, 2013, and 2018 Censuses (RC, TA, SA2, DHB)
- Estimated resident population (ERP), subnational population by ethnic group, age, and sex, at 30 June 1996, 2001, 2006, 2013, and 2018
- Subnational population projections, by age and sex, 2013(base)-2043 update
- Subnational ethnic population projections, by age and sex, 2013(base)-2038 update
- Area unit population projections, by age and sex, 2013(base)-2043 update
- Subnational household projections, by household type, 2013(base)-2038 update
- Subnational family projections, by family type, 2013(base)-2038 update

The population projections used in this report are the updated 2013-base subnational population projections which were released in December 2016 and have as a base the estimated resident population of each area at 30 June. These supersede the 2013-base subnational population projections which were released in February 2015.

Projections for families (by family type) and households (by household composition) are presented for the Waikato District. These projections cannot be disaggregated for the two sub-regions as the data are not available at the CAU/SA2 level.

The subnational family and household projections by broad family type and household type used in this report are those that were released by Stats NZ in December 2017 and are based on the 2013 Census. The more updated 2018 Census based projections have not yet been released.

Note: Within the tables included in this report, individual figures may not sum to stated totals due to rounding. The rounding of population figures is determined by the total population size of the geographic area.

It should be noted here that the ERP (at 30 June) in the census year is based on the census URP count, with updates for:

- net census undercount (as measured by a post-enumeration survey)
- residents temporarily overseas on census night
- births, deaths and net migration between census night and 30 June
- reconciliation with demographic estimates at the youngest ages.

The ERP is not directly comparable with the URP count because of these adjustments.

1 Current resident population profile

As per the 2018 Census, the usually resident population of the **Taupiri Region A**, comprising of 13 SA2s surrounding the Taupiri community, was approximately 29,000. This makes up 37 per cent of the usually resident population of the Waikato District.² The age, sex, ethnic and socio-economic deprivation profile of Taupiri Region A is based on the 2018 Census URP counts (the estimated resident population, ERP, counts are yet to be published by Stats NZ).

It is important to note that population estimates for small geographic areas (e.g. Census Area Units or SA2s) are more uncertain than estimates released at broader geographic levels because information on external and internal migration is often not readily available at the area unit level. Furthermore, localised developments can have a significant impact on the net migration patterns and population structure of area units, and this impact can be difficult to identify.

Table 1.1 gives the URP count as recorded in the 2018 Census for each of the 13 SA2s that have been grouped together to form the Taupiri Region A.

Table 1.1 Usually resident population (URP) of the Taupiri Region A and its constituent SA2s as per the 2018 Census

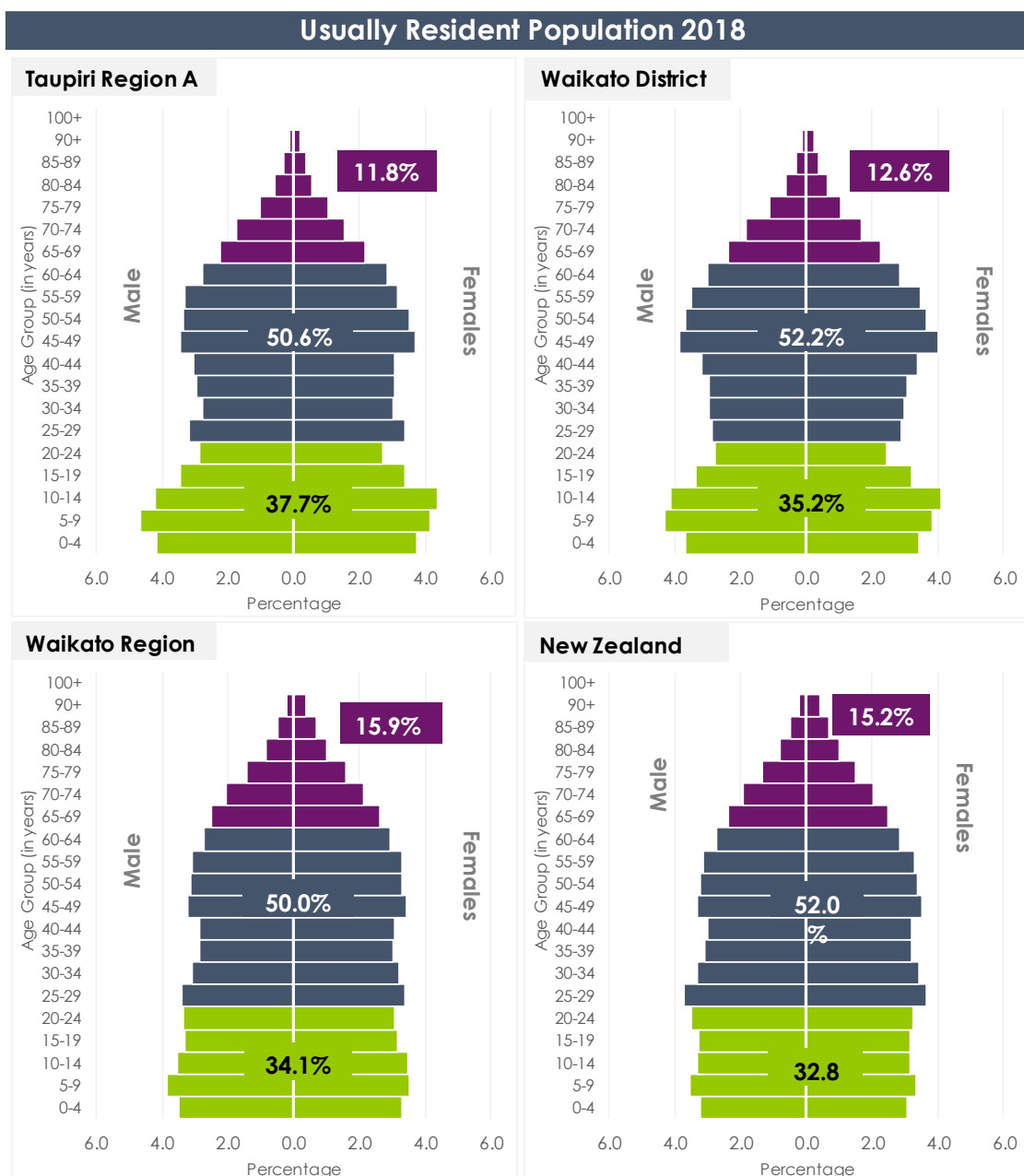
	URP 2018	% of Taupiri Region A
Te Akau	1,968	7.0
Huntly East	4,752	16.9
Huntly West	3,153	11.2
Huntly Rural	2,271	8.1
Whitikahu	1,968	7.0
Kainui-Gordonton	1,734	6.2
SA2 Taupiri-Lake Kainui	2,220	7.9
Ngaruawahia North	1,782	6.3
Ngaruawahia Central	2,886	10.3
Ngaruawahia South	1,953	7.0
Horotiu	624	2.2
Te Kowhai	2,061	7.3
Horsham Downs	714	2.5
Taupiri Region A	28,086	100.0
Waikato District	75,618	
Waikato Region	458,202	
New Zealand	4,699,755	

² The URP count is not as accurate an estimate of the resident population of an area as the ERP count as it does not include the net census undercount or the residents temporarily overseas on census night.

1.1 Age & sex

Figure 1.1 shows the age-sex structure of Taupiri Region A in 2018 compared to the wider Waikato District. Comparative data for the Waikato Region and New Zealand are also included. The Taupiri Region A has a younger age profile than the district as well as the region with higher proportion of children and young adults and lower proportion of residents aged 65 years or more.

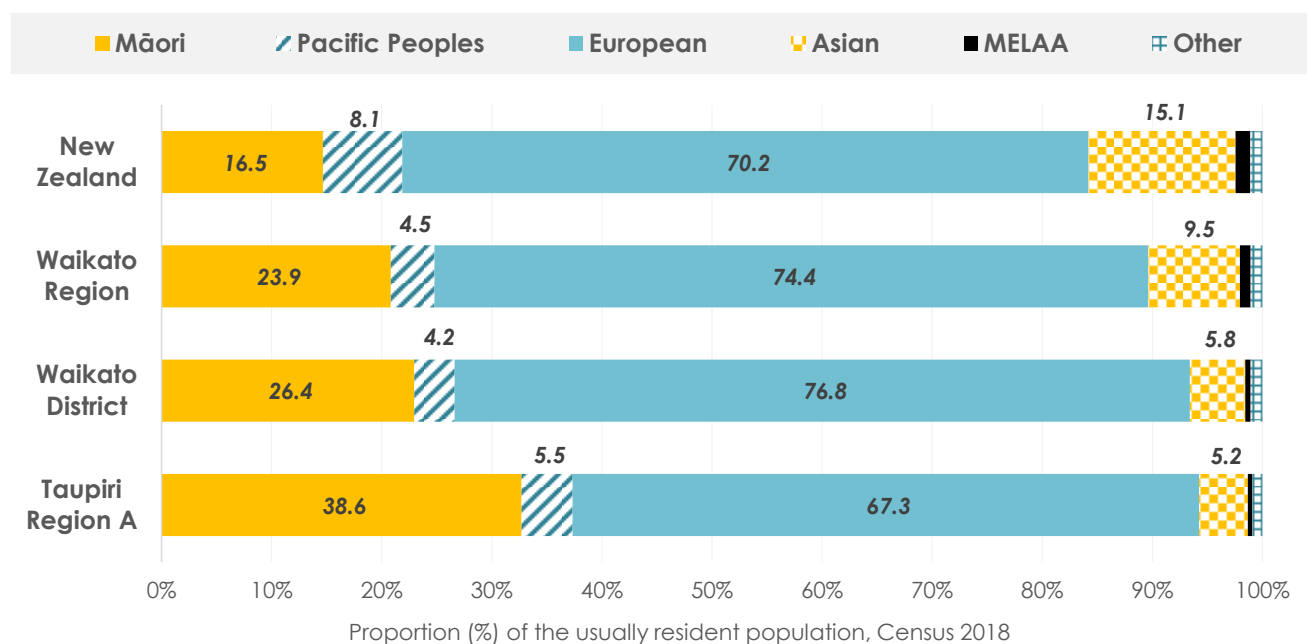
Figure 1.1 Age-sex profile of the usually resident population of Taupiri Region A as per the 2018 Census compared to that of Waikato District, Waikato Region and New Zealand



1.2 Ethnicity

Figure 1.2 shows the ethnic structure of Taupiri Region A in 2018 compared to Waikato District and Region as well as New Zealand. Almost two in five residents (38.6 per cent) of the Taupiri Region A are Māori, which is much higher than that in the Waikato District (26.4 per cent) or Waikato Region (23.9 per cent) as a whole. The Pasifika population is also marginally higher. On the other hand, Taupiri Region A as well as the wider district has a much smaller Asian population compared to the Waikato Region.

Figure 1.2 Ethnic profile of the usually resident population of Taupiri Region A as per the 2018 Census compared to that of Waikato District, Waikato Region and New Zealand



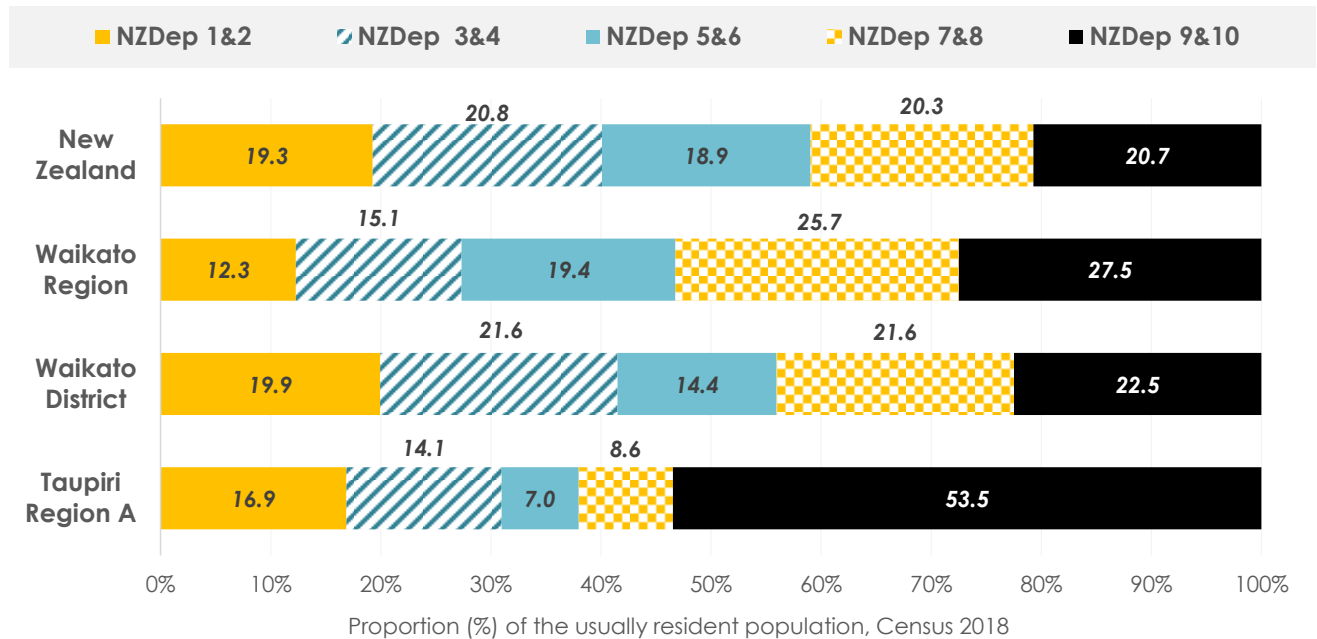
Note: Multiple ethnicity counting means that the people can be counted in more than one ethnic group.

1.3 Socio-economic deprivation (NZDep2018)

NZ Deprivation Index is a measure of the relative socio-economic deprivation of an area. The index combines nine variables from the 2018 Census which reflect eight dimensions of deprivation (income, communication, employment, qualifications, home ownership, support, living space and transport) and provides a score for each mesh-block and each SA2 and SA1 area. In its ordinal form the index ranges from 1 to 10, where 1 represents areas of lowest socio-economic deprivation and 10 the areas of highest. Thus, a score of 10 indicates that the area is in the most deprived 10 per cent areas in New Zealand. It should be noted that NZDep scores apply to areas and not individual people.

More than half (53.5 per cent) of the resident population of Taupiri Region A lives in areas which are categorised as high deprivation, which is higher than the district-level, regional or national average.

Figure 1.3 NZDep18 profile of the usually resident population of Taupiri Region A as per the 2018 Census compared to that of Waikato District, Waikato Region and New Zealand



2 Projected population

The analysis in this section uses the 2013 Census based population projections for the period 2018-2028 and 2028-2038. The more updated 2018 Census based population projections are yet to be released. The population projections from the *2016 Update of Population, Family and Household, and Labour Force Projections for the Waikato Region, 2013-2063* (commissioned research report for Future Proof) for the Waikato District or the Waikato Region have not been used as –

- a. The projections are not at the CAU level and therefore it is not possible analyse the population data for the Taupiri Region A or B; and
- b. The projected 2018 population counts (in the Future Proof report) for both Waikato District and the Waikato Region is much lower than the actual census population count (URP count at the 2018 Census). For e.g. as per the Future Proof report, the projected population of 2018 in Waikato District and Waikato Region is likely to be around 71,954 and 448,616 (medium series), whereas the actual 2018 Census URP count is 75,618 and 458,202 respectively. The URP count, as noted previously, is in fact an undercount of the estimated resident population of a district or region as it does not include net census undercount or the residents temporarily overseas on census night. This means that the Future Proof projections substantially under-estimate the population of the Waikato District and the Waikato Region over the 2018-2038 period.

As noted previously, population projections are not forecasts, but are estimations of what the situation will be if the assumptions on which they are based, prevail. Population projections are based on assumptions about future fertility, mortality and migration. Although the assumptions are carefully formulated to represent future trends, they are subject to uncertainty. Therefore, the projections should be used as guidelines and an indication of the overall trend.

It is recommended that this report be updated when the 2018 Census based population estimates and projections are released by Stats NZ in order to get a more accurate picture of the demographic changes expected across the Waikato District over the next two decades.

This section presents the changes projected for the Taupiri Region B³ over the period 2018-2038. Stats NZ population projections are released under all three scenarios (low, medium and high series). It is conventional to see the medium series projections as the 'most likely' scenario and these are considered the most suitable for assessing future population changes. The medium

³ Taupiri Region B is an aggregation of CAUs - the geographical classification system used by Stats NZ until the 2013 Census. The difference in the boundaries of Taupiri Region A (based on the new SA1 and SA2 classification by Stats NZ) used in the previous section and Taupiri Region B is detailed in Figure A and Table A in the Introduction section of the report.

projection series uses medium fertility, medium mortality and medium net migration for each area.

2.1 Overall change

Figure 2.1 looks at the projected percentage change in the resident population of Taupiri Region B over the next two decades. Comparison with the Waikato District as well as the Waikato Region is also given. Under the medium series projections, the estimated resident population of Taupiri Region B is expected to increase by around 15.0 per cent over the 2018-2028 period, similar to the increase expected in the wider District (see Figure 2.1). Over the longer 2018-2038 period, the growth in the Waikato District is likely to be a little higher than that in the sub-region (29.3 per cent as compared to 24.9 per cent).

The growth in the sub-region as well as the Waikato District is projected to be substantially higher than that expected for the Waikato Region.

Figure 2.1 Projected change in the resident population (medium series), 2018-2028 and 2018-2038

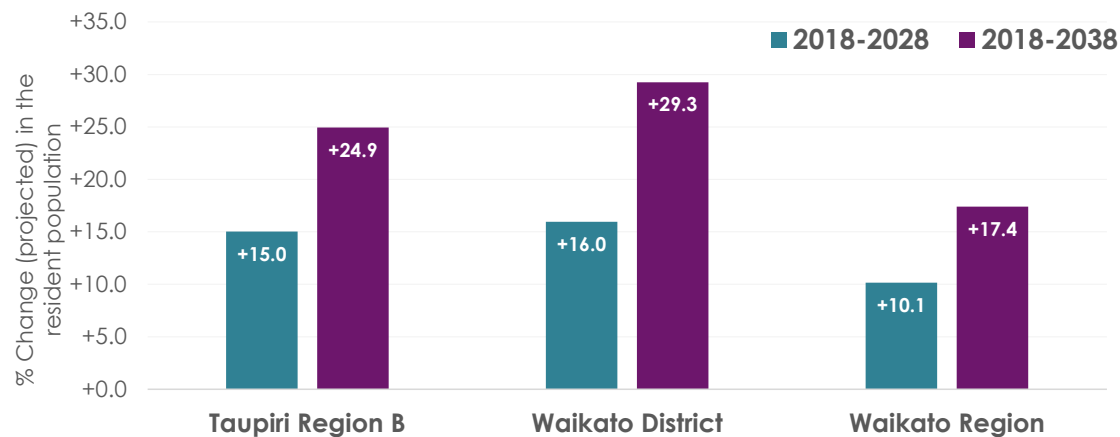
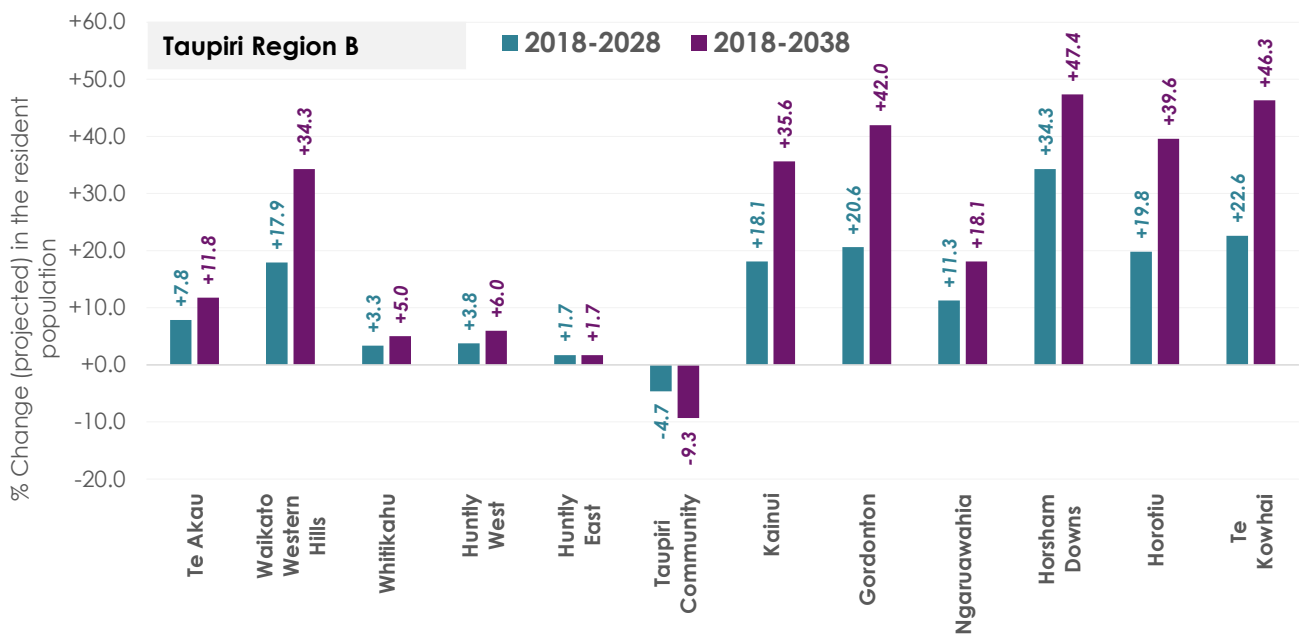


Figure 2.2 shows the projected percentage change in resident population under the medium series in each of the constituent CAUs of Taupiri Region B. The resident population of the Taupiri community is expected to decline over the 2018-2038 period but majority of the surrounding CAUs are likely to experience substantial growth. The areas with the most projected growth are Horsham Downs, Te Kowhai and Gordonton.

Figure 2.2 Projected change in the resident population of the CAUs that constitute the Taupiri Region B, 2018-2028 and 2018-2038

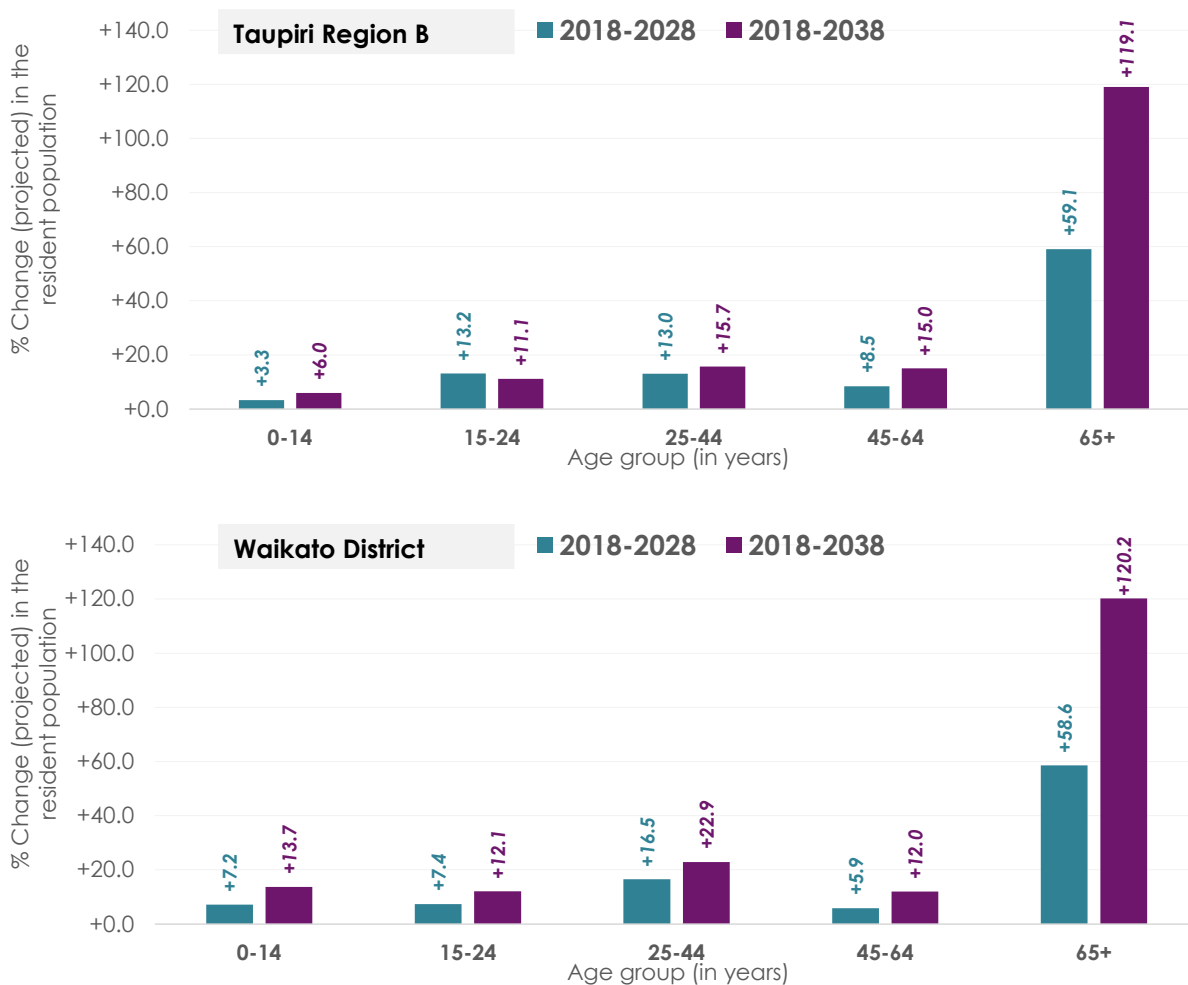


2.2 Change by age group

The overall projected change in the population of Taupiri Region B and the Waikato District is not only unevenly distributed geographically, it is also uneven across age groups. Figure 2.3 disaggregates the projected population change (medium series) in Taupiri Region B and Waikato District by broad age groups.

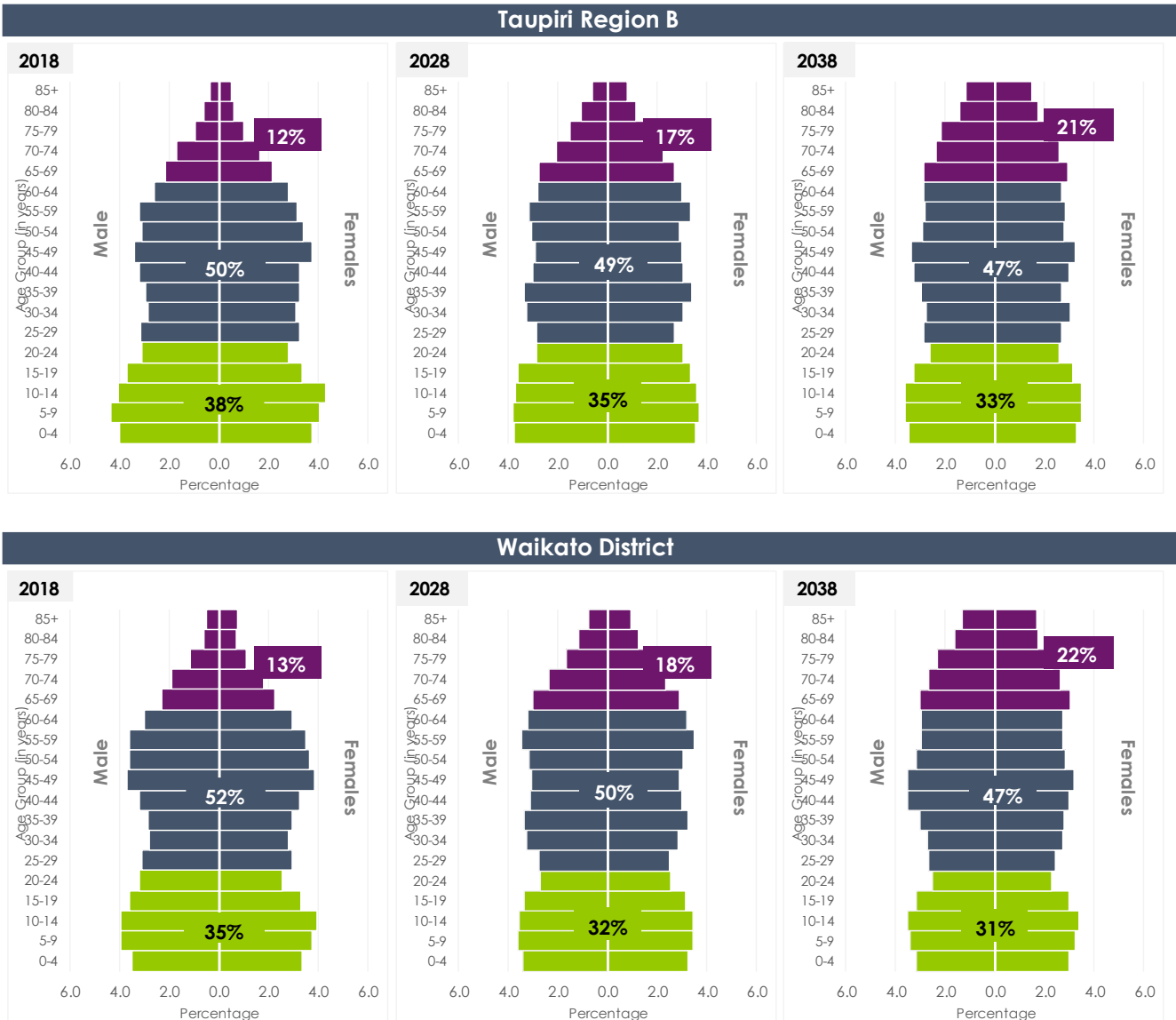
The population growth expected over the next two decades is mostly concentrated at the older ages (65+ years). The oldest 65+ year age group contributes 57 per cent to the total increase in the population of Taupiri Region B over the 2018-2038 period. These demographic changes are leading us to the phenomenon we call 'population ageing', which is occurring across the country; more rapidly in some regions than others.

Figure 2.3 Projected change in the resident population disaggregated by broad age groups, 2018-2028 and 2018-2038



There are two dimensions to population ageing: numerical and structural. Numerical ageing is the increase in the actual numbers of aged persons as seen in Figure 2.3. The primary cause of numerical ageing is declining mortality. That is, as the life expectancy increases, the number of older people increases. On the other hand, an increase in the proportion of older persons is termed as structural ageing. Its primary cause is fertility decline, which leads to a relatively smaller proportion of young people. The population of Taupiri Region B and Waikato District is also ageing like other parts of New Zealand as can be seen in Figure 2.4. The 65+ year population which made up only 12 per cent of the resident population of the Taupiri Region B in 2018 is expected to make up 21 per cent of the estimated residents by 2038.

Figure 2.4 Age-group specific change projected for the population of Taupiri Region B and Waikato District over the 2018-2038 period (medium series projections)



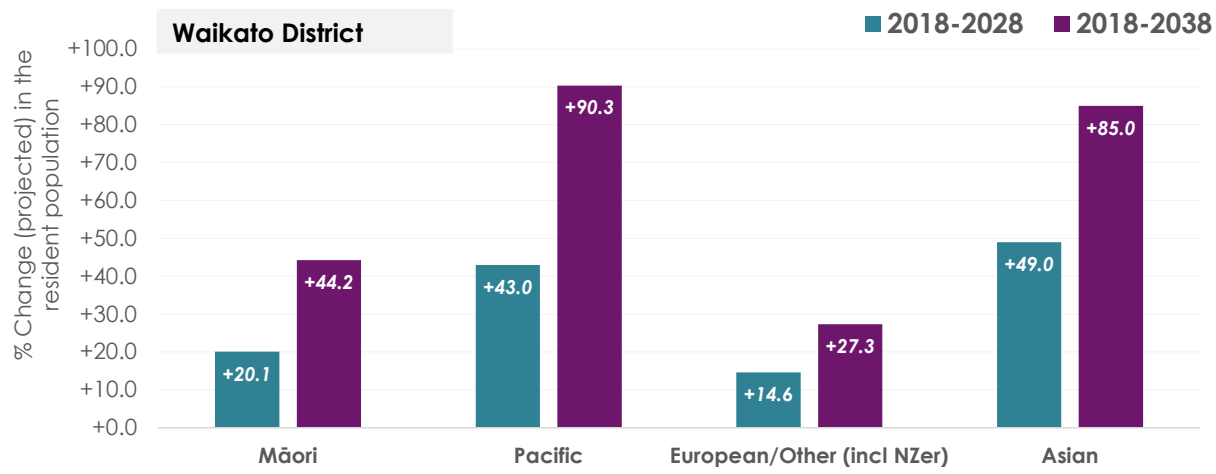
2.3 Change by ethnic group

Figure 2.5 shows the projected change in the population of each of the four broad ethnic groups over the 2018-2028 and 2018-2038 period across the Waikato District. The ethnic projection data is not available at the CAU level and therefore it is not possible to present this analysis for the Taupiri Region B.

The four groups have differing growth rates. The highest projected growth is for the Pasifika and Asian populations across the district followed by Māori. In comparison, the European/Other population group is likely to see very little growth over the next ten to twenty years. To be noted here is that the Māori population, being the indigenous group, can only grow via internal net

migration gain and fertility. Overall, Māori and Pasifika dynamics are driven by higher fertility rates, whereas for the Asian ethnic group the growth is driven by migration.

Figure 2.5 Projected change in the resident population disaggregated by broad ethnic groups, 2018-2028 and 2018-2038



3 Families and Households

This section looks at the family (by family type) and household (by household type) projections for the Waikato District with comparisons drawn from regional trends. CAU level Family and Household projections are not available and therefore this section does not include data for Taupiri Region B.

Projections based on the medium series have been used as they are considered the most suitable for assessing future family and household changes. Moreover, only medium projections have been formulated to produce demographically plausible results, by assessing both observed trends between 1986 and 2013 and likely future trends to 2038.

As per the Stats NZ definition, a **household** is either one person usually living alone, or two or more people usually living together and sharing facilities (e.g. eating facilities, cooking facilities, bathroom and toilet facilities, a living area), in a private dwelling. In other words, a household typically includes all people who occupy the same private dwelling. **Household composition** is a derived variable that classifies households according to the relationships between usually resident people. Households are classified according to the presence, number, and type of family nuclei, and the presence of related and unrelated people. The household types are:

- **One-person household:** a household containing one person usually living alone.
- **Family household:** a household containing two or more people usually living together with at least one couple and/or parent-child relationship, with or without other people.
- **Other multi-person household:** a household containing two or more people usually living together, but not in couple or parent-child relationships with each other.

Figure 3.1 shows the estimated change in the number of households in the Waikato District over the 2018-2038 period as per the Stats NZ medium series projections. Comparative data from the Waikato Region are also presented.

Across the district, the number of households are expected to increase from an estimated 27,100 in 2018 to 32,500 in 2028 and 36,900 by 2038, which is a 36.2 per cent increase. This is lower than that projected in the Future Proof Report where the number of households in the Waikato District are expected to increase by around 48 per cent over the 2018-2038 period. Irrespective of which projections are used, the projected increase in the number of households in the Waikato District is much higher than the wider Waikato Region.

When disaggregated by type, single person households are estimated to have the biggest percentage increase in the district as well as the region. Other multi-person households are likely to see the second biggest increase in the district.

Figure 3.1 Projected change in the number of households in Waikato District and Waikato Region disaggregated by household type (medium series); 2018-2028 and 2018-2038

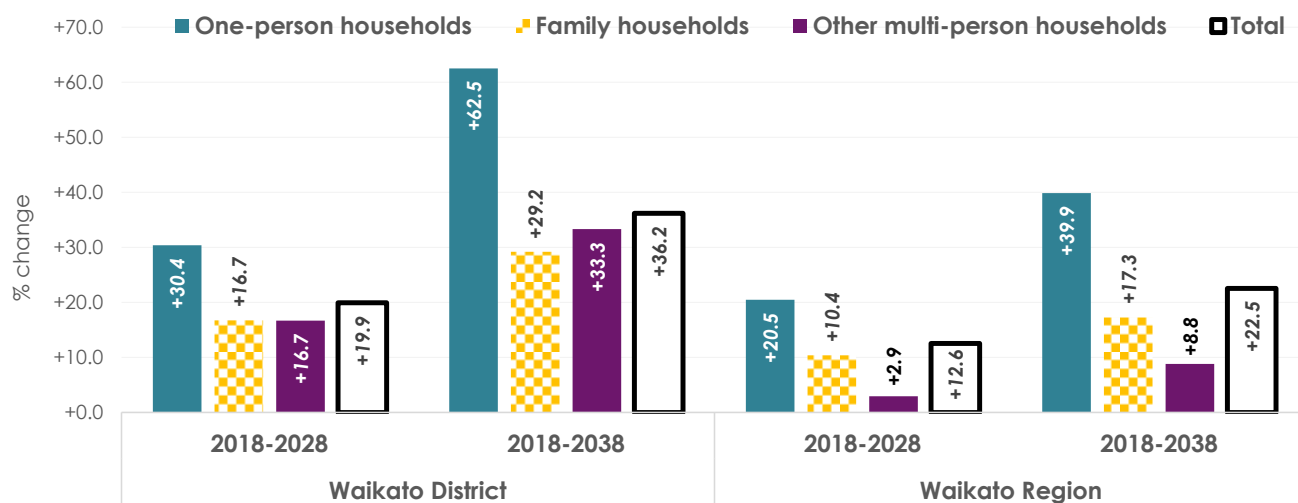
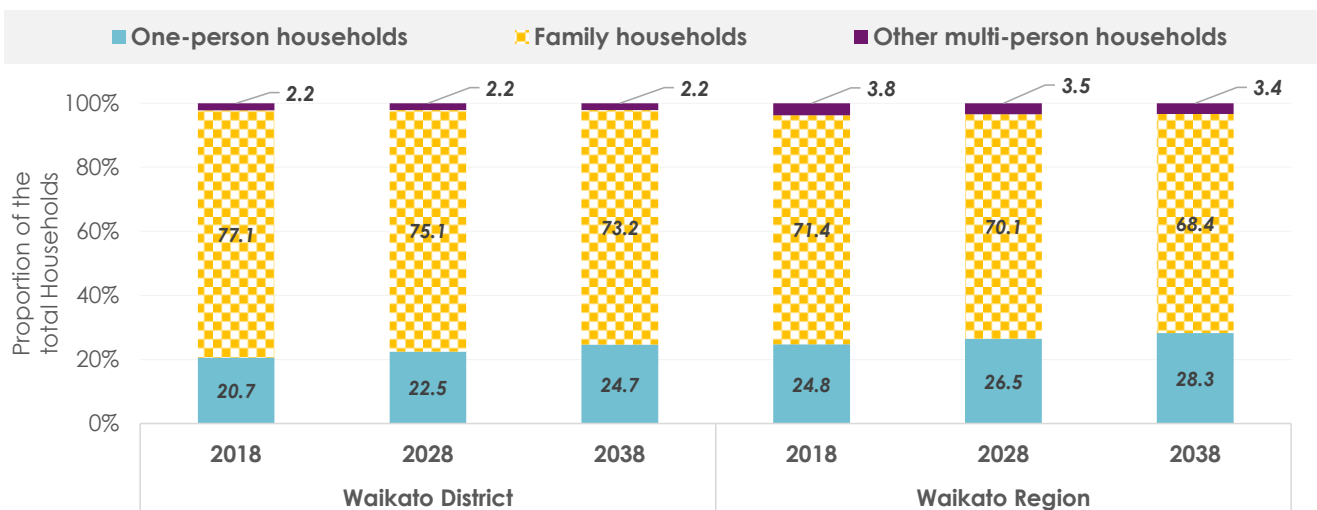


Figure 3.2 shows the household profile for the Waikato District and Waikato Region over the 2018-2038 period. Family households will continue to be the most common type of household across the district with only a small decline expected with the increase in the proportion of One-person households. A similar pattern is estimated for the region.

Figure 3.2 Projected change in the profile of households in the Waikato District and Waikato Region (medium series) over the 2018-2038 period



The Statistics New Zealand definition of a **family** is two or more people living in the same household. This definition of family excludes parents and children who live in different households. Therefore, family data included in this report relates to families within households in private dwellings. A household can contain more than one family.

Family type is a derived variable that classifies family nuclei according to the presence or absence of couples, parents, and children. A family nucleus comprises a couple with or without child(ren), or one parent and their child(ren) whose usual residence is in the same household; the children do not have partners or children of their own living in that household. Included are people who were absent on census night but usually live in a particular dwelling, and are members of a family nucleus in that dwelling, as long as they were reported as being absent by the reference person on the dwelling form. There are three family types:

- **Couple without children:** couples who don't have children and couples whose children have left home.
- **Couple with child(ren):** couples and their child(ren) who live with them.
- **One-parent with child(ren):** one adult with child(ren) who live with them.

Figure 3.3 shows the estimated change in the number of families in the Waikato District over the 2018-2038 period as per the Stats NZ medium series projections. Comparative data from the Waikato Region are also presented.

Across the district, the number of families are expected to increase from an estimated 21,900 in 2018 to 25,800 in 2028 and 28,800 by 2038, which is a 31.5 per cent increase. This is lower than that projected in the Future Proof Report where the number of families in the Waikato District are expected to increase by around 44.4 per cent over the 2018-2038 period. Irrespective of which projections are used, the projected increase in the number of families in the Waikato District is much higher than the wider Waikato Region.

When disaggregated by type, couple without children families are estimated to have the biggest percentage increase in the district as well as the region. One-parent families are likely to see the second biggest increase in the district.

Figure 3.3 Projected change in the number of families in Waikato District and Waikato Region disaggregated by family type (medium series); 2018-2028 and 2018-2038

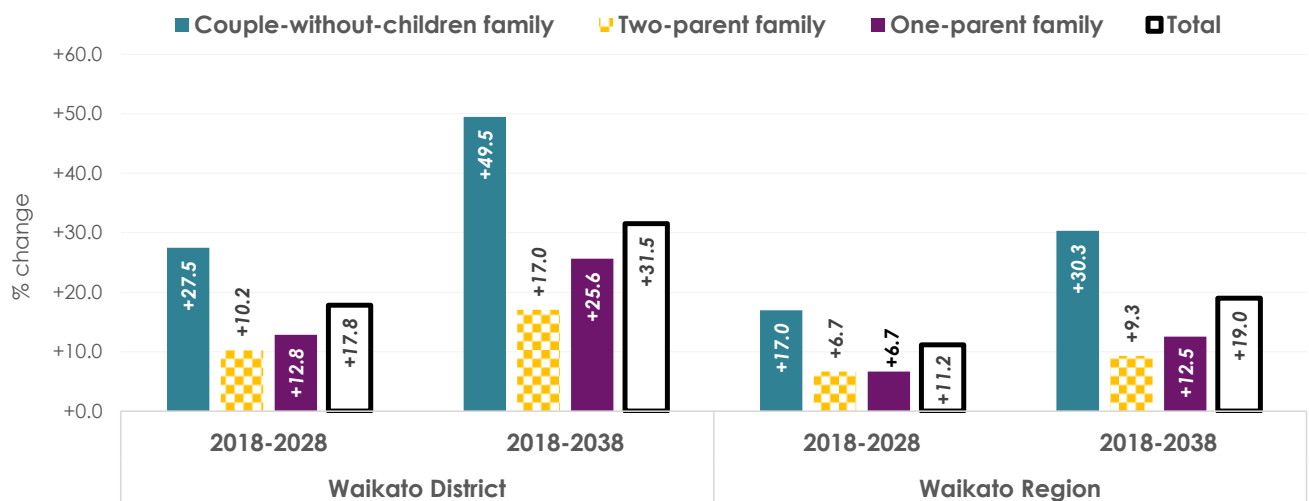
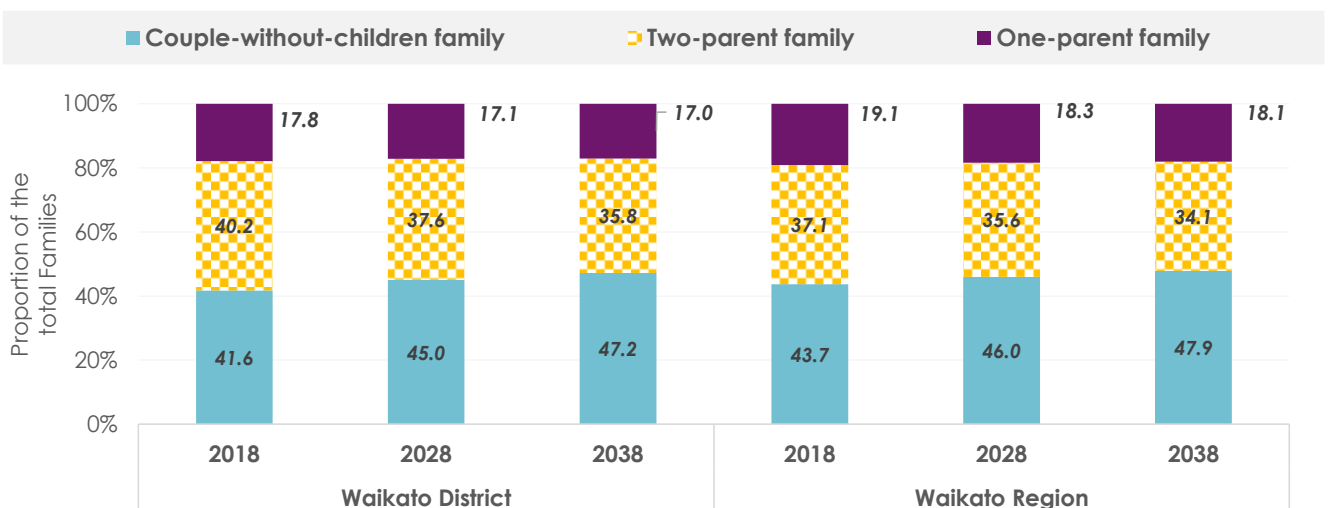


Figure 3.4 shows the family profile for the Waikato District and Waikato Region over the 2018-2038 period. In 2018, two-parent families and couple without children families were approximately equal in proportion across the district. With the projected higher rate of increase in the Couple without children family type, they are likely to constitute almost half of all families by 2038.

Figure 3.4 Projected change in the profile of families in the Waikato District and Waikato Region (medium series) over the 2018-2038 period



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