

# Three Waters and Transport Infrastructure Report

## Plan Change 81

### (Urban Rezoning - Updates to the Tasman Resource Management Plan (TRMP))

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## Executive Summary

### Infrastructure assessment framework

This report assesses whether existing and planned infrastructure can support the rezoning proposed through Plan Change 81 (PC81). The assessment identifies each area, describes the infrastructure necessary to service the proposed rezoning, identifies technical constraints or unknown information that may affect deliverability, and assigns an infrastructure category based on the status and certainty of delivery.

It draws on the 2024–2034 Long-Term Plan (LTP), 2025/26 Annual Plan, relevant Activity Management Plans, and the Nelson Tasman Future Development Strategy, with a focus on the first 10 years of investment. Where infrastructure is identified beyond the first 10 years, it is treated as an identified future pathway, not as confirmed funding.

Delivery certainty varies by settlement and infrastructure type. The category assigned to each area reflects whether the necessary infrastructure is already in place, funded and programmed, identified for future development, subject to unresolved technical uncertainty, or not currently contemplated.

Key findings from the assessment include:

- **Richmond Central and other intensification areas:** supported in principle by established networks, with increasing pressure on infrastructure networks as cumulative development occurs. Wastewater capacity, transport performance, and stormwater resilience are sensitive to sequencing and uptake assumptions.
- **Motueka and Tākaka:** major wastewater treatment plant upgrades are needed to support growth. These long-term, high-cost projects reduce delivery confidence and increase reliance on future investment decisions. Low-lying and coastal settlements: including Māpua, Motueka, Tākaka, and parts of Richmond face persistent stormwater and/or seawater inundation and wastewater inflow and infiltration issues that are expected to intensify with climate change and sea level rise.
- **Transport:** capacity in several locations depends on NZTA project timing and outcomes, creating delivery uncertainty outside Council's direct control.

Overall, the assessment identifies where infrastructure delivery is sufficiently confirmed to support rezoning and where further investigation, sequencing, funding decisions, or developer-led works are required before servicing can be confirmed. Category A is used where infrastructure is in place or under construction. Categories B1/2 are used where infrastructure is funded and programmed, identified in an asset management plan or infrastructure strategy, or otherwise has a credible delivery pathway. Category C is used where necessary infrastructure is not contemplated or where unresolved constraints mean delivery cannot be confirmed at the time of assessment. This report provides infrastructure evidence to inform PC81. It does not make planning judgements or undertake detailed engineering design.

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# 1 Introduction

## 1.1 Purpose of this Report

Tasman District Council (TDC) is preparing Plan Change 81 (PC81) to the Tasman Resource Management Plan (TRMP) to provide locations for residential, commercial, and industrial growth across several settlements. Many of the areas included in PC81 are identified for growth in the Nelson Tasman Future Development Strategy (FDS) 2022–2052 and are intended to accommodate projected demand over the short, medium, and long term.

This report provides an infrastructure-focused assessment to support statutory decision-making on PC81. It considers whether proposed zoning areas can be serviced by infrastructure that is existing, included in the current Long-Term Plan with an identified budget and delivery timeframe, or identified in adopted Council planning documents with a credible delivery pathway. It also identifies where servicing is sensitive to sequencing, delivery timing, approvals, or other dependencies because of infrastructure limitations or delivery uncertainty.

For clarity, this report distinguishes between infrastructure that is:

- existing and operational.
- included in the current LTP with an identified budget and delivery timeframe
- identified in adopted planning documents but not funded in the current LTP, or deferred beyond the current LTP period
- dependent on developer-led delivery mechanisms.

Where infrastructure constraints are identified, the report outlines the nature and scale of those constraints, the anticipated timing of infrastructure provision, and the likely responsibilities of Council and/or developers in addressing infrastructure requirements. The assessment focuses on infrastructure availability, funding pathways and programming status, identified future projects, and unresolved technical or delivery uncertainties.

The findings of this report are subject to known information constraints, including limitations in current hydraulic modelling, assumptions about development yield and uptake, and uncertainty associated with infrastructure that is identified in longer-term planning documents but not funded in the current LTP. These constraints are identified where relevant and inform the level of confidence associated with the infrastructure conclusions.

For the purpose of this report, the relevant 2024–2054 Activity Management Plans provide a supporting information base for assumptions, levels of service, capital programmes, operational expenditure, and renewal forecasting reflected in the Long-Term Plan.

Infrastructure delivery is reassessed through the three-yearly Long-Term Plan process and annual planning processes. As a result, budget allocations, project scope, and delivery timeframes may change over time. This report therefore distinguishes between infrastructure that is funded in the current LTP and infrastructure that is identified in longer-term planning documents but not yet funded.

This PC81 Infrastructure Report is intended to inform Council planners, reporting officers, decision-makers, and commissioners in their consideration of PC81, and to provide clarity to

stakeholders and developers regarding infrastructure constraints, expectations, and delivery dependencies associated with the proposed rezoning.

## 1.2 Settlements discussed in this report

Richmond, Brightwater, Wakefield, Motueka, Tapawera, St Arnaud, Tākaka, Pōhara, Māpua and Murchison.

## 1.3 Information constraints

- The infrastructure assessments in this report are based on the information available at the time of assessment. Known constraints include incomplete or evolving hydraulic modelling, assumptions about development yield and uptake, and uncertainty about the timing and funding of infrastructure not included in the current LTP.

### **Water supply modelling**

- The Richmond water hydraulic model has been updated to consider the areas proposed for development through PC81. The model review indicates that Richmond's networks are expected to provide an appropriate level of service if identified pipe upgrades are delivered.

However, the model review does not confirm additional firefighting capacity for intensification areas if higher firefighting classifications are required. Where additional firefighting capacity is needed, it may need to be provided within the development and funded by the developer.

Similar hydraulic modelling for other Council water supply networks is proposed to be progressed through the next planning cycle, subject to resourcing and prioritisation. This work will help confirm network performance and inform future staging and infrastructure delivery requirements.

Until updated modelling is available, assessments of water supply capacity and network performance outside Richmond are based on available data, known network constraints, and professional judgement, rather than fully updated hydraulic modelling outputs. This limitation may affect the confidence of water supply assessments in some locations, particularly where intensification or cumulative growth is proposed.

### **Wastewater hydraulic modelling**

- There is currently no hydraulic model for the Māpua wastewater network. Modelling is being investigated and budgeted for to improve confidence in future servicing assessments. Hydraulic modelling is also underway for the Richmond intensification area.

These information constraints are acknowledged in the relevant infrastructure assessments and should be considered when interpreting the findings in this report, particularly where infrastructure capacity, delivery timing, or dependencies are finely balanced.

## 1.4 Acronyms and Definitions

Acronyms	
ADWF	Average Dry Weather Flow
AEP	Annual Exceedance Probability
AMP	Activity Management Plan
CBD	Central Business District (general term; not a zone name)
CBZ	Central Business Zone
FDS	Future Development Strategy
GTT	Great Taste Trail
LIZ	Light Industrial zone
LPPS	Low Pressure Pumped System (LPPS)
LQS	Lower Queen Street
LTP	Long-Term Plan
MDZ	Medium Density Zone
NPD	Nelson Petroleum Distributors Ltd (Lower Queen Street)
NRSBU	Nelson Regional Sewerage Business Unit
NTLDM	Nelson Tasman Land Development Manual
NZTA	Waka Kotahi NZ Transport Agency
OLFP	(Stormwater) Overland Flow path
PS	Pump Station
RIDA	Richmond Intensive Development Area
RL	Reduced level
SLR	Sea Level Rise
SVDW	Seaton Valley Detention-Wetland
WTP	Water Treatment Plant

WWPS	Wastewater Pump Station
WWTP	Wastewater Treatment Plant
mm, m, km	millimetres, metres, kilometres
<b>Infrastructure Delivery Definitions</b>	
Funded	Infrastructure included in the current Long-Term Plan with an identified budget and delivery timeframe.
Programmed	Infrastructure scheduled within an adopted Asset Management Plan or Infrastructure Strategy but not yet funded in the current Long-Term Plan.
Identified	Infrastructure solutions that have been conceptually recognised or investigated but for which no funding or committed delivery timeframe is confirmed.
Staged Development	Development that may proceed over time, subject to sequencing, infrastructure delivery thresholds, or trigger conditions that align development or occupation with confirmed infrastructure capacity.
Sequencing	Sequencing means aligning the timing, scale, and location of development with confirmed infrastructure capacity, programmed upgrades, agreed trigger points, or developer-led works.
Deferred Development	Development that is expected to occur only once specified infrastructure upgrades or delivery pathways are confirmed or completed.
Not enabled at this time	Refers to locations where material infrastructure constraints remain unresolved and/or delivery pathways are not yet confirmed at the time of assessment, such that servicing cannot be confirmed using currently available information.
Developer-led Infrastructure.	Infrastructure that may be required to be designed, funded, and delivered by a developer, typically through development agreements or consenting processes, rather than through Council capital works programmes.

## 2 Infrastructure Category Criteria

### 2.1 Purpose of Infrastructure Categories

The infrastructure categories provide an evidence-based indication of the current status and delivery confidence of infrastructure required to service each proposed rezoning area. They

are used to distinguish between infrastructure that is already available, funded and programmed, identified but not yet funded or confirmed, subject to unresolved technical or delivery dependencies, or not currently supported by a credible delivery pathway.

The categories are not planning recommendations and do not replace the statutory planning assessment under PC81. They record the infrastructure evidence available at the time of assessment and provide a consistent basis for identifying where rezoning may need to be supported by staging, deferred development, design requirements, developer-led works, further investigation, or future Council funding decisions.

For each area, the report identifies the location, describes the infrastructure necessary to support the proposed rezoning, records known technical constraints or information gaps, and assigns a category based on the status, timing, funding, and certainty of the required infrastructure.

The categories relate only to infrastructure matters. They do not assess planning merits, demand and capacity under the National Policy Statement on Urban Development, urban form, reverse sensitivity, amenity, cultural effects, natural hazard risk, or other statutory matters except where those matters directly affect infrastructure servicing, such as stormwater management or transport access.

Section 2.2 sets out the category criteria used for this assessment.

## 2.2 Overview of Infrastructure Categories

The table below summarises the infrastructure category criteria used in this report and the infrastructure delivery implications for PC81 locations.

**Table 2: Infrastructure Categories Summary (Plan Change 81)**

Category	Applicable	Infrastructure status
<p><b>2.2.1 Cumulative demand on Infrastructure</b></p> <p>In some locations, existing or planned infrastructure may be able to support some development but may not be sufficient to support the full development capacity enabled by the proposed zoning over time. As development is progressively taken up across multiple sites, cumulative demand may reduce the remaining infrastructure capacity available for later development. The category assigned in this report reflects the information available at the time of assessment; however, cumulative uptake may affect the timing, scale, sequencing, or conditions under which development can proceed before further infrastructure upgrades, third-party works, or developer-led solutions are required.</p>		
<p><b>Category A</b></p>	<p>Infrastructure required to service the proposed rezoning is available, under construction, funded in the near term, or otherwise sufficiently committed at the time of assessment.</p> <p>High delivery confidence: no material infrastructure delivery dependencies are identified beyond standard detailed design, connection, consenting, and development engineering processes.</p>	<p>Infrastructure is:</p> <ul style="list-style-type: none"> <li>(a) in place and has sufficient capacity; <b>or</b></li> <li>(b) is under construction; <b>or</b></li> <li>(c) is funded and programmed within Years 1–3 of the current 10-year Long-Term Plan; <b>or</b></li> <li>(d) subject to a confirmed and enforceable delivery agreement (including developer agreements); <b>or</b></li> <li>(e) local/site-specific infrastructure can be delivered as part of development without reliance on unconfirmed external works; <b>or</b></li> <li>(f) servicing can be achieved on-site without reliance on Council networks.</li> <li>(g) Transport infrastructure meets one or more of (a) to (e) above.</li> </ul> <p>Where key trunk infrastructure is available but only supports initial development, the assessment notes any cumulative demand or sequencing issue separately. Refer to Section 2.2.1.</p>

<b>Category B1</b>	Infrastructure required to service the proposed rezoning is funded and programmed in the current 10-year Long-Term Plan but is not yet available.	Infrastructure is included in the current 10-year Long-Term Plan with an identified budget and delivery timeframe, generally within Years 4–10.
<b>Category B2</b>	Infrastructure required to service the proposed rezoning is identified in adopted Council planning documents or technical work, but delivery remains subject to material uncertainty at the time of assessment.	Infrastructure is recognised in Council planning frameworks, an adopted Activity Management Plan, an Infrastructure Strategy, or other technical work, but is not yet sufficiently certain to be treated as funded and deliverable. The uncertainty may relate to one or more of the following matters: <ul style="list-style-type: none"> <li>(a) developer-led delivery without a confirmed agreement;</li> <li>(b) hydraulic modelling to confirm capacity or feasibility;</li> <li>(c) dependency on third-party approvals, third-party infrastructure, land access, or external funding decisions.</li> </ul>
<b>Category C</b>	Infrastructure required to service the proposed rezoning cannot currently be demonstrated to have a credible, sufficiently defined, or reliable delivery pathway.	Infrastructure is: <ul style="list-style-type: none"> <li>(a) not funded or programmed in the current 10-year Long-Term Plan; and/or</li> <li>(b) not sufficiently defined in adopted plans, strategies, agreements, or technical work to demonstrate likely delivery; and/or</li> <li>(c) subject to unresolved constraints with no identified or feasible solution.</li> </ul>

## 2.3 PC81 sites and infrastructure category summary

The following sections apply the infrastructure categories to individual PC81 sites based on the status of necessary infrastructure, known servicing constraints, and the current level of information about delivery timing and implementation.

### Category A – Infrastructure in place or under construction

Site ID	Area / Location	Proposed zone	Dominant Infrastructure Category	Why Category Applies
T-117	52, 54, 54a Gladstone Road, Richmond	Mixed Business	A	Existing infrastructure available with sufficient capacity; subject to developer-led solutions for transport issue
T-106	34 and 36 Ellis Street, Brightwater	Commercial	A	Existing infrastructure available with sufficient capacity; no reliance on future upgrades
T-217	79 Main Road, Tapawera	Residential	A	Infrastructure is available or readily serviceable, with no material network delivery constraints identified.
T-226	Stringer Road, Redwood Valley	Papakāinga	A	Developer-led onsite servicing is anticipated, with no reticulated network delivery dependency identified.
T-245	29 and 53 Seaton Valley Road, Māpua	Residential	A	Existing servicing capacity available
T-248	5 Seaton Valley Road, Māpua	Commercial	A	Commercial demand within existing infrastructure capacity
T-249	Part 55 Higgs Road, Māpua	Rural 1	A	No reticulated infrastructure required for Rural 1 zone

<b>T-223a</b>	Champion Road	Rural 2 unserved	<b>A</b>	No reticulated infrastructure is required for the Rural 2 zoning; transport effects remain the relevant infrastructure consideration.
<b>T-238 c</b>	33 and 35 Higgs Road, Māpua	Rural 1	<b>A</b>	No reticulated infrastructure required for Rural 1 zone

### Category 'A' – (Non-growth sites / Infrastructure neutral)

Site No.	Site name	Proposed zone	Why Category Applies
<b>T-112c</b>	Richmond / Church land against Deviation	Open space	No Three Waters Infrastructure required
<b>T-115c</b>	Richmond / 405 Lower Queen Street, (Berryfield)	Open space	No Three Waters Infrastructure required
<b>T-235 a/b</b>	Māpua / Kite Park	Recreation	No Three Waters Infrastructure required
<b>T-241</b>	Māpua / Seaton Valley Road	Open space	No Three Waters Infrastructure required
<b>T-237e/f</b>	Māpua/Higgs Road	Open Space	No Three Waters Infrastructure required
<b>T-22d</b>	Central Business Zone (CBZ)	Open Space	No Three Waters Infrastructure required

**Category B – Infrastructure funded, programmed, identified, or subject to manageable delivery uncertainty**

Site ID	Area / Location	Proposed zone	Dominant Infrastructure Category	Why Category Applies
T-22a/b/c T-112b	Richmond Central Infill – Residential (RIDA)	Medium Density Residential	B2	Wastewater capacity is sensitive to timing; transport outcomes depend on mode shift; stormwater effects are manageable with design.
T-112a	Adjoins Arbor-Lea, Salisbury Road (Church site), Richmond	Residential	B1	Wastewater and stormwater constraints require yield management and design mitigation.
T-115a	405 Lower Queen Street, Richmond	Medium Density Residential	B2	Transport access and intersection constraints require coordinated layout and mitigation. Network services are available but layout dependent.
T-115b	405 Lower Queen Street, Richmond (Berryfield)	Commercial	B2	Transport access and intersection constraints require coordinated layout and mitigation.
T-232a/b	Appleby Highway (Mytton)	Medium Density Residential	B2	Wastewater sequencing and NZTA-dependent transport upgrades influence delivery timing.
T-35a	Richmond South	Light Industrial	B2	Wastewater servicing depends on trunk upgrades; stormwater works sit outside the current LTP horizon.
T-122a	Richmond South	Mixed Business	B2	Wastewater servicing depends on trunk upgrades; stormwater works sit outside the current LTP horizon.

<b>T-223b</b>	Champion Road	Residential	<b>B1</b>	Wastewater capacity and water/fire-fighting flow constraints are manageable only at low yield.
<b>T-29a–c,</b>	Wakefield Central Intensification	Medium Density Residential	<b>B2</b>	Water supply upgrade required; stormwater performance varies by location; transport upgrade not fully programmed.
<b>T-30</b>	Wakefield Central Intensification	Medium Density Residential	<b>B2</b>	Water supply upgrade required; stormwater performance varies by location; transport upgrade not fully programmed.
<b>T-108</b>	Wakefield – Bird Lane	Light industrial	<b>B2</b>	Wastewater and water servicing are dependent on trunk upgrades; stormwater requires developer-led solutions; transport upgrades are required.
<b>T-194a-c</b>	144 and 200 Whitby Road, Wakefield	(a & c) MDZ (b) Residential	<b>B2</b>	Confirmation of water supply capacity, wastewater network performance, stormwater management, transport access required but all considered to be deliverable.
<b>T-17b-</b>	College Street Motueka	Māori Purpose Zone	<b>B2</b>	Transport mitigation and design can be managed through subdivision and consenting controls, likely developer-led
<b>T-17a/c/d</b> <b>T-205</b>	College Street Motueka	Rural residential	<b>B2</b>	Transport effects are manageable through subdivision design, staging, and developer-led mitigation.
<b>T-189a</b>	82 & 84 Pā Street Motueka	Māori purpose zone	<b>B2</b>	Servicing is available in principle, subject to site-specific design, capacity confirmation, and any required developer-led works.
<b>T-171</b>	Brightwater Industrial	Light Industrial	<b>B2</b>	Infrastructure is available but capacity is dependent on upgrades, likely developer-led
<b>T-002</b> <b>T-103</b>	Brightwater infill	Medium Density Residential	<b>B2</b>	Stormwater and water upgrades are required. Water and stormwater funded in LTP. Wastewater programmed for after year 11.

<b>T-144</b>	Tākaka – Windle Street	Residential	<b>B2</b>	Wastewater, water and stormwater upgrades are required, likely developer-led. Transport contingent on access upgrades approved by NZTA, likely developer-led.
<b>T-138a</b>	Rototai Road, Tākaka	Residential	<b>B2</b>	Infrastructure timing remains uncertain and requires addressing before development proceeds, likely developer-led.
<b>T-227</b>	Onetahua Marae	Residential	<b>B1</b>	Servicing is dependent on future solutions and requires addressing before development proceeds, likely developer-led..
<b>T-140a</b>	315 Tākaka-Collingwood Road	Rural residential unserviced	<b>B2</b>	Transport effects are the relevant infrastructure consideration and are capable of being managed through site access design, staging, and consenting controls.
<b>T-182</b>	315 Tākaka-Collingwood Road	Light industrial unserviced	<b>B2</b>	Transport effects are the relevant infrastructure consideration and are capable of being managed through site access design, staging, and consenting controls.
<b>T-114a</b>	Eyles Road	Rural residential unserviced	<b>B2</b>	Transport and stormwater constraints require site-specific design and mitigation, likely developer-led
<b>T-181a</b> <b>T-219a</b>	St Arnaud	Rural residential unserviced	<b>B2</b>	Transport effects are the relevant infrastructure consideration and are capable of being managed through site access design, staging, and consenting controls.
<b>T-150</b>	Murchison	Commercial zone	<b>B2</b>	Servicing is available in principle for commercial activity, but development depends on confirmation of local network capacity, site-specific design, and any required developer-led works.
<b>T-234</b>	Murchison	Light Industrial	<b>B2</b>	Servicing is available or identifiable in principle, but development depends on confirmation of local infrastructure capacity, site-specific design, and any required developer-led works.

<b>Māpua – Category B</b>				
<b>Site ID</b>	<b>Area / Location</b>	<b>Proposed zone</b>	<b>Dominant Infrastructure Category</b>	<b>Why Category Applies</b>
<b>T-236</b>	23 and 25 Aranui Road	Commercial	<b>B1</b>	Network capacity and coastal stormwater risks require site-specific mitigation.
<b>T-237a–d</b>	Higgs Road	Medium Density Residential (a/b), Standard Residential (c/d).	<b>B2</b>	Wastewater and stormwater cumulative effects require upgrade confirmation and developer-led mitigation.
<b>T-239</b>	Part 120 Higgs Road	Commercial	<b>B2</b>	Infrastructure capacity is dependent on upgrades and developer-led solutions.
<b>T-240</b>	109 and 119 Aranui Road	Medium Density Residential	<b>B1</b>	Infrastructure capacity is dependent on upgrades and developer-led solutions.
<b>T-242</b>	150 Māpua Drive	Commercial	<b>B1</b>	Commercial demand would add loading to a constrained network
<b>T-243</b>	107a/b Aranui Road	Rural Residential (Serviced)	<b>B1</b>	Rural residential servicing is dependent on confirmed infrastructure capacity and delivery arrangements.
<b>T-244</b>	18 and 34 Stafford Drive	Light Industrial	<b>B2</b>	Industrial stormwater and transport effects require site-specific design and mitigation.

<b>T-247</b>	57, 59 and 69 Stafford Drive	Rural 1 deferred Rural Residential (Serviced)	<b>B1</b>	Infrastructure limitations, access to the gravity network, and coastal risk require sequencing and servicing confirmation.
<b>T-250</b>	59 Seaton Valley Road	Medium Density Residential	<b>B2</b>	Infrastructure capacity is dependent on upgrades and developer-led solutions.
<b>T-11a/b</b>	Seaton Valley Greenfield Land	Residential (a) and Medium Density Residential (b)	<b>B1</b>	Infrastructure capacity is dependent on upgrades and developer-led solutions.
<b>T-42a/b</b>	Part 49 Stafford Drive	Residential	<b>B2</b>	Infrastructure capacity is dependent on upgrades and developer-led solutions.
<b>T-33a/b</b>	Seaton Valley	Medium Density Residential	<b>B2</b>	Infrastructure capacity is dependent on upgrades and developer-led solutions.
<b>T-198a</b>	65 Higgins Road	Rural residential unserviced	<b>B2</b>	Transport constraints require site access design and mitigation.
<b>T-246a/b</b>	Higgs Road, Māpua	Medium Density Residential	<b>B2</b>	Incremental network pressure requires capacity confirmation and mitigation.
<b>T-238a/b</b>	33 and 35 Higgs Road, Māpua	Medium Density Residential (a/b) <i>Note: (c) Rural 1 in category A</i>	<b>B2</b>	Wastewater cumulative capacity at the Māpua wharf is a limiting factor.

### Category C – Infrastructure not contemplated or delivery cannot currently be confirmed

Site ID	Area / Location	Proposed zone	Dominant Infrastructure Category	Why Category Applies
T-233	McGlashen Street Redevelopment, Richmond	Central Business Zone (CBZ)	C	Offsite stormwater effects, cumulative wastewater loading, and transport pressure mean the delivery pathway is not yet sufficiently defined or reliable at the time of assessment.
T-178a	22-52A Gladstone Road, Richmond	Medium Density Residential	C	Wastewater servicing depends on trunk upgrades and NZTA-related transport uncertainty.
T-171a	Brightwater Industrial	Light Industrial	C	Infrastructure delivery pathway is not yet sufficiently defined or reliable to provide confidence at the time of assessment.
T-228	Motupipi Street, Tākaka	Light Industrial	C	No confirmed wastewater solution is available.
T-229	Motupipi Street, Tākaka	Light Industrial	C	No confirmed wastewater solution is available.
T-230	Motupipi Street, Tākaka	Light Industrial	C	No confirmed wastewater solution is available.
T-190a	318 and 342 High Street, Motueka	Medium Density Residential	C	Wastewater treatment plant constraint and long-term upgrade dependency mean the delivery pathway is not yet sufficiently defined or reliable at the time of assessment.

<b>T-190b</b>	Whakarewa Street, Motueka	Medium Density Residential	<b>C</b>	Wastewater treatment plant constraint and long-term upgrade dependency mean the delivery pathway is not yet sufficiently defined or reliable at the time of assessment.
<b>T-190d</b>	High Street, Motueka	Medium Density Residential	<b>C</b>	Wastewater treatment plant constraint and long-term upgrade dependency mean the delivery pathway is not yet sufficiently defined or reliable at the time of assessment.
<b>T-104 a/b</b>	Katania Heights Intensification, Brightwater	Medium Density Residential	<b>C</b>	Dependent on future infrastructure delivery and transport resolution.

### 3 Richmond Infrastructure Assessments

AMP 2024–2054 AMP capital programme / identified infrastructure provision							
Wastewater (AMP ID)		Water (AMP ID)		Stormwater (AMP ID)		Transport (GL)	
<b>96097</b> Richmond Intensification - Increase capacity of reticulation.	Yrs 1, 2–3 \$1.2m	<b>86047</b> Richmond WTP Capacity Upgrade	Yrs 3–4 \$740k	<b>66097</b> Richmond Intensification Stormwater Capacity Upgrades Years 1–30 annual programme to address capacity issues throughout the core urban area.	Yrs 1–10 200K for 5 years, then 500K per annum = \$3.5m Yrs 10–30 = \$10m	425620031 McShane / Lower Queen Intersection Upgrade	Yrs 5–6 \$2.9M
<b>96098</b> Richmond Intensification - Oxford Street wastewater main	Yrs 5–6 \$1.1m	<b>86050</b> Pipe Renewals in 6 Richmond Streets	Yrs 3–6 \$5.109m	<b>66044</b> Deviation SW Improvements	Yrs 9–10 \$0.1M Yrs 11 \$2.2M	0425620070 Richmond offroad shared paths	Yrs 5–9 \$1.8M

		<b>86051</b> Lower Queen St Main capacity upgrade	Yrs 1–4 \$4.553m			0517620018 Paton Road Improvements	Yrs 10–30 \$5.8M
		<b>86112</b> Gladstone Rd New Main (Queen St to Three Brothers)	Yrs 1-4 \$3.58m			0556620074 Lower Queen Street Widening Stage 1 (including Berryfield Drive intersection)	Yrs 5–7 \$8M
		<b>86178</b> Richmond reticulation upgrades to service growth	Yrs 4–9 \$19.6m				
<p><b>Note: Amounts shown beyond Year 10 indicate longer-term AMP/Infrastructure Strategy provision and should not be read as confirmed LTP funding unless included in the current 10-year LTP budget.</b></p>							

## 3.1 Richmond

### Overview

Richmond is Tasman's primary urban centre and is expected to accommodate a significant proportion of the growth enabled through Plan Change 81. Proposed zoning focuses predominantly on residential intensification within the existing urban area, with limited additional commercial and light industrial development.

At a strategic level, Richmond benefits from established trunk infrastructure across all four core networks: water supply, wastewater, stormwater, and transport. However, infrastructure delivery certainty decreases as intensification uptake increases, particularly where upgrades are staged over long timeframes and available capacity is sensitive to the rate, location, and sequencing of development.

Richmond's current and planned infrastructure is generally sufficient at a trunk level, but development capacity remains sensitive to the timing, sequencing, and location of growth. This supports a range of classifications across PC81 sites, from existing or funded servicing through to Categories B1/B2 or Category C where delivery dependencies remain.

### Distinction between Network Wide and Localised Infrastructure Constraints

References in this report to infrastructure being 'available' relate primarily to network-wide capacity and identified servicing pathways, rather than confirming the absence of localised reticulation, pressure, downstream capacity, or site-specific connection constraints.

In several parts of Richmond, infrastructure delivery confidence is influenced by:

- localised pipe capacity or pressure limitations,
- downstream bottlenecks sensitive to cumulative uptake, and
- stormwater ponding or overland flow paths (OLFPs) during major events.

These constraints typically require staging, yield moderation, developer-funded upgrades, or alignment with future Council works, rather than precluding development altogether. This distinction underpins the application of Categories B1/2 across much of the Richmond urban area.

For Wakefield, Brightwater, Richmond, and Māpua growth areas where wastewater is conveyed via Council's local trunk wastewater networks to the Nelson Regional Sewerage Business Unit's Bell Island Wastewater Treatment Plant, the immediate constraint is expected to be the capacity, sequencing, and upgrade timing of Council's wastewater network, rather than available treatment capacity at Bell Island.

### Water Supply

At a network scale, Richmond is supplied by an established water system supported by programmed upgrades within the 2024–2054 Water Activity Management Plan and the current Long-Term Plan. These upgrades reduce the likelihood of system wide failure and are intended to support continued growth over time. The network is presently performing well.

The Richmond water hydraulic model has been reviewed to consider the areas proposed for development through PC81. The review indicates that Richmond's networks are expected to provide an appropriate level of service if identified pipe upgrades are delivered. However, the

review does not confirm additional firefighting capacity for intensification areas if higher firefighting classifications are required.

This uncertainty supports a Category B1 or B2 classification where development must align with model confirmation, infrastructure sequencing, and, where necessary, developer-led and funded local upgrades.

### **Wastewater**

Wastewater servicing represents one of the most significant infrastructure constraints associated with intensification in Richmond. While the current network can accommodate some additional growth, several catchments are operating with limited spare capacity, and downstream constraints are sensitive to both the rate and spatial pattern of development.

The Long-Term Plan includes funding for several wastewater projects intended to support future growth. However, key servicing investigations remain underway, and some upgrades are identified beyond the first 10 years of the LTP. Those longer-term projects should not be treated as confirmed funded works unless they are brought into the current LTP or Annual Plan.

If growth proceeds ahead of infrastructure delivery, wastewater constraints may result in reduced levels of service, increased overflow risk, or compliance risk. The scale of that risk will depend on the rate, location, and timing of development uptake and the delivery of programmed upgrades.

Policy advice for this assessment assumed a *15% uptake of intensification across Richmond over a 30-year period*<sup>1</sup>. If actual uptake exceeds this assumption or occurs in a dispersed pattern, then wastewater constraints will increase.

Wastewater servicing for Richmond, particularly where development proceeds ahead of key upgrades, is generally consistent with Category B1 or B2 where there is a funded, programmed, or otherwise credible delivery pathway. Where the timing, funding, or deliverability of required infrastructure remains insufficiently defined, a Category C classification is applied.

### **Stormwater**

Stormwater infrastructure in Richmond is constrained by flat topography, historic development patterns, and increasing rainfall intensity. While the urban area is generally serviced for minor storm events, localised gaps in small event conveyance remain, with surface ponding and overland flow paths becoming more evident during larger rainfall events.

The Long-Term Plan provides for staged stormwater investment within the first 10 years, with further longer-term works identified beyond that period in the AMP. Longer-term works should be treated as future identified infrastructure rather than confirmed funded delivery.

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<sup>1</sup> The 15% intensification uptake rate over 30 years is a projection from the **Nelson Tasman Future Development Strategy (FDS) 2022-2052** and associated council hearing deliberations, which influences growth planning in Richmond. This figure was retained in council deliberations (May 2022) for calculating future housing capacity. [1, 2, 3]

These works are expected to improve network performance over time; however, they do not remove the likelihood of localised flooding, particularly where site-specific mitigation has not yet been implemented.

On that basis, and where development incorporates appropriate site design responses, effects are generally able to be managed through consenting controls and staging. This is predominantly consistent with a Category B1 or B2 classification.

## **Transport**

Transport outcomes in Richmond are sensitive to both the scale of growth enabled by PC81 and the extent to which mode shift objectives are achieved. Intensification increases demand on the road network, parking supply, and key intersections, particularly in the absence of significant changes in travel behaviour.

While the LTP includes funding for targeted transport upgrades, several projects have been deferred beyond 2034. This sequencing means that in some areas, growth may occur ahead of transport infrastructure delivery. Network performance is also influenced by external factors, including integration with NZTA programmes and the implementation of the Walking and Cycling Strategy.

Where anticipated mode shift outcomes are not achieved, transport network performance may deteriorate, including increased congestion or access constraints. The resulting infrastructure category depends on the site-specific context, the status of required transport upgrades, and cumulative demand, as described in Section 2.2.1.

## **Richmond – Overall Infrastructure Conclusion**

In summary, Richmond has generally available trunk infrastructure, but delivery confidence is influenced by timing, cumulative demand, and sequencing. The overall category profile supports an approach that:

- enables growth in principle,
- manages delivery through staging and sequencing, and
- avoids assuming immediate or unconditional development capacity.

This approach underpins the Category B1, B2 and Category C classifications applied throughout the Richmond assessments.

### 3.2 Richmond Central Infill (T-22a-d, and T-112b)



Figure 1 T-22a-d, and T-112

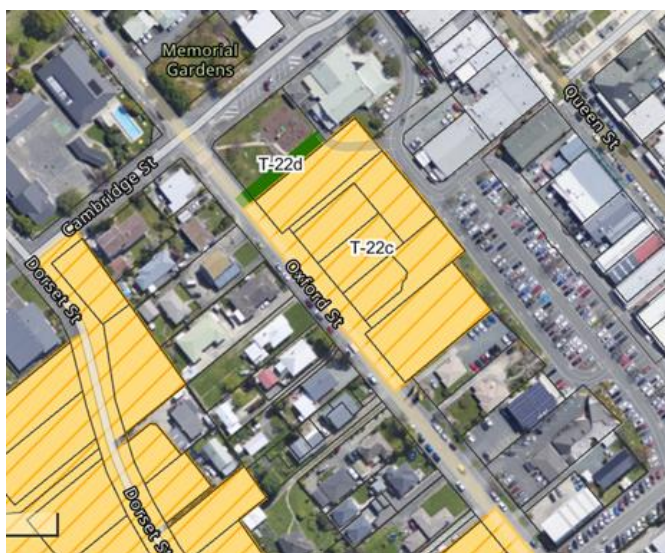


Figure 2 T-22c & d.

#### Richmond Central Assessment Scope and Growth Assumptions

For the purposes of this Infrastructure Report, it is proposed that the Richmond Central intensification is undertaken at a whole-of-catchment scale. Wastewater infrastructure staff have raised concerns that ad hoc, dispersed development across the intensification area makes network upgrades inefficient, costly, and difficult to plan and fund. Staging development (sequencing) from the bottom of the catchment provides a more appropriate and manageable infrastructure delivery approach.

The assessment area includes land previously subject to the Richmond Intensive Development Area (RIDA) provisions that are proposed to be replaced through Plan Change 81, together with additional infill sites within the Richmond Central area where intensified development is enabled by the plan change.

The dwelling yield assumptions referenced in this report represent a single, combined long-term indicative yield (1,720 dwellings<sup>2</sup>) across the Richmond Central intensification area. These assumptions are used to inform high-level infrastructure capacity, timing, and delivery issues, and are not intended to be interpreted as additive between sections. Where individual sites or sub-areas (including former RIDA locations) are discussed, this is to describe site specific servicing constraints, sequencing considerations, or delivery mechanisms only, and does not indicate additional or separate growth assumptions beyond the combined Richmond Central yield.

Site	Current Zone	Proposed Zone	Description
T-22a	Residential (RIDA).	Medium Density Residential Zone <i>Richmond High Density Precinct (orange cross hatch)</i>	PC81 will replace RIDA rules.  *Total yield estimated at 1,720 dwellings over 30 years.
T-22b Includes 2 sites fronting Champion Road	Residential (RIDA).	Medium Density Residential Zone	
T-22c	Central Business Zone (CBZ)	Medium Density Residential Zone	
T-22d	Central Business Zone (CBZ)	Open Space	
T-112b	Residential (RIDA).	Medium Density Residential Zone	

\*Estimated yield (provided) – used as the basis for assessment statements in this report.

### 3.2.2 Infrastructure assessment– Category B2

Intensification within this area is anticipated to occur incrementally over time rather than as a single stage development. The area has been identified as a priority for rezoning.

As part of the Richmond Intensification Programme, three key wastewater infrastructure initiatives have been identified. These include upgrades to increase reticulation capacity within the Croucher and William Street catchments, the installation of new reticulation beneath State Highway 60 to service the Arbor-Lea catchment, and a third project currently

<sup>2</sup> Barker and Associates memorandum dated 24 sept 2024 ‘Revised Capacity Estimates – ‘Proposed Urban Growth Plan Change’

underway to investigate additional infrastructure requirements for the wider area. The outcome of this investigation is expected to inform project prioritisation and the staging of wastewater upgrades. Accordingly, the infrastructure assessment focuses on the capacity, timing, and delivery dependencies associated with servicing this level of growth.

### **Water supply**

Water supply upgrades are programmed, and funding is currently allocated within Council's Water Supply Asset Management Plan programme of capital expenditure. These projects include trunk main upgrades along Lower Queen Street and Gladstone Road (Years 1–4), pipe renewals (Years 3–6), and growth-related reticulation upgrades (Years 4–9).

As noted previously, the existing water hydraulic model for Richmond has been reviewed and indicates Richmond's network will generally cater for the proposed PC81 areas of development. There remains uncertainty regarding localised level-of-service performance under higher density development scenarios relating to the changes proposed in the current review of the Firefighting Water Supply Code of Practice (the Code). In the revised Code, most houses, or townhouses on sites with a density of a dwelling per 400 m<sup>2</sup> would be reclassified as 'high density residential'. The required water flow rate for that category increases from 25 L/s to 60 L/s. A significant portion of network pipes would require upgrading to achieve this level of flow in new infill development and urban intensification areas. The Council does not have this level of investment planned. The developer would need to cater for this level of firefighting capacity within the development.

This reflects the distinction between network wide water supply and cumulative or site specific delivery issues, as outlined in Section 3.1.

### **Wastewater servicing**

Wastewater infrastructure is the dominant servicing constraint for Richmond Central intensification. Initial investigations indicate that parts of the trunk network can accommodate some growth; however, supporting the full indicative yield will depend on delivery of key upgrades, including the proposed Fittal Street main.

Low Pressure Pumped Systems (LPPS) may enable limited early development but introduce operational and maintenance considerations and do not resolve downstream gravity constraints. If uptake exceeds assumed levels or proceeds ahead of programmed upgrades, remaining downstream capacity may limit the timing, scale, or sequencing of further development.

Wastewater servicing is consistent with Category B2 because a credible delivery pathway has been identified, but that pathway depends on staged development, confirmation of available capacity, and alignment with programmed or future infrastructure upgrades. Where development proceeds ahead of those upgrades, staging, deferred development, or developer-led servicing solutions may be required.

### **Stormwater servicing**

Stormwater capacity varies across the Richmond Central area. Parts of the central area are currently unserved by a public network and much is subject to notable surface water during 1% AEP storm events. Based off an assessment of flood hazard derived from both depth and velocity as outlined in Appendix C, higher stormwater / hazard affected locations have been excluded from the PC81 sites. Other areas remain developable but will require

site-specific stormwater assessment and extensions or upgrades of public networks or other mitigation at subdivision or other consenting stage.

Planned Council projects, including upgrading of stormwater networks within the PC81 area are directly linked to the expected growth. Others such as AMP ID 66044 (Years 9–11), are intended to reduce ponding near the Richmond Deviation. This does not directly benefit the PC81 area but partly mitigates the downstream inundation impact of additional imperviousness facilitated by the plan change.

Council's stormwater programme includes funded investment within the first 10 years, and longer term identified provision beyond Year 10. The longer term component should not be treated as confirmed funded delivery. But the timing and location of specific upgrades will remain responsive to development uptake. Some sites will require developer-funded onsite mitigation to meet required levels of service.

Stormwater servicing varies across the Richmond Central area, with known surface flow paths and localised ponding during larger rainfall events. While parts of the area are currently unserviced, development remains credible where site-specific mitigation, network extensions, and upgrades are provided. Planned Council investment will improve network performance over time, but delivery is responsive to development uptake. As a result, stormwater servicing is dependent on detailed design responses, staging, and, where required, developer-led mitigation measures.

On this basis, stormwater servicing is predominantly consistent with Category B1 or B2 reflecting a manageable servicing constraint addressed through design and progressive infrastructure delivery.

## **Transport**

Intensification in Richmond Central is expected to generate lower per dwelling transport impacts than greenfield development, due to proximity to key destinations (including employment, education, recreation, and shopping) and quality public transport resulting in shorter trip lengths. However, this wider strategic benefit does not eliminate operational constraints.

Growth will increase demand on existing corridors, place pressure on limited road space, and reduce availability of on-site parking. The transport system's ability to absorb this growth is highly dependent on achieving walking and cycling mode-shift targets, as set out in the 2022 Walking and Cycling Strategy.

Transport upgrades that would support intensification (including key intersection and walking and cycling improvements) have been included in the Walking and Cycling and Infrastructure Strategies but deferred beyond 2034 in the current LTP and not currently funded within the first 10 years.

There has also been strong public pushback against some walking and cycling infrastructure proposals. Without a broader shift in community expectations and travel behaviour, achieving the walking and cycling infrastructure changes needed to support intensification and mode shift is likely to remain challenging.

Any growth enabled through PC81 is likely to increase traffic volumes on the state highway network through and around Richmond, including SH6 (Gladstone Road, the Richmond Deviation, and Whakatu Drive) and SH60 (Appleby Highway). This may increase pressure

for further state highway capacity improvements, including demand for the Hope Bypass. However, concentrating a greater share of growth within the Richmond intensification area is likely to place less pressure on the state highway and local road networks than distributing equivalent growth to outlying townships, because trips are more likely to be shorter and capable of being served by walking, cycling, and public transport. This benefit depends on achieving meaningful mode shift and on local transport upgrades being delivered in step with growth.

Planned upgrades and strategic initiatives provide a pathway to accommodate some growth, but several projects are staged beyond the current LTP period or depend on external delivery programmes. Where development proceeds ahead of these improvements, transport network performance may be affected. Transport servicing for Richmond Central is therefore treated as a material delivery dependency and is relevant to the Category B2 classification.

### Overall Infrastructure Servicing Conclusion

Richmond Central intensification has a moderate to high level of infrastructure servicing dependency, primarily due to wastewater network capacity and the timing of transport improvements. Infrastructure solutions are identifiable and, in several cases, programmed; however, the ability to service the full enabled development capacity will depend on sequencing, investigation outcomes, cumulative uptake, and developer-led contributions. On this basis, Richmond Central is appropriately classified as **Category B2**, reflecting a credible infrastructure delivery pathway while recognising that cumulative demand may affect the timing, sequencing, or extent of development before further upgrades or mitigation are delivered.

### 3.3 McGlashen Street redevelopment – Richmond Central (T-233)



Figure 3 T-233 (x2 orange areas)

#### 3.3.1 Proposal and planning context

Site	Current Zone	Proposed Zone	Description
T-233	Commercial	Central Business Zone (CBZ)	An increase in permitted Building coverage from 75% to 100%.

### 3.3.2 Infrastructure assessment– Category C

The infrastructure assessment for T-233 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed increase in permitted building coverage from 75% to 100%.

The site is located within an established and serviced part of Richmond Central. However, the proposed increase in building coverage would contribute to intensification within a constrained central urban catchment. The key infrastructure considerations are therefore related to cumulative network performance, downstream stormwater effects, and the extent to which required mitigation can be defined, secured, and delivered.

#### **Water supply**

Water servicing is provided via the existing Richmond water supply network. Council has identified and programmed a range of water supply upgrades intended to support growth and intensification in central Richmond.

While water connections to the site are available, increased building coverage may increase peak demand, including fire-fighting demand associated with larger building footprints and intensification.

Water supply is not identified as an absolute servicing constraint for T-233. However, firefighting requirements and any associated upgrades would need to be confirmed through detailed design and consenting processes and, where required, provided by the developer.

#### **Wastewater servicing**

Wastewater servicing for T-233 is subject to the same network constraints identified for Richmond Central intensification. The site does not introduce a unique wastewater constraint; however, it contributes to cumulative loading on a network with known downstream bottlenecks and programmed upgrade dependencies.

While some capacity exists within the trunk network, additional development is dependent on the timing of programmed trunk upgrades, and any developer-funded local reticulation works required at the time of development.

Wastewater servicing is therefore capable of being addressed in principle, but remains dependent on sequencing, confirmation of available capacity, and alignment with wider Richmond Central wastewater upgrades.

#### **Stormwater servicing**

Stormwater is the dominant site-specific reason for the Category C classification.

T-233 is located uphill of an area where stormwater ponding is already known to occur, particularly around Gladstone Road and the Richmond Deviation. Increasing permitted building coverage from 75% to 100% would materially alter runoff characteristics by increasing roof area, reducing opportunities for infiltration, and increasing reliance on engineered detention or other mitigation.

Detention does not fully neutralise stormwater effects in all circumstances. Beyond an effective impervious coverage of approximately 70%, further increases in building coverage should not be assumed to be hydrologically neutral without detailed site-specific assessment. If the proposal proceeds without defined and secured mitigation, additional

runoff could contribute to downstream ponding and flood effects during larger rainfall events, including 1% AEP events.

Potential mitigation measures, such as engineered green roofs, on-site detention, stormwater reuse, or targeted network upgrades, may reduce effects. However, these measures are site-specific and are not yet defined, costed, secured, or confirmed as deliverable. For that reason, stormwater servicing does not currently provide a sufficiently defined delivery pathway to support a Category B classification and is categorised as C.

## **Transport**

Transport effects associated with T-233 are primarily cumulative and align with the wider Richmond Central transport assessment.

The proposal does not introduce new access points or change existing access arrangements. However, increased building coverage may reduce opportunities for on-site parking unless parking is incorporated within the building footprint. It may also contribute incrementally to demand for limited road space and network capacity in an area where several supporting transport upgrades are deferred beyond the current Long Term Plan horizon.

Transport effects are not the sole driver of the Category C classification. However, they contribute to the overall servicing dependency because network performance relies on the timing of wider transport improvements and the extent to which mode-shift objectives are achieved.

## **Overall Infrastructure Servicing Conclusion**

T-233 is appropriately classified as **Category C**.

The site is within an established serviced urban area, and individual infrastructure responses may be technically available. However, the proposed increase to 100% building coverage introduces unresolved stormwater servicing issues in a catchment with known downstream ponding and constrained stormwater performance.

At the time of assessment, the (onsite and/or offsite) stormwater mitigation required to support the proposal has not been defined, costed, secured, or confirmed as programmed.

Wastewater and transport considerations add further dependency on wider Richmond Central infrastructure sequencing and cumulative uptake assumptions but do not contribute to the C categorisation.

On this basis, the overall infrastructure delivery pathway for T-233 is not yet sufficiently defined or reliable to support rezoning as a Category B site. Reclassification could be reconsidered if future work confirms a secured stormwater management approach, any required network upgrades, development staging, and associated delivery responsibilities.

### 3.4 Alongside Salisbury Road for Intensification, Richmond (T-112a)

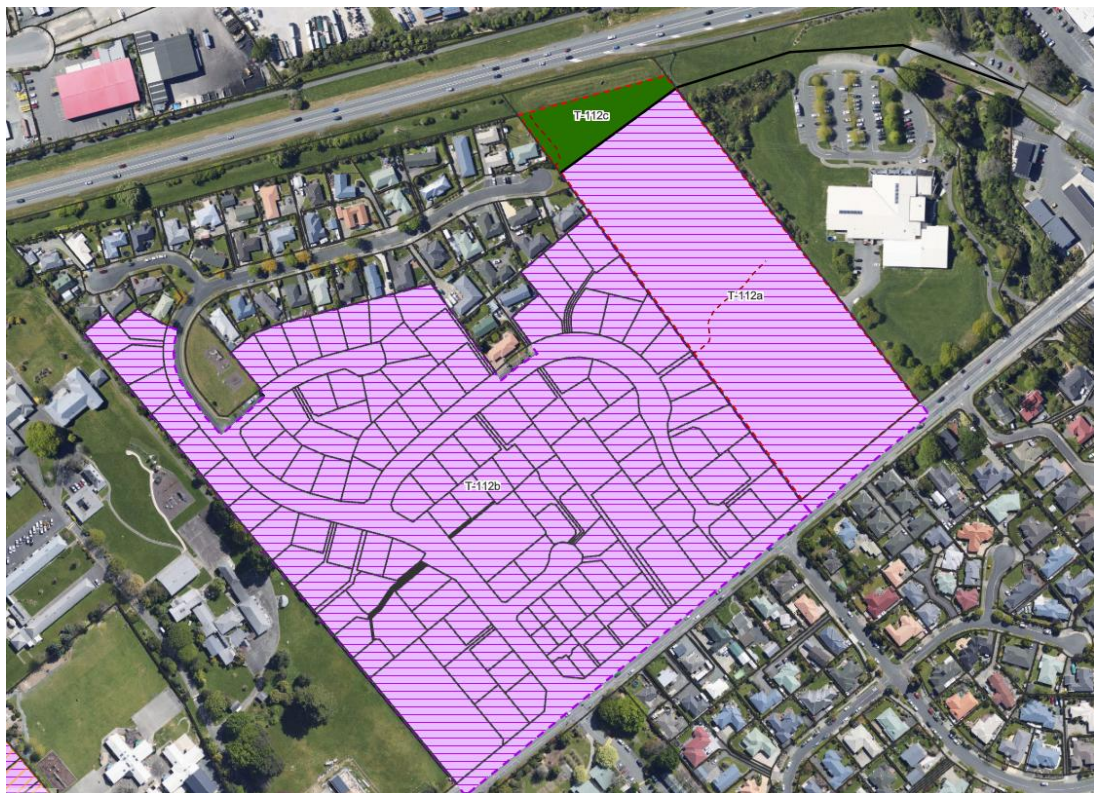


Figure 4 T-112a, b & c (Indicative Road shown as black line, indicative walkways shown as dashed red line)

The infrastructure considerations for T-112b outlined in this section form part of the wider Richmond Central intensification assessment (1720 dwellings) described in Section 3.2 and do not represent additional development demand beyond the combined yield assumed for that area.

#### 3.4.1 General description of changes proposed.

Site	Current Zone	Proposed Zone	Description
T-112a	Tourist services	MDZ Residential	Part of the Baptist Church land zone changes from Tourist services to MDZ residential is adjoining T-112b (Arbor-Lea). WW servicing capacity up to 30 lots
T-112b	Residential	MDZ Residential	Richmond intensification overall is estimated at 1,720* dwellings. This includes areas T-22a and T-22b.
T-112c	Open space part community activity	Open space	No infrastructure servicing requirements or delivery constraints are identified for the open space component.

\*Estimated yield (provided) – used as the basis for assessment statements in this report.

### 3.4.2 Infrastructure assessment – Category B2

The infrastructure assessment for T-112a and T-112b considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed zoning changes.

These sites are located within an established residential area adjacent to Richmond Central. They are either partially serviced or capable of being serviced through existing infrastructure, programmed upgrades, and developer-led works. Development is expected to occur incrementally, and servicing is dependent on yield limits, sequencing, local upgrades, and detailed design responses.

On this basis, T-112a and T-112b are classified as Category B2, reflecting a credible infrastructure delivery pathway subject to confirmed servicing capacity, staging, and developer-funded upgrades where required.

T-112c is proposed as open space, and no infrastructure servicing requirements or delivery constraints are identified for that component and is classified as Category A.

#### **Water supply**

Water servicing is currently available to the surrounding area via the Richmond water supply network.

Planned growth-related water supply upgrades are scheduled in Years 4–9 of the Asset Management Plan and are expected to improve network capacity and resilience.

Water supply is therefore capable of supporting the proposed zoning change in principle. Localised capacity will need to be confirmed in terms of firefighting requirements related to the proposed changes to the Firefighting Water Supplies Code of Practice. Any local network upgrades required to service intensive development to meet high density firefighting rules would be developer-funded.

#### **Wastewater servicing**

For T-112a, the existing wastewater network has confirmed capacity to accommodate up to **30 additional lots**, providing a clear upper bound for near term development without major network upgrades.

Wastewater servicing for T-112b aligns with the wider Richmond Central assessment outlined in Section 3.2.2. Incremental development is expected to be supportable, subject to cumulative network constraints and standard developer-funded local reticulation works where required.

On this basis, wastewater servicing is consistent with Category B1, provided development remains within confirmed servicing limits for T-112a and is sequenced with wider Richmond Central infrastructure delivery for T-112b.

#### **Stormwater servicing**

Stormwater servicing infrastructure in the area is undersized for larger storm events, with known shallow flooding during 1% AEP events. The primary discharge systems serving

T-112a and T-112b were designed for 10% AEP events and will require standard mitigation responses as development proceeds.

Based on hazard categorisation work undertaken by the Infrastructure Planning Team, higher hazard flood areas adjacent to the Richmond Deviation have already been mostly excluded from PC81. Remaining areas can be developed where site-specific stormwater design is undertaken in accordance with the Nelson Tasman Land Development Manual.

Stormwater servicing is therefore consistent with Category B1, reflecting a design-led servicing constraint that can be addressed through site design, consenting controls, and staging.

## **Transport**

Transport effects for T-112a and T-112b are influenced by their location within an established residential catchment with limited connectivity and long cul-de-sac road layouts, particularly within the Arbor-Lea area.

The existing long cul-de-sac road configuration does not fully meet Nelson Tasman Land Development Manual requirements for higher-yield development. However, given the anticipated scale and gradual pace of redevelopment, transport effects are expected to remain manageable in the short to medium term, subject to access design, staging, and a future road connection to Champion Road.

Transport servicing is therefore a material delivery dependency. The timing and scale of development should be aligned with access design, future connectivity improvements, and development staging. If cumulative demand increases before those matters are resolved, the transport component may move toward Category C.

## **Overall Infrastructure Servicing Conclusion**

The Salisbury Road and adjoining Arbor-Lea sites are appropriately classified as **Category B2**.

Infrastructure solutions are available or identifiable, with defined upper limits on development intensity and the ability to address servicing constraints through developer-funded local upgrades, site-specific design, and alignment with Richmond-wide infrastructure programmes.

For T-112a, the confirmed wastewater servicing limit of up to 30 additional lots provides an important control on development scale. For T-112b, servicing is linked to the wider Richmond Central infrastructure pathway. Stormwater and transport matters are capable of being addressed through design, staging, consenting controls, and future connectivity improvements.

On this basis, the sites have a credible infrastructure delivery pathway, subject to yield limits, developer-led upgrades, and sequencing with wider Richmond infrastructure delivery.

### 3.5 405 Lower Queen Richmond, (Berryfield) (T-115a, T-115b)

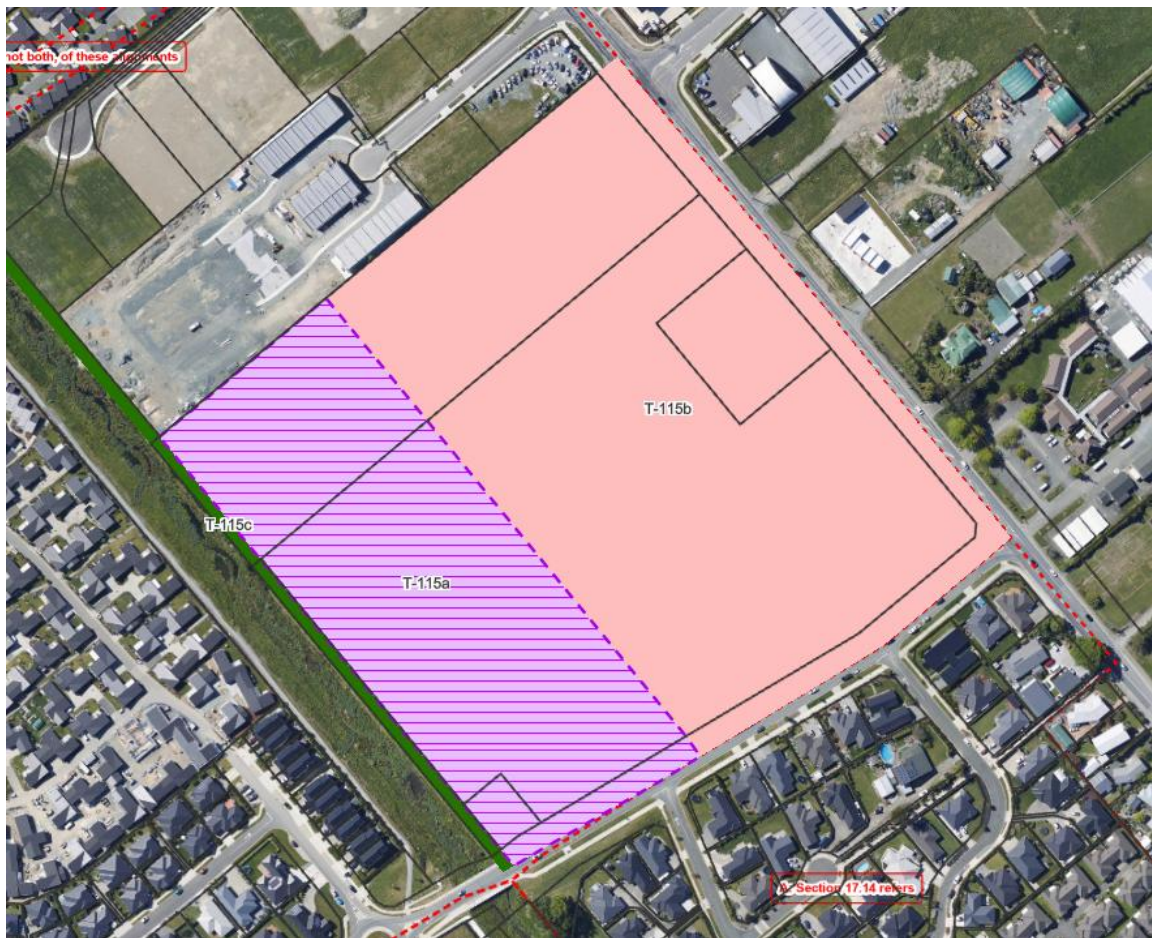


Figure 5 T-115a, T-115b, T-115c

#### 3.5.1 Proposed Zoning Changes

Site	Current Zone	Proposed Zone	Description
T-115a	Mixed Business	Medium Density Residential with RIDA overlay	90 medium density dwellings
T-115b	Mixed Business	Commercial	Expanded on the FDS site. Discussions have occurred with landowners.
T-115c	Mixed Business	Open Space	Rezoning to provide a strip of land for open space; no infrastructure required.

#### 3.5.2 Infrastructure assessment – Category B2

The infrastructure assessment for T-115a, T-115b, and T-115c considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed zoning changes.

The sites are located within an established mixed-use area on Lower Queen Street and form part of the broader Berryfield development area. Existing Council water, wastewater, stormwater, and transport infrastructure is available in the surrounding network. However, servicing is dependent on the final layout, access arrangements, local network capacity, and integration with programmed infrastructure upgrades.

T-115a and T-115b are classified as Category B2, reflecting that servicing is achievable but dependent on coordinated access design, site layout, staging, and developer-funded local upgrades where required.

T-115c is proposed as open space and does not generate additional servicing demand.

### **Water supply**

T-115a and T-115b are currently reticulated and serviced by the Richmond water supply network. Council has programmed several water supply upgrades relevant to this area, including trunk main upgrades along Lower Queen Street, capacity upgrades at the Richmond Water Treatment Plant, and further growth-related reticulation upgrades.

These upgrades are expected to improve overall network capacity and resilience.

Water supply is therefore available in principle. Local firefighting capacity and any upgrade requirements to meet proposed Firefighting Water Supplies Code of Practice rules will need to be confirmed. Any local network upgrades required to service development to meet firefighting requirements would be developer-funded in accordance with standard practice.

This supports a Category B1 classification for water supply, as servicing is available but subject to firefighting capacity confirmation and local upgrade requirements.

### **Wastewater servicing**

Existing wastewater infrastructure is expected to be adequate to service the proposed development at T-115a and T-115b in the short to medium term. However, the wider Berryfield and Richmond Central wastewater network is subject to future upgrades to maintain long-term capacity, and precise requirements will depend on detailed design, cumulative uptake, and the final development layout.

Development of T-115a, which is indicatively identified for approximately 90 dwellings, will require confirmation of local capacity at design stage. Developer-funded reticulation upgrades will be required where local capacity or layout constraints are identified.

Wastewater servicing is therefore available in principle, but dependent on capacity confirmation, staging, and any required developer-funded local works.

This supports a Category B2 classification for wastewater servicing, reflecting a credible servicing pathway subject to detailed design and delivery controls.

### **Stormwater servicing**

The stormwater network along Lower Queen Street has limited capacity and requires careful design integration. Existing infrastructure includes a 450 mm surface drainpipe between 215 and 421 Lower Queen Street and a 1200 mm pipe that collects frontage runoff and discharges via Estuary Place.

Stormwater from the proposed residential component of the development, including T-115a and T-115c, is expected to be directed to the Poutama Drain. Based on the assumptions

recorded in this assessment, the Poutama Drain has sufficient capacity to accommodate undetained runoff at a 0.55 runoff coefficient. The southern portion of the site is therefore considered serviced to both 10% AEP and 1% AEP standards, subject to those assumptions being confirmed through detailed design.

The commercial component, T-115b, has been assumed to drain to the Estuary Place system with a runoff coefficient of 0.8. If different development assumptions or discharge arrangements are proposed at consent stage, a comprehensive stormwater design assessment will be required.

Stormwater servicing is therefore achievable but design dependent. The servicing pathway relies on confirmation of runoff assumptions, discharge locations, and any required site-specific mitigation.

This supports a Category A classification for stormwater servicing.

## **Transport**

Transport is the principal servicing consideration for T-115a and T-115b.

The sites are well located for medium-density residential and commercial activity due to their proximity to the established commercial area and Lower Queen Street corridor. However, previous development in the area has occurred incrementally, resulting in multiple high-volume accesses along Lower Queen Street that function similarly to intersections.

The existing Berryfield Crossing access from Lower Queen Street operates as an intersection in practice. The separation between this access and the adjacent service station access is approximately 20 m, which does not meet the relevant separation expectations in the Nelson Tasman Land Development Manual or the Austroads guidance referenced in this assessment.

The proposed development would increase traffic pressure on the Berryfield Drive / Lower Queen Street intersection and on Lower Queen Street more generally. A project to upgrade Lower Queen Street, including the intersection, is included in the Long-Term Plan for 2029/30 and 2030/31.

The estimated yield for T-115a is approximately 90 residential dwellings. A cul-de-sac layout may be attractive due to the long and narrow site form, but a cul-de-sac serving this scale of development would not align with Nelson Tasman Land Development Manual expectations, which limit cul-de-sacs to a maximum of 25 dwellings.

- limit cul-de-sac length and dwelling numbers to an acceptable standard;
- minimise the likelihood of commercial vehicles using residential roads;
- provide safe access to Lower Queen Street;
- provide appropriate separation from the service station access; and
- integrate access arrangements with programmed Lower Queen Street upgrades.

Potential options include closing or relocating existing accesses, rationalising access arrangements with Berryfield Crossing, or providing a redesigned intersection arrangement that integrates with Estuary Place and Lower Queen Street. Any preferred option will need to be confirmed through detailed transport assessment, design, and engagement with relevant infrastructure providers.

Transport servicing is therefore achievable but dependent on a coordinated spatial layout, access rationalisation, intersection design, staging, and alignment with programmed transport upgrades.

This supports a Category B2 classification for transport.

### Overall Infrastructure Servicing Conclusion

T-115a and T-115b are appropriately classified as **Category B2**.

Infrastructure is generally available in the surrounding network, and servicing can be achieved through detailed design, local capacity confirmation, and developer-funded upgrades where required. However, the development pathway is strongly dependent on coordinated site layout, access design, staging, and integration with programmed Lower Queen Street improvements.

The principal unresolved matter is transport access configuration, including the relationship between the Berryfield Crossing access, the service station access, Lower Queen Street, and the proposed residential and commercial development areas. Stormwater and wastewater servicing are also dependent on confirmation of local capacity, runoff assumptions, and any required developer-led works.

On this basis, the sites have a credible infrastructure delivery pathway, provided development is supported by an Outline Spatial Plan, coordinated access arrangements, developer-funded local upgrades, and staging aligned with programmed infrastructure improvements.

T-115c is appropriately treated as infrastructure-neutral because it is proposed as open space and does not create additional servicing demand, and appropriately classified as **Category A**

## 3.6 Richmond South Light Industrial (FDS) (T-35a), (T-122a)

### AMP projects relating to site infrastructure capacity.

AMP 2024-2054					
Wastewater		Water		Stormwater	
<b>96081</b>	Yrs 6-10 \$30.3m	<b>86008</b> Mains Replacement Main Road Hope (Ranzau Rd to Three Brothers) (Completed)	Yrs 1-2 \$3.7m	<b>66001</b> Borck Creek widening - Reed Andrews to SH 6	Yrs 9+
		<b>86121</b> Richmond South Low-Level Reservoir	Yrs 4-9 \$5.9m	<b>66047</b> Borck Creek SH 60 bridge capacity upgrade	Yrs 3-5

		<b>86178</b> Richmond reticulation upgrades to service growth	Yrs 1-9 \$20m	<b>66057</b> Borck Creek Widening - SH 60 to Reed Andrews	Yrs 7-9
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Figure 6 T-35a (Light Industrial) T-122a (Mixed Business) - (Showing indicative road - Black line)

### 3.6.1 General description of changes proposed.

Site	Current Zone	Proposed Zone	Description
T-35a	Rural 1	Deferred Light industrial	<b>Estimated Yield:</b> 19ha
T-122a	Rural 1	Deferred Mixed business	<b>Estimated Yield:</b> 11ha

### 3.6.2 Infrastructure assessment – Category B2

The infrastructure assessment for T-35a and T-122a considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed deferred light industrial and mixed business zoning.

The sites are located within the Richmond South growth area. Servicing is dependent on the delivery of trunk wastewater upgrades, future stormwater works associated with Borck Creek, local water supply connections, and transport access arrangements involving Main Road Hope / State Highway 6.

Infrastructure solutions are identifiable. However, development cannot proceed on the assumption that all required infrastructure is currently available. Servicing is dependent on structure planning, staging, developer-funded local works, and alignment with programmed or future Council infrastructure.

On this basis, T-35a and T-122a are classified as Category B2, reflecting a credible but timing-dependent infrastructure delivery pathway.

### **Water supply**

Water supply infrastructure is partly in place, with further capacity improvements programmed through the Activity Management Plan. Relevant projects include the Richmond South Low-Level Reservoir and the Main Road Hope/State Highway 6 trunk main upgrades scheduled in Years 1–2, and further reticulation upgrades in Years 4–9.

These projects provide a pathway to support future development in the Richmond South area. However, local connections from the sites to the Council network will need to be designed, funded, and delivered by developers.

Water supply is therefore available in principle, but dependent on programmed upgrades, local connection design, and developer-funded reticulation works. This supports a Category B2 classification for water supply.

### **Wastewater servicing**

Wastewater servicing is the principal servicing constraint for both T-35a and T-122a.

There is currently no available capacity in the existing trunk wastewater main within the railway reserve until it connects with State Highway 60. If development occurs ahead of the programmed Wakefield–Richmond trunk main upgrade, discharge will need to occur at that downstream connection point.

For T-122a, wastewater infrastructure must be sized to account not only for the immediate site, but also for anticipated future flows from the upslope Richmond South growth area. An Outline Spatial Plan is therefore required to establish yield, land-use intensity, road layout, staging, and the servicing strategy before development proceeds.

Low Pressure Pumped Systems may reduce some local reticulation requirements, but they do not remove the need for downstream Council-funded upgrades to manage cumulative flows. Wastewater servicing will therefore require coordinated developer-led connections, staging, and integration with future trunk infrastructure.

Wastewater servicing is capable of being addressed, but only where development is sequenced with confirmed infrastructure delivery and supported by developer-funded local works. This supports a Category B2 classification for wastewater servicing.

### **Stormwater servicing**

The sites are not currently serviced to meet both 10% AEP and 1% AEP stormwater levels of service. Achieving the required standard relies on extensions and upgrades to the Borck

Creek stormwater network, including programmed projects that sit outside the current 10 year LTP horizon.

Where Council upgrades are not yet available, stormwater mitigation will need to be designed and funded by developers. This may include on-site detention, mitigated discharge, staging of impervious area, and temporary or interim servicing arrangements that align with future network upgrades.

For T-122a, runoff must be directed toward the planned Borck Creek extension. This adds complexity because of the intervening Main Road Hope / State Highway 6 corridor and the need to coordinate stormwater design with wider structure planning.

Stormwater servicing is therefore achievable but dependent on future network upgrades, site-specific mitigation, and/or developer-funded interim solutions. This supports a Category B2 classification for stormwater servicing.

### **Transport**

Transport access to T-35a and T-122a will require a new connection to Main Road Hope / State Highway 6, which will require engagement with NZTA. Potential solutions include a new roundabout at White Road, although the feasibility and timing of any access solution are influenced by the timing and outcome of the proposed Hope Bypass.

The future function of Main Road Hope, and the interface with State Highway 6, need to be resolved through wider Richmond South structure planning. Transport access should not be considered in isolation from the surrounding growth area, stormwater corridors, industrial traffic needs, and any future Hope Bypass alignment.

Transport servicing is therefore identifiable but subject to material uncertainty because it depends on external approvals, integrated structure planning, and staged infrastructure delivery. This supports a Category B2 classification overall, while recognising that the transport component may require a Category C treatment if access cannot be resolved through structure planning or agreement with NZTA.

### **Overall Infrastructure Servicing Conclusion**

T-35a and T-122a are appropriately classified as **Category B2**.

Infrastructure solutions are identifiable, but servicing is not currently available in full. Wastewater trunk capacity is the primary servicing dependency, stormwater infrastructure relies on future Borck Creek upgrades and developer-led interim measures, and transport access depends on integrated structure planning and NZTA engagement.

Development should therefore be deferred or staged until the required infrastructure pathway is confirmed. This includes confirmation of wastewater discharge arrangements, stormwater management and discharge routes, transport access to Main Road Hope / State Highway 6, and developer-funded local infrastructure.

On this basis, the sites have a credible infrastructure delivery pathway, provided rezoning is supported by structure planning, staging controls, developer-led servicing, alignment with funded works where those works are within the current LTP, and further confirmation of identified but not yet funded future infrastructure where works sit beyond the first 10 years.

### 3.7 Mytton Land, 28 Appleby Highway (T-232a/T-232b)



Figure 7 T-232a T-232b with approximate area impacted by Hope bypass designation (D127) (blue line area)

#### 3.7.1 General description of changes proposed.

Site	Current Zone	Proposed Zone	Description
T-232a	Light industrial	MDZ residential	<b>Not a FDS site</b> Part of this area is covered by D127 (Hope Bypass) designation as is illustrated by the red hatching in the figure above. <b>Estimated Yield: 30</b>
T-232b	Light industrial	MDZ residential	

#### 3.7.2 Infrastructure assessment – Category B2

The infrastructure assessment for T-232a and T-232b considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed rezoning from light industrial to medium density residential.

The sites are located within an established growth area adjoining the Borck Creek corridor and Appleby Highway. Servicing is available or identifiable across the core infrastructure networks, but development remains dependent on local reticulation design, wastewater servicing arrangements, stormwater management, transport layout, and coordination with NZTA in relation to State Highway 60, the Hope Bypass designation, and the Great Taste Trail.

On this basis, T-232a and T-232b are classified as Category B2, reflecting a credible infrastructure delivery pathway subject to detailed design, developer-funded local works, and coordination with wider transport and servicing requirements.

## **Water Supply**

Trunk water mains have been installed along the Borck Creek corridor and form part of the existing reticulated water supply network. Future capacity and resilience are supported by projects included in Council's capital works programme, including the Richmond South Low-Level Reservoir and associated reticulation upgrades (Projects 86121 and 86072), and the Richmond Water Treatment Plant capacity upgrade (Project 86047), all scheduled for completion within Years 1–4.

Further long-term resilience is expected to be supported by the Richmond West Loop Main project along McShane Road (Project 86204, Years 2034–2044), which is identified for delivery beyond the first 10 years and should be treated as longer-term planned infrastructure rather than confirmed current LTP funding.

Water supply does not represent a defining servicing constraint for T-232a or T-232b. Local reticulation extensions or any required upsizing to support subdivision would be developer-funded and confirmed through detailed design and standard consenting processes.

Water supply servicing is therefore consistent with Category B2, as network servicing is available in principle and the remaining requirements relate to local design, connection, and developer-funded works.

## **Wastewater Servicing**

Wastewater servicing is available in principle through connection to the existing pressure wastewater network, which is the preferred servicing solution for these sites. Gravity servicing may be technically possible but is a secondary option because of downstream capacity constraints and the wider performance of the Wakefield–Richmond trunk network.

Servicing is therefore dependent on the selected connection method, confirmation of available capacity, and coordination with wider wastewater infrastructure sequencing. If development proceeds before relevant trunk network upgrades are completed, staging or developer-funded mitigation may be required.

Wastewater servicing is capable of being addressed through the pressure network and standard development processes, provided development is sequenced with confirmed capacity and any required local works. This supports a Category B2 classification for wastewater servicing.

## **Stormwater Servicing**

The site is currently able to discharge undetained flows to Borck Creek and is serviced for both 10% AEP and 1% AEP discharge requirements.

However, the site is modelled to remain vulnerable during 1% AEP events originating from the south, until programmed upstream mitigation projects are completed. Interim stormwater responses may therefore be required including flow management and elevated finished floor levels until completion of future Council upgrades.

Stormwater servicing is therefore consistent with Category A, reflecting existing servicing with constraints that can be addressed through normal consenting processes.

## **Transport**

The proposed rezoning from light industrial to medium density residential is expected to reduce heavy vehicle movements through the adjacent residential area compared with the

existing light industrial zoning. However, transport servicing remains dependent on-site layout, connectivity, access design, and coordination with wider transport outcomes.

Pedestrian and cycle connections will need to be provided between the development, Borck Creek path, and the Great Taste Trail. If the Hope Bypass proceeds, the Great Taste Trail may require realignment, and coordination with NZTA will be required to confirm any future alignment and crossing arrangements.

NZTA does not support direct vehicular access to State Highway 60. Any new vehicular connection to State Highway 60 would likely increase traffic volumes on lower-capacity residential roads within Berryfield and would be inconsistent with the intended local network function.

The proposed layout may create a cul-de-sac of approximately 250 metres serving around 40 lots. This exceeds the Nelson Tasman Land Development Manual expectations for cul-de-sac length and dwelling numbers. Alternative access, connectivity, or layout responses will therefore need to be considered through subdivision design.

Noise effects from the future Hope Bypass may also need to be addressed for dwellings located adjacent to the proposed alignment.

Transport servicing is therefore consistent with Category A, provided development is supported by appropriate layout design, pedestrian and cycle connections, avoidance of direct State Highway 60 access, coordination with NZTA, and any required noise or amenity mitigation.

### **Transport and access requirements**

Development should demonstrate how the following matters will be addressed through subdivision design and consenting:

- walking and cycling connections between the site, Borck Creek path, and the Great Taste Trail;
- coordination with NZTA on any future Great Taste Trail alignment and crossing arrangements associated with the Hope Bypass;
- consideration of vehicular and pedestrian access to Eton Street, where practicable and subject to land ownership constraints;
- avoidance of any new direct vehicular connection to State Highway 60; and
- suitable noise mitigation for dwellings adjacent to the future Hope Bypass alignment.

### **Overall Infrastructure Servicing Conclusion**

T-232a and T-232b are appropriately classified as **Category B2**.

Infrastructure servicing is available or identifiable across the main networks. Water supply is available in principle and supported by programmed upgrades. Wastewater servicing is capable of being addressed through the pressure network, subject to capacity confirmation and sequencing with wider trunk infrastructure. Stormwater can be directed to Borck Creek, with interim design responses required until upstream mitigation works are completed.

The main unresolved matters relate to transport layout, local connectivity, the Hope Bypass designation, Great Taste Trail alignment, and coordination with NZTA. These matters do not

indicate that servicing is unachievable, but they require resolution through detailed design, subdivision layout, consent conditions, and developer-funded works.

On this basis, the sites have a credible infrastructure delivery pathway, subject to confirmed servicing capacity, appropriate site layout, transport connectivity, and coordination with wider infrastructure delivery.

### 3.8 Gladstone Road frontage, Richmond (T-117 and T-178a)



Figure 8 T-117 and T-178a

#### 3.8.1 General description of changes proposed.

Site	Current Zone	Proposed Zone	Description
T-117	Residential zone	Mixed Business	<b>Estimated yield 2</b> business lots.
T-178a	Residential zone	Medium Density Residential Zone <i>Richmond High Density Precinct</i>	<b>Estimated Yield:42</b>

#### 3.8.2 Infrastructure assessment – Category C

The infrastructure assessment for T-117 and T-178a considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed zoning changes.

The two sites have different servicing characteristics. T-117 is proposed for mixed business activity with an estimated yield of two business lots. Three waters servicing is available in principle, and no material three waters infrastructure delivery dependency has been identified. However, transport access and corridor-function matters require separate consideration.

T-178a is proposed for medium density residential development with an indicative yield of 42 dwellings. While water and stormwater servicing are available in principle, wastewater servicing depends on the delivery of future trunk infrastructure. Transport outcomes are also influenced by State Highway 6 / Gladstone Road performance and wider NZTA-related planning. T-178a is therefore classified as Category C, because the required delivery pathway is not yet sufficiently defined or reliable at the time of assessment.

### **Water Supply**

Both sites are connected to the Richmond water supply network. Water supply capacity is available in principle and is supported by the programmed Gladstone Road water main upgrade, which is scheduled within Years 1–4 of Council’s capital works programme.

Water supply does not represent a controlling servicing constraint for either T-117 or T-178a. Any local connection requirements, minor upsizing, or on-site design matters particularly to meet firefighting rules for high density developments can be addressed through detailed design and consenting processes.

Water supply servicing supports Category A for T-117 and does not drive the Category C classification for T-178a.

### **Wastewater Servicing**

Wastewater servicing is available for T-117 and is sufficient for the proposed two business lot yield. Servicing is already in place, and no material wastewater delivery dependency has been identified for that site.

For T-178a, wastewater servicing is dependent on completion of the Wakefield–Richmond trunk main project, including the Wakefield to Beach Road connection. The timing of Stage C of this trunk infrastructure project needs to be confirmed before sufficient capacity can be relied on to support the proposed medium density residential development.

While a servicing solution is identifiable for T-178a wastewater capacity is linked to the trunk main project. Development ahead of the relevant trunk infrastructure could contribute to cumulative downstream capacity constraints and network performance issues.

Wastewater servicing therefore supports Category A for T-117 and is the primary reason T-178a is classified as Category C.

### **Stormwater servicing T-117 and T-178a**

Both sites are currently serviced for stormwater to the 10% AEP standard. Flows are able to be either detained before discharge to Gladstone Road or conveyed across the adjacent sports field toward the Poutama Drain.

During 1% AEP events, flood levels are not expected to result in significant depth on the sites; however, flood extents may affect the roadway. This may require finished floor levels, access design, and freeboard requirements to be confirmed through detailed design,

including consideration of the Building Code's 500 mm freeboard requirement where applicable.

Stormwater servicing can be addressed through detailed design, finished floor level controls, detention where required, and confirmation of discharge arrangements.

Stormwater servicing supports Category A for T-117 and T-178a.

## **Transport**

Transport is the principal unresolved infrastructure matter for the Gladstone Road frontage sites.

NZTA has expressed concern about more intensive residential zoning adjoining State Highway 6 / Gladstone Road because the future function of this corridor has not yet been confirmed. NZTA's position is that the proposed medium density residential zoning adjoining State Highway 6 should be removed, due to uncertainty about the future role of Gladstone Road. NZTA has also advised that, while the scope and timing of the Hope Bypass remain undetermined, it does not support intensification of residential properties with direct access from Gladstone Road, or the creation of new accesses.

If the Hope Bypass proceeds, Gladstone Road may transition toward a more local road function. However, its future traffic volume, design, access role, and relationship with the Great Taste Trail remain unresolved. If this transition occurs, special planning controls are likely to be required to manage access, frontage activity, and the safe and efficient operation of both the road corridor and any associated cycle trail function.

T-117 is proposed for Mixed Business use. This activity is likely to generate more vehicle movements than the existing residential properties and more than properties of a comparable size under the proposed Medium Density Residential Zone. Although T-117 has previously been identified as Category A from a three waters perspective, the transport implications require separate consideration because of the site's frontage to Gladstone Road and the uncertainty over future corridor function.

Potential responses to the Gladstone Road access issue include preventing additional vehicle accesses from Gladstone Road, which would increase the number of properties using existing accesses, or providing rear access to intensified properties through Jubilee Park. The latter option would require use of third-party or public open space land, likely require additional parking provision within Jubilee Park, and would depend on ownership, maintenance, and access agreements. It would also reduce the usable area of the park.

These options introduce additional complexity and are not yet defined, secured, or confirmed as deliverable. Transport servicing for the Gladstone Road frontage sites is therefore dependent on resolution of Gladstone Road's future function, confirmation of access arrangements, any required planning controls, and coordination with NZTA and any future Hope Bypass / Great Taste Trail outcomes.

On this basis, transport servicing supports a Category C classification for the residential frontage component of T-178a. For T-117, three waters servicing supports Category A, but the unresolved Gladstone Road access and corridor-function matters mean the overall classification should either be qualified or reconsidered if transport is treated as determinative.

## Overall Infrastructure Classification T-178a

T-117 and T-178a should be considered separately for infrastructure categorisation.

T-178a is appropriately classified as **Category C**. Although water and stormwater servicing are available or manageable in principle, wastewater servicing depends on future trunk infrastructure, and the transport pathway is not yet sufficiently defined. NZTA does not currently support residential intensification with direct access from Gladstone Road while the scope and timing of the Hope Bypass, and the future function of Gladstone Road, remain unresolved.

T-117 has previously been identified as **Category A** on the basis that three waters servicing is available, and the proposed yield is limited to two business lots. However, Mixed Business activity is likely to generate more vehicle movements than existing residential use or comparable medium density residential development. The site's frontage to Gladstone Road means its final categorisation should also account for transport access, future corridor function, and any NZTA requirements.

Potential mitigation options for Gladstone Road, including prohibiting additional accesses or providing rear access through Jubilee Park, are not yet defined, secured, or confirmed as deliverable. These options rely on access management decisions, potential use of public open space or third-party land, ownership and maintenance arrangements, and future corridor planning.

On this basis, T-178a remains **Category C**. T-117 should either remain **Category A for three waters only**, with a separate transport qualification, or be reconsidered as **Category C overall** if the unresolved Gladstone Road access and corridor function matters are treated as determinative for infrastructure categorisation.

### 3.9 Champion Road Richmond (T-223a, T-223b)



Figure 9 T-223a, T-223b (Indicative Road shown as Black line)

#### 3.9.1 General description of changes proposed.

Site	Current Zone	Proposed Zone	Description
T-223a	Rural Residential Serviced	Rural 2	n/a
T-223b	Rural Residential Serviced	Residential.	<b>Estimated Yield: 11</b>

#### 3.9.2 Infrastructure assessment – T-223a (Category) / T-223b (Category B1)

The infrastructure assessment for T-223a and T-223b considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed zoning changes.

The two areas have different servicing requirements. T-223a is proposed as Rural 2 unserviced land. It does not require reticulated three waters infrastructure and is therefore classified as Category A from a servicing perspective, subject to normal access, transport, and onsite servicing requirements.

T-223b is proposed for residential zoning. Servicing is available in principle through existing networks, but development capacity is limited by local wastewater constraints, water supply and fire-fighting flow requirements, stormwater design requirements, and site access considerations. On this basis, T-223b is classified as Category B1, reflecting a credible servicing pathway subject to low yield, detailed design, and servicing confirmation.

### **Water Supply**

Water supply servicing is available in the surrounding Richmond network. However, available local capacity and fire-fighting flow need to be confirmed before residential development proceeds.

Water supply and fire-fighting capacity are likely to constrain the scale of development able to be supported without local upgrades. Any subdivision or residential development will need to confirm pressure, flow, and connection requirements through detailed design and standard consenting processes.

Apart from the Richmond Reticulation Upgrades to service growth (Project 86178), scheduled for Years 4–9 of Council's programme, there are no water infrastructure projects currently planned that directly support this proposal.

T-223b is currently serviced by a single 40 mm rider main connected to Richmond's low-pressure water supply.

Water supply servicing supports Category B1 for T-223b, provided development remains at a scale that can be supported by confirmed local capacity or by developer-funded upgrades where required.

T-223a does not rely on reticulated water supply for the proposed Rural 2 unserviced zoning.

### **Wastewater Servicing**

T-223a does not require connection to the reticulated wastewater network because it is proposed as Rural 2 unserviced land.

For T-223b, wastewater servicing is available in principle but constrained by local capacity. Development is likely to be supportable only at low yield unless further upgrades or alternative servicing arrangements are confirmed.

Any subdivision or development will need to confirm available wastewater capacity, downstream connection requirements, and any developer-funded local works. Higher residential yield remains uncertain without capacity confirmation.

Wastewater servicing supports Category B1 for T-223b, reflecting a servicing pathway dependent on confirmed low yield, local capacity checks, and any required developer-funded upgrades.

### **Stormwater Servicing**

T-223a does not require reticulated stormwater infrastructure for the proposed Rural 2 unserviced zoning, although any future development will still need to manage stormwater effects onsite in accordance with normal consent requirements.

For T-223b, stormwater servicing will need to be addressed through site-specific design. This may include detention, flow management, overland flow path protection, and

confirmation of discharge arrangements. Development should demonstrate that stormwater runoff can be managed without increasing downstream effects.

Stormwater servicing supports Category A for T-223b, provided appropriate stormwater design and mitigation are confirmed through subdivision or land-use consenting.

### **Transport**

The site contains several existing dwellings, meaning any net increase in residential yield is expected to be relatively modest. However, access to the Rural 2 zoned land within T-223a will require careful consideration. A standard residential lane or right-of-way may not be appropriate for servicing rural activities, particularly given the constraints of the local topography. While the terrain may limit rural use, it does not preclude it entirely. There is also potential for adverse health effects on future dwellings located near Eyles Road due to dust generated from the unsealed surface.

These effects are manageable through design, development controls, and limiting development intensity consistent with the assumed yield.

Transport servicing supports Category A from a transport perspective subject to access design, low-yield development, and any required frontage or local transport improvement

### **Overall Infrastructure servicing Conclusion**

T-223a and T-223b should be categorised separately.

T-223a is appropriately classified as **Category A** because the proposed Rural 2 unserviced zoning does not require Council reticulated water, wastewater, or stormwater infrastructure. Any future development would still need to address onsite servicing and transport access through normal consent processes.

T-223b is appropriately classified as **Category B1**. Residential servicing is available in principle, but only within confirmed local capacity limits. The site is dependent on low-yield development, confirmation of wastewater capacity, confirmation of water supply and fire-fighting flow, site-specific stormwater design, and safe access from Champion Road.

On this basis, T-223b has a credible infrastructure delivery pathway, provided development remains within confirmed servicing limits and is supported by detailed design, servicing confirmation, and any required developer-funded local works.

### 3.10 Eyles Road, Richmond - unserviced-only (T-114a)



Figure 9 T-114a Eyles Road rural residential unserviced



Figure 9a Rural residential area zoned within PC79 circled in Green  
(Showing indicative roads - indicative walkway red dashed line)

#### 3.10.1 General description of changes proposed.

Site	Current Zone	Proposed Zone	Description
T-114a	Rural 2	Rural residential unserviced	T-114a - Self serviced for 3 waters; 25 dwellings.

### 3.10.2 Infrastructure assessment (Category 'B2')

The infrastructure assessment for T-114a considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed rural residential unserviced zoning at Eyles Road.

The proposed zoning does not rely on Council reticulated water, wastewater, or stormwater infrastructure. Servicing is expected to be provided through onsite systems and site-specific stormwater management, subject to normal subdivision and land-use consent requirements.

The key infrastructure considerations are therefore transport access, road geometry, stormwater management, and confirmation that onsite servicing can be achieved without creating downstream effects or reliance on future Council reticulation.

On this basis, T-114a is classified as Category B1, reflecting that the site does not require reticulated network upgrades, but development remains dependent on site-specific design, access arrangements, stormwater management, and onsite servicing confirmation.

#### **Water Supply**

The proposed rural residential unserviced zoning does not require connection to Council's reticulated water supply network.

Future development will need to demonstrate how potable and firefighting water supply requirements can be met through onsite or private arrangements. Any onsite water supply solution will need to be confirmed through the relevant subdivision, building, and consenting processes. Water supply does not require Council network upgrades for this zoning.

This supports a Category A classification for water supply, as servicing is not dependent on Council reticulation.

#### **Wastewater Servicing**

The proposed zoning does not rely on Council's reticulated wastewater network.

Wastewater servicing would need to be provided through onsite wastewater systems designed to meet applicable technical and environmental requirements. The suitability of onsite wastewater treatment and disposal will depend on lot size, soil conditions, groundwater conditions, landform, separation distances, and cumulative effects.

Wastewater servicing supports a Category A classification, reflecting that Council reticulation is not required but onsite servicing suitability must be confirmed at subdivision or development stage.

#### **Stormwater Servicing**

Stormwater servicing is not currently available for any of these areas. They sit at the head of several catchments and final drainage arrangements are not clear. There is a particular concern regarding additional flows to the Easby Park inlet that is prone to blockage resulting in multiple flooded properties downstream. Hence a site-specific planning requirement requiring that no greater rate or volume of runoff shall be allowed towards Reservoir Creek (i.e. hydraulic neutrality) is recommended. Overall management of stormwater runoff will

need to be addressed as part of a comprehensive site design process undertaken by the developer. Stormwater infrastructure to be investigated and resolved by the developer through consenting processes.

Stormwater servicing supports a Category B2 classification, as the servicing pathway is dependent on site-specific design and delivery without a confirmed developer agreement.

## **Transport**

Transport is the principal infrastructure consideration for T-114a. Access to T-114a will be via the indicative road layout shown in figure 9a across an area that has been zoned Rural Residential – Serviced in Plan Change 79. This will provide opportunity for T-114a to have access from Champion Road and an improved roading connectivity via indicative roads to Highland Drive.

The area is comparatively close to a bus route, schools, and the commercial hub at the Salisbury Road, Champion Road intersection. Walking and cycling are likely to be attractive modes for trips to these locations. However, this area is in steep terrain, and road and footpath gradients are likely to be steeper than the desirable footpath gradient of 5%. The NTLDM acknowledges that achieving these gradients may not be practical in Hillside Environments and does not require maximum footpath gradients in these environments.

The walking and cycling mode share is therefore likely to be less than would normally be expected in a flatter environment this close to facilities.

The footpath on Champion Road finishes, and the carriageway narrows to approximately 4.5 to 5.0m wide, at number 144. The seal width on the lower section of Eyles Road (up to Silvan Place) varies from 5 to 6m.

This does not meet the NTLDM requirements for a Local Road in a Rural Lifestyle zone (6m wide sealed traffic lanes and a 2.5m wide shared path).

It is recommended that the developer upgrades these roads to NTLDM standards prior to development.

Roads will be developed in steep terrain in a Slope Instability Risk Area and will cross two Fault Rupture Risk Areas. The roads within and accessing the development area are likely to be vulnerable to slips and damage from both severe weather and earthquake and will require careful geotechnical design. Services within the roads will also be vulnerable should the roads be damaged.

It is proposed to add an indicative road through the Rural Residential – Serviced area (fig 9b), from the end of Eyles Road to the edge of T-114a. This will result in a long cul-de-sac. The NTLDM requires a maximum length of 400m with a maximum of 40 dwellings for cul-de-sacs in “Hillside Environments”. An indicative road from Highland Drive to the boundary of the recently zoned Rural Residential - Serviced area is included in the current TRMP. This will provide an alternative link to Hill Street or Champion Road via Park Drive and Angelus Avenue. Until this is constructed the total cul-de-sac length is likely to be more than 1km.

The indicative road linking Highland Drive to the Rural Residential – Serviced area is expected to be constructed as part of residential development of the Highland Drive property. This development area also has steep topography and crosses the fault rupture risk areas.

## Recommendations:

- That all existing roads beyond the end of the existing footpath on Champion Road be upgraded at the developer’s cost to meet the requirements of the NTLDM for a Local Road in a Rural Lifestyle zone (including a shared path).
- That new subdivision roads, and upgrades to existing roads be designed in accordance with Clause 4.7.3 of the 2020 NTLDM.

Transport servicing supports a Category B2 classification, reflecting that development may be feasible where access and local road requirements are developer-led and confirmed through detailed design and consenting.

## Overall Infrastructure servicing Conclusion

T-114a is appropriately classified as **Category B2**.

The proposed rural residential unserviced zoning does not require Council reticulated water, wastewater, or stormwater infrastructure. However, development remains dependent on confirmation that onsite stormwater management, and transport access can be provided safely and effectively.

On this basis, T-114a can be supported as rural residential unserviced zoning, subject to normal subdivision, engineering, and consenting controls.

## 4 Wakefield Infrastructure Assessments

AMP 2024-2054 Capital programme (Wakefield)							
Wastewater		Water		Stormwater		Transport	
96053 Part A - Brightwater main WWPS upgrade and pressure main upgrade from Brightwater pump station to Burkes Bank	Yrs 4-6 \$8.39m	86123 Waimea water strategy – Brightwater & Wakefield water reticulation \$29.1m	Yrs 1-10	66101 Wakefield Church Land Capacity Upgrade for Development	Yr 2 \$120K	0556620149 Bird Lane Improvements, including minor improvements to SH60 intersection	Yrs 8/9 \$3m
96080 Part B - New pump station at Wakefield and increase capacity of mains from Wakefield to Burkes Bank	Yrs 2-6 \$21.5m			66102 Wakefield capacity upgrades for intensification (FDS T-029)	Yrs 4-5 \$850K		
96081 Part C – new pressure mains from Burkes Bank to Beach Road Pump Station and connecting in	Yrs 6-10 \$30.3m			66103 Edward Street Development Area Stormwater Upgrade (FDS T-107)	Yr 3 \$268K		

#### 4.1 Wakefield Central infill intensification (T-29a, T-29c, T-30)

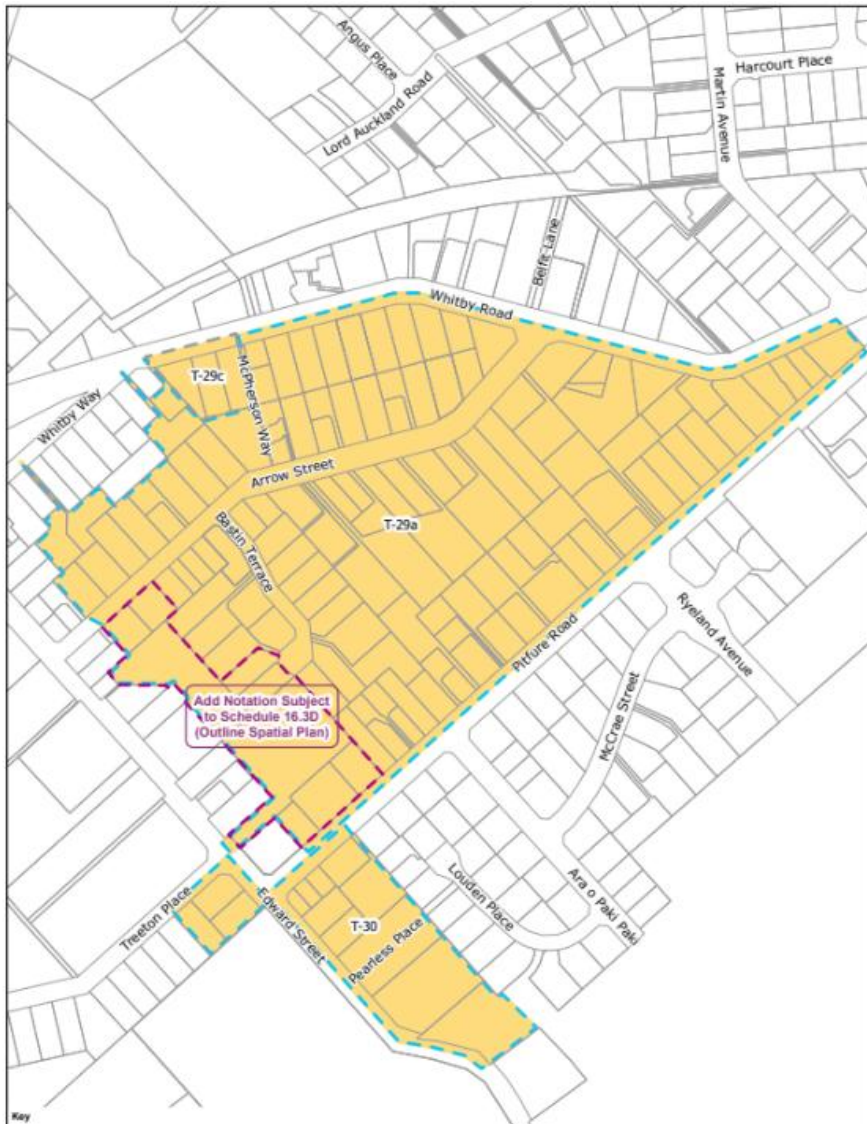


Figure 10 T-29a, T-29c, T-30 (includes site on south side of Edward St)

##### 4.1.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-29a	Mostly residential (minimum lot size 450m <sup>2</sup> ). Some light industrial (500m <sup>2</sup> ),	Medium Density Residential	<b>Estimated Yield:</b> 179 Lots T-30 includes small site south side of Edwards St
T-29c		Medium Density Residential	
T-30		Medium Density Residential	

	commercial (min lot size 200m <sup>2</sup> )		
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The Wakefield assessments consider whether the proposed PC81 rezoning areas can be serviced by existing, funded, programmed, or otherwise credible infrastructure delivery pathways. The assessment distinguishes between infrastructure that is available now, infrastructure identified in the current Long-Term Plan, and infrastructure that remains subject to future investigation, detailed design, external approvals, or developer-led delivery.

Wakefield has established infrastructure networks, but the ability to support additional medium density residential, light industrial, and related growth depends on the timing and scope of water, wastewater, stormwater, and transport upgrades. Where works are identified beyond the current 10-year Long-Term Plan, they are treated as future identified infrastructure rather than confirmed funded delivery.

#### 4.1.2 Infrastructure assessment – Category B2

The infrastructure assessment for T-29a, T-29c, and T-30 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support Wakefield Central infill intensification.

The sites are within the existing Wakefield urban area and are generally proximate to established infrastructure networks. However, additional intensification is dependent on confirmation of water supply capacity, wastewater network performance, stormwater management, and transport upgrades or access improvements.

Infrastructure solutions are available or identifiable, but servicing should not be treated as unconditional. Development will need to align with funded and programmed upgrades, local capacity confirmation, site-specific design, and any required developer-funded works.

On this basis, T-29a, T-29c, and T-30 are classified as **Category B2**, reflecting a credible infrastructure delivery pathway that remains subject to sequencing, capacity confirmation, and standard development controls.

#### Water Supply

Water supply is the primary servicing consideration for Wakefield Central intensification.

Existing water supply infrastructure is available within the Wakefield network. Additional capacity is required to support future growth and intensification. Relevant upgrades are identified in Council’s capital works programme, including the Brightwater–Wakefield trunk water main and associated treatment capacity project (Project 86123), which is identified within Years 1–10 of the current Long-Term Plan. Renewal and replacement of ageing asbestos-cement pipelines may also be required to support growth-related demand.

Until the relevant upgrades and local capacity checks are completed, the ability of the network to support additional medium density development should be confirmed through detailed design, capacity assessment, and standard consenting processes. Particular attention will be required for pressure, flow, firefighting supply, and cumulative demand from wider Wakefield growth.

## Wastewater Servicing

Wastewater servicing is available in principle through the existing Wakefield wastewater network. There are no wastewater upgrades identified specifically for Wakefield Central infill intensification. Servicing will rely on the wider programmed Wakefield–Richmond wastewater upgrades and on confirmation of local network performance at the time of development.

If development proceeds ahead of required wastewater upgrades or if cumulative uptake exceeds assumptions, local or downstream capacity constraints may affect the timing, scale, or sequencing of development. Any developer-funded local reticulation or connection works would need to be confirmed through subdivision and consenting processes.

However, further development will increase cumulative flows and will need to be assessed against local network capacity and downstream servicing requirements.

The intensification yield should not be assumed to be accommodated without confirmation of available wastewater capacity. Local reticulation upgrades, connection works, or staging may be required depending on the location, scale, and timing of development.

Wastewater servicing is therefore capable of supporting Wakefield Central intensification where capacity is confirmed, and any required local works are provided through subdivision or land-use consenting.

This supports a Category B2 classification for wastewater servicing.

## Stormwater Servicing

The area is not currently serviced to the 10% AEP standard. However, the LTP includes pipe upgrades in Years 2–5 to support infill housing (AMP IDs 66101, 66102, 66103). Some locations experience problematic 1% AEP flooding or ponding, which may constrain development potential. Catchment Management Plan work is intended to investigate mitigation options for these issues.

Some small areas are likely to be difficult to develop in the short term due to predicted flooding. For example, flooding at the rear of 19 Arrow Street has been observed during recent events and is consistent with the modelling. This is illustrated in the figure below, which shows the combined depth and overland flow path mapping.



Figure 11 OLFP and 1% AEP Flood mapping

Stormwater management for Wakefield Central intensification will need to be addressed through site-specific design.

The existing urban area contains localised drainage constraints and stormwater performance will depend on site levels, discharge points, overland flow paths, downstream, and the extent of additional impervious area. Intensification may increase runoff unless mitigated through design measures.

Development will need to demonstrate that stormwater can be managed without increasing downstream flooding, nuisance effects, or adverse impacts on existing drainage systems. Design responses may include detention, flow attenuation, soakage where suitable, overland flow path protection, finished floor level controls, and discharge management.

Stormwater servicing is therefore achievable only where site-specific design and consenting controls confirm an acceptable discharge and mitigation approach. This supports a Category B2 classification for stormwater servicing because delivery depends on site-specific design, mitigation, and developer-led works, with no confirmed developer agreement currently in place.

## **Transport**

Intensification of an existing urban area which includes both business and residential areas results in more people living closer to facilities and activities, meaning that trips are shorter, and easier to walk or cycle. Intensification is therefore likely to result in less transport impacts than greenfield developments further away from destinations. This site is close to the Wakefield village centre.

The operational performance of both the Edward Street / Pigeon Valley Road / SH6 and the Arrow Street / SH6 intersections will need to be evaluated in the context of increased development. The Pitfure Road / SH6 intersection is also likely to require upgrades, particularly in response to recent plan change areas (Plan Change 76 – Growth Wakefield). These are not included in the LTP. Coordination with NZTA will be necessary to address these matters.

Transport servicing for Wakefield Central intensification is dependent on local access design, road network performance, walking and cycling connectivity, and the timing of any programmed transport improvements.

Infill intensification within Wakefield Central is generally well located relative to local services and existing urban streets. However, increased dwelling yield may place additional pressure on local roads, intersections, parking, and pedestrian and cycle connections. Some supporting transport improvements are not fully programmed or require further design confirmation.

Development will need to confirm safe and efficient access, appropriate frontage treatments, sight distances, walking and cycling connections, and any local road upgrades or intersection improvements required to support the proposed scale of development.

Transport servicing is therefore achievable, but dependent on subdivision design, local access arrangements, any required transport upgrades, and sequencing with wider Wakefield infrastructure planning.

Transport servicing supports a Category B2 classification because the sites are well located for local access, but development remains dependent on access design, local network

performance, NZTA coordination where required, and the timing or delivery of supporting transport improvements.

### Overall Infrastructure servicing Conclusion

T-29a, T-29c, and T-30 are appropriately classified as **Category B2**.

The sites are located within the existing Wakefield urban area and infrastructure servicing is available or identifiable in principle. However, intensification is dependent on confirmation of water supply capacity, local wastewater capacity, site-specific stormwater management, and transport access or network improvements.

The key infrastructure dependency is water supply, with additional confirmation required for pressure, flow, fire-fighting capacity, and cumulative demand. Wastewater, stormwater, and transport matters are capable of being addressed through detailed design, staging, consenting controls, and developer-funded local works where required.

On this basis, the sites have a credible infrastructure delivery pathway, provided development is sequenced with programmed infrastructure upgrades and supported by servicing confirmation at subdivision or land-use consent stage.

## 4.2 412 Main Road / Bird Lane, Wakefield (T-108)



Figure 12 T-108 (Showing indicative road -Black line)

### 4.2.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-108	Rural 1	Light Industrial	Minimum net area 500m <sup>2</sup> . FDS assumed lot sizes of 2000m <sup>2</sup> . <b>Estimated Yield: 51 lots</b>

#### 4.2.2 Infrastructure assessment (Category 'B2')

The infrastructure assessment for T-108 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed light industrial zoning at 412 Main Road / Bird Lane, Wakefield.

The site is located on the edge of the existing Wakefield urban area. Servicing is available or identifiable in principle, but development is dependent on trunk water and wastewater upgrades, site-specific stormwater design, transport access arrangements, and developer-funded local infrastructure.

On this basis, T-108 is classified as Category B2, reflecting a credible infrastructure delivery pathway that is dependent on confirmed staging, infrastructure delivery, and developer-led servicing.

##### **Water Supply**

Water supply servicing is available in principle through the Wakefield water supply network. However, additional capacity and resilience are required to support growth and future industrial activity.

Relevant upgrades are identified in Council's capital works programme, including upgrading the trunk water main from Brightwater to Wakefield, with water treated and supplied from the new Brightwater Treatment Plant (Project 86123), scheduled within Years 4–8. The ability of the network to support industrial development will need to be confirmed through detailed design, pressure and flow assessment, and any fire-fighting supply requirements associated with the final land use.

Water supply servicing is therefore achievable, but dependent on programmed upgrades, local capacity confirmation, fire-fighting requirements, and any developer-funded connection or reticulation works.

This supports a Category B2 classification for water supply.

##### **Wastewater Servicing**

Wastewater servicing is available in principle but depends on capacity within the Wakefield wastewater network and the timing of trunk upgrades required to support future growth.

Industrial development may generate wastewater flows that differ from residential assumptions, depending on the nature of activities established on the site. Development should therefore not proceed on the assumption that existing capacity is sufficient for all future industrial uses.

Wastewater servicing will need to be confirmed through detailed design, assessment of likely wastewater flows and trade waste requirements, confirmation of downstream capacity, and any required developer-funded local reticulation works.

This supports a **Category B2** classification for wastewater servicing.

##### **Stormwater Servicing**

There is currently no stormwater infrastructure servicing the site to either the 10% AEP or 1% AEP standard. Modelling indicates significant depths during major events along Bird

Lane, requiring site-specific stormwater solutions to manage onsite runoff and upstream flows. Stormwater solutions are technically achievable but would be developer-led and would require careful design to avoid onsite and offsite effects. Stormwater servicing for T-108 will need to be addressed through site-specific design.



*Figure 14 Bird Lane 1% AEP flood map*

The proposed light industrial zoning is likely to increase impervious area and generate runoff from accessways, yards, roofs, and parking or loading areas. Stormwater management will therefore need to address both quantity and quality before discharge to any receiving network or environment.

Stormwater solutions are expected to be developer-led. Design responses may include detention, treatment, flow attenuation, overland flow path management, erosion control, and confirmation of lawful discharge arrangements.

Stormwater servicing is therefore achievable where detailed design demonstrates that runoff can be managed without increasing downstream flooding, nuisance, erosion, or water quality effects.

This supports a Category B2 classification for stormwater servicing because detailed modelling, final design, discharge arrangements, and confirmed developer-led delivery mechanisms are not yet in place.

### **Transport**

Transport is a key servicing consideration for T-108. The proposed light industrial zoning will require safe and efficient access from Main Road / Bird Lane, including consideration of

sight distances, access spacing, frontage treatments, turning movements, heavy vehicle access, and any effects on the local road network.

An upgrade to Bird Lane and the Bird Lane / Bird Road / SH6 intersection is planned and included in LTP (2032/33). A more extensive upgrade, possibly including a roundabout is likely to be necessary to accommodate the additional traffic using the intersection from the T-194 residential zones, discussed below.

Walking and cycling connections are required, probably along SH6, subject to confirmation with NZTA. Alternatively, pedestrian and cycle routes would follow a longer, less direct path via the indicative road to Marchioness Way. It is recommended to provide dedicated pedestrian and cycle access to this indicative road to ensure connectivity.

Meeting the NTLDM standard of a maximum cul-de-sac length of 150 meters serving no more than 25 dwellings in residential zones (and 120 meters in commercial or industrial zones) will be challenging. The use of Crescents in T-108 and the indicative crescent in existing industrial zones to the southwest is suggested to address this.

NZTA has suggested extending the urban area and speed limit on SH60 up to the Bird Road / Bird Lane intersection.

### **Recommendation**

Defer development until upgrades to Bird Lane and the Bird Lane / Bird Road / SH6 intersection are completed. The Bird Lane upgrade, including partial intersection improvements, is included in the LTP.

Transport constraints are therefore defined by sequencing and external delivery dependency, rather than by infeasibility.

The site's final layout will need to demonstrate that industrial traffic can be accommodated without relying on unsuitable local road movements or creating unresolved access conflicts. Walking and cycling connections, internal circulation, parking, loading, and service vehicle manoeuvring will also need to be addressed through detailed design.

Transport servicing is therefore achievable, but dependent on access design, local road interface, heavy vehicle movement requirements, and any developer-funded frontage or intersection improvements.

This supports a Category B2 classification for transport.

### **Overall Infrastructure Servicing Conclusion**

T108 is appropriately classified as Category B2. The 412 Main Road / Bird Lane site presents dependencies on critical wastewater trunk infrastructure upgrades, water supply capacity confirmation, and transport access and safety constraints along the State Highway interface.

Infrastructure solutions are available or identifiable, but servicing is not currently confirmed in full. Water and wastewater servicing depend on trunk upgrade timing, local capacity confirmation, and detailed design. Stormwater management will need to be provided through developer-led design and mitigation. Transport servicing depends on safe access arrangements, local road interface, and the ability to accommodate industrial vehicle movements.

On this basis, the site has a credible infrastructure delivery pathway, provided development is staged with infrastructure delivery and supported by confirmed water, wastewater, stormwater, transport, and developer-funded local servicing arrangements.

#### 4.3 144 & 200 Whitby (T-194a, T-194c, T-194b)



Figure 15 T-194a, T-194b, T-194c (showing indicative roads - black lines)

##### 4.3.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-194a	Rural 1	Deferred MDZ residential	<b>Estimated Yield:</b> Combined (240)
T-194c	Rural 2	Deferred MDZ residential	
T-194b	Rural 2	Deferred Residential Zone <i>Wakefield Development Area</i>	<b>Estimated Yield:59*</b> approx.

##### 4.3.2 Infrastructure Assessment (Category 'B2')

The infrastructure assessment for T-194a, T-194b, and T-194c considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed residential and medium density residential zoning at 144 and 200 Whitby Road, Wakefield.

The sites are located within the Wakefield growth area and are close to existing or planned infrastructure networks. However, servicing is dependent on confirmation of water supply capacity, wastewater network performance, stormwater management, transport access, and any developer-funded local works required to connect the sites to Council infrastructure.

On this basis, T-194a, T-194b, and T-194c are classified as Category B2, reflecting a credible infrastructure delivery pathway that is dependent on sequencing, upgrade confirmation, site-specific design, and developer-led mitigation.

### **Water Supply**

Water supply servicing is available in principle through the Wakefield water supply network. Council's programme includes upgrading the trunk water main from Brightwater to Wakefield and supplying water from the new Brightwater Treatment Plant (Project 86123), scheduled for Years 4–8. This upgrade is expected to improve supply capacity and resilience for Wakefield, but local pressure, flow, fire-fighting capacity, and connection requirements still need to be confirmed for the proposed development.

However, the scale and form of development enabled by the proposed zoning will need to be assessed against available pressure, flow, fire-fighting capacity, and the timing of relevant Wakefield water supply upgrades.

Any subdivision or development will need to confirm connection points, local reticulation requirements, pressure and flow performance, and any upgrades needed to meet the relevant level of service. Where local upgrades are required to service the development, these would be expected to be developer-funded through standard subdivision or land-use consent processes.

Water supply servicing is therefore achievable, but dependent on capacity confirmation, detailed design, and any required local network upgrades.

This supports a Category B2 classification for water supply.

### **Wastewater Servicing**

Wastewater servicing is a key infrastructure dependency for T-194a, T-194b, and T-194c. Wastewater servicing is dependent on completion of the Wakefield Richmond trunk main upgrades, particularly Part B, including a new pump station at Wakefield and increased capacity from Wakefield to Burkes Bank (Years 2–6). In addition, there is no existing wastewater infrastructure servicing parts of the area (notably around Higgins Road), requiring new connections and conveyance infrastructure.

The sites are within the wider Wakefield wastewater servicing area, where additional growth is dependent on confirmation of network capacity and alignment with programmed or future wastewater upgrades. Development for the full enabled yield will need capacity checks and confirmation of downstream servicing performance.

Any development will need to confirm available local and downstream wastewater capacity, connection requirements, and any developer-funded reticulation or upgrade works. Staging may be required where development uptake occurs ahead of confirmed wastewater capacity or programmed infrastructure delivery.

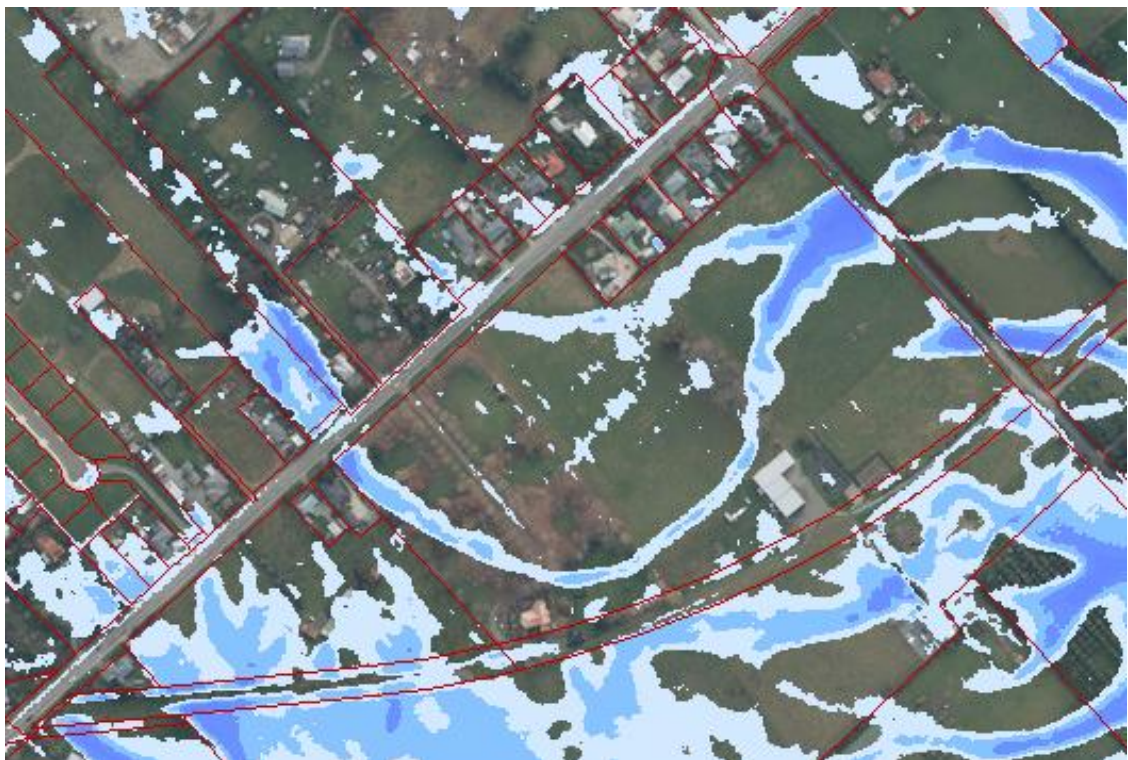
Wastewater servicing is therefore capable of being addressed, but is dependent on capacity confirmation, sequencing, and developer-led local works.

This supports a Category B2 classification for wastewater servicing.

### **Stormwater Servicing**

Stormwater servicing for T-194a, T-194b, and T-194c will need to be addressed through site-specific design.

There is no existing infrastructure designed to manage the 10% AEP storm event. Developers will be responsible for determining and funding appropriate stormwater management solutions. While the site is generally clear for the 1% AEP event, existing modelling shows certain flow paths and ponding areas may experience water depths up to approximately 90 cm. Either exclusion of the ponding area adjacent to Bird Road or conditioning for extra culvert capacity under the road is expected to be required. Stormwater solutions are to be provided by the developer.



*Figure 16 Bird Road 1% AEP flood map*

Stormwater servicing is therefore likely to be achievable where detailed design confirms an acceptable management and discharge approach.

This supports a Category B2 classification for stormwater servicing because detailed modelling, final design, discharge arrangements, and confirmed developer-led delivery mechanisms are not yet in place.

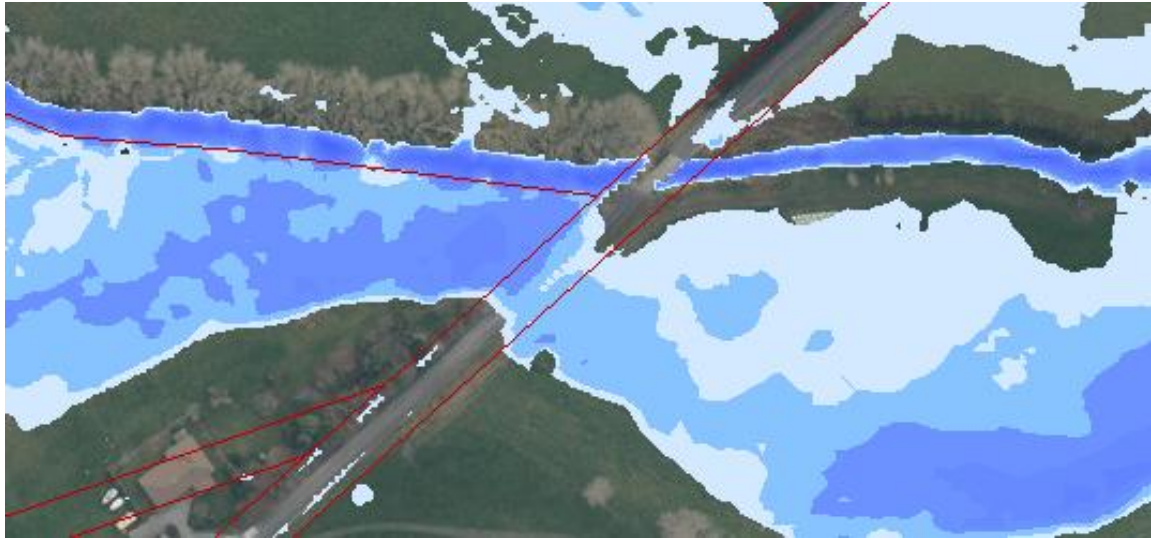
### **Transport**

Transport servicing is a key consideration for the Whitby Road sites. Referencing previous comments regarding cul-de-sac lengths, it is suggested that a Crescent layout be considered

for T-194a, or alternatively, a through road connecting Bird Road and SH6. This will require further discussion with NZTA.

For T-194b, the development would extend an already lengthy cul-de-sac. Higgins Road currently serves as an emergency access route. However, the latest stormwater hazard modelling indicates that flooding across Higgins Road south of the Pitfure Stream reaches an unsafe depth for vehicles in the 1% AEP event.

This route is therefore not recommended for emergency access.



*Figure 17 Higgins Road 1% AEP flood map*

Higgins Road may require raising in several locations to remain suitable for general traffic during flood events. That work could affect flood conveyance and may exacerbate upstream flooding unless designed with sufficient hydraulic capacity. A longer bridge or equivalent hydraulic solution may therefore be required adjacent to T-194b to raise the level of Higgins Road while allowing the modelled 1% AEP flood flow to pass.

The Great Taste Trail runs along Higgins Road, and any upgrades to this road must ensure the trail's safety and service levels are maintained.

Higgins Road is a long, straight road connecting to Lord Rutherford Road South and Robertson Road south of Brightwater. Introducing a connection from T-194b to Higgins Road may encourage its use as an alternative to SH6. However, the road's straight alignment may lead to high vehicle speeds, creating safety risks for both motorists and Great Taste Trail users.

### **Recommendations**

- (a) Realign the Higgins Road / Bird Road intersection to give priority to vehicles travelling between Higgins Road and Bird Road rather than along Higgins Road to Brightwater (at developer's cost).
- (b) Defer development in T-194a pending upgrades to the SH6 / Bird Road / Bird Lane intersection. A minor upgrade is included in the LTP, though it may require upgrade to a full roundabout.
- (c) Defer development for T-194b until Higgins Road between the connection to T-194b and Bird Road is upgraded (including appropriate measures for the Great

Taste Trail) and the SH6 / Bird Road / Bird Lane intersection upgrade (at developer's cost).

- (d) Establish a clear trigger point for implementing a full intersection upgrade.

Development will need to confirm safe and efficient access to Whitby Road, including sight distances, access spacing, frontage treatments, internal road layout, walking and cycling connections, and any local road or intersection improvements required to support the proposed development scale.

The final site layout will need to integrate transport access with servicing corridors, stormwater management, and any staging requirements. If the medium density components generate additional local traffic or parking demand, these effects will need to be addressed through subdivision design and consent conditions.

Transport servicing is therefore achievable, but dependent on access design, local road interface, staging, and any developer-funded frontage or transport improvements.

This supports a Category B2 classification for transport.

### Overall Infrastructure servicing Conclusion

T194a, T194b, and T194c are appropriately classified as **Category B2**.

Infrastructure servicing is available or identifiable in principle but not confirmed in full. The principal dependencies are wastewater capacity confirmation, stormwater design and discharge management, water supply and fire-fighting capacity confirmation, and transport access design.

The sites have a credible infrastructure delivery pathway, provided development is supported by detailed servicing investigations, confirmed connection and capacity arrangements, site-specific stormwater design, safe transport access, staging where required, and developer-funded local infrastructure works.

On this basis, the proposed zoning can be supported from an infrastructure perspective where development is sequenced with confirmed infrastructure capacity and delivery requirements.

## 5 Brightwater Infrastructure Assessments

### AMP projects relating to site infrastructure capacity

AMP 2024-2054 - Capital budget					
Wastewater		Water		Stormwater	
96053 Part A- Brightwater main WWPS upgrade and pressure main upgrade from Brightwater pump station to Burkes bank	Yrs 4-6 \$4.7m	86008 SH6 Main renewal	Yrs 1-2 \$2.76m	66099 Brightwater capacity Upgrade for intensification (FDS T-002)	Yrs 2-4 \$605K
96080 Part B- New pump station at Wakefield and increase capacity of mains from Wakefield to Burkes Bank	Yrs 2-6 \$21.3m	86123 Waimea Water Strategy – Brightwater & Wakefield Water Reticulation	Yrs 4-9 \$29m	66100 Brightwater Business Area Capacity Upgrades (FDS T-105)	Yr 7 \$300K

96081 Part C – new pressure mains from Burkes Bank to Beach Road Pump Station and connecting in Richmond South Pump Station	Yrs 6-10 \$30.3m	86184 Brightwater Reticulation Upgrades	Yrs 3-5 \$2.2m		
96015 New pressure main Brightwater north Pump station (Wairoa) to Beach Road pump station	Yrs 6-7				

*Table 5 Brightwater 2024-2054 AMP Detailed capital budgets*

Some projects which were included in the 2021-31 period of the 2021-51 LTP (such as Brightwater cycle facilities) have been deferred beyond 2034 in the 2024-54 LTP.

**Brightwater – Settlement Infrastructure Context**

Brightwater is a smaller settlement within the Waimea catchment, identified in the Nelson Tasman Future Development Strategy (FDS) as providing for residential growth and some industrial activity. Compared with larger centres such as Richmond, Brightwater’s infrastructure networks are more sensitive to growth timing and cumulative uptake, with key sensitivities relating to wastewater trunk capacity, stormwater performance in low lying areas, and transport interfaces with State Highway 6.

Infrastructure servicing in Brightwater is therefore characterised by constraint, but with a credible pathway for staged development aligned with infrastructure delivery. Some development can be supported through staged implementation aligned with programmed upgrades, while other areas remain subject to infrastructure constraints that limit development at this time.

The following assessments apply the infrastructure category classification for individual PC81 sites within Brightwater.

## 5.1 Katania intensification (T-104a, T-104b)



Figure 18 T-104a, T-104b (Indicative walkway- red dashed line, blue dashed line development area)

### 5.1.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-104a	Residential	Residential + Brightwater Development Area Overlay	<b>Estimated Yield: 52</b>
T-104b	Rural 1	Residential + Brightwater Development Area Overlay	

### 5.1.2 Infrastructure assessment (Category 'C')

The infrastructure assessment for T-104a and T-104b considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed medium density residential zoning at Katania Heights, Brightwater.

The sites are located within an established residential area but are affected by infrastructure dependencies that are not yet resolved. Servicing depends on confirmation of water supply

capacity, wastewater network performance, stormwater management, transport access arrangements, and the timing and scope of future infrastructure upgrades.

### **Water Supply**

Water supply servicing is available in principle through the Brightwater water supply network. However, the ability of the network to support the proposed medium density residential zoning has not yet been confirmed. The site is currently unserviced for drinking water and is not connected to the Brightwater Water Supply Network. No specific projects within Council's current programme directly address this proposal. However, the Waimea Water Strategy Project (86123), scheduled for years 4–9, will enhance the overall capacity and security of the Brightwater supply. It is anticipated that the developer will be responsible for installing a new supply main and connecting to the existing trunk main located at the base of Katania Heights.

Further assessment is required to confirm pressure, flow, fire-fighting supply, connection arrangements, and the extent of any local or network upgrades required to support the proposed development scale. If additional upgrades are required, their timing, funding, and delivery responsibility would need to be confirmed before servicing can be relied on.

Water supply servicing is therefore not confirmed in full for the proposed zoning. This contributes to the Category C classification until capacity, upgrade requirements, and delivery arrangements are confirmed.

### **Wastewater Servicing**

The Wakefield Richmond trunk main upgrade (parts A and B) is necessary to provide sufficient capacity.

Wastewater servicing is a key unresolved infrastructure matter for T-104a and T-104b.

The proposed medium density residential zoning would increase wastewater demand within the Brightwater network. The ability of the existing network to accommodate the proposed development scale has not yet been confirmed, and servicing may depend on future network upgrades, local reticulation works, or other infrastructure responses.

Development would need confirmation that wastewater capacity is available for the full enabled yield with further investigation required to confirm available local and downstream capacity, connection arrangements, any upgrades required, and the timing and responsibility for delivering those upgrades.

Wastewater servicing therefore does not currently provide a sufficiently defined delivery pathway for the proposed zoning. This supports the Category C classification.

### **Stormwater Servicing**

Due to the site's sloping terrain, potential lack of an adequate discharge point, and urban density proposed, stormwater management presents challenges. The developer will be required to determine and fund appropriate stormwater solutions.



Figure 19 T-104a and b and downstream network showing existing OLFP and 1% AEP flooding

Stormwater servicing for T-104a and T-104b will need to be confirmed through site-specific design and catchment assessment.

The proposed medium density residential zoning is likely to increase impervious area and change runoff patterns. Development will need to demonstrate that stormwater can be managed without increasing downstream flooding, erosion, nuisance effects, or pressure on existing drainage systems.

Potential design responses may include detention, flow attenuation, overland flow path protection, finished floor level controls, erosion and sediment management, and confirmation of lawful discharge arrangements. However, the stormwater servicing approach has not yet been sufficiently defined to confirm that the proposed development can occur.

Stormwater servicing therefore contributes to the Category C classification until the required management approach, discharge arrangements, and feasible infrastructure requirements are confirmed.

## Transport

Transport access and network effects are also unresolved for T-104a and T-104b. The site benefits from a good cycling connection to the Great Taste Trail (GTT). The proposed Brightwater Development Area is expected to add approximately eight dwellings beyond the existing Residential zoning. While this additional yield represents a modest increase, the cumulative impact on traffic over the current zoning is likely to be more significant.

The development will extend an already long 1.2 km cul-de-sac by approximately 300 meters. Achieving compliant sight distances at the intersection with Katania Heights will be challenging.

NZTA has expressed concerns regarding sight lines at the SH6 / Robertson Road intersection and has suggested a covenant requiring vegetation removal on private property to improve visibility. Aerial photograph measurements indicate sight distances of roughly 190 meters in both directions, which falls short of the 214 meters recommended by AustRoads Guide to Intersection Design and the NTLDM for a 90 km/h design speed.

This is a pre-existing safety concern that will be slightly worsened by additional traffic from this development, with further development on Higgins Road also expected to exacerbate the issue.

Future growth is possible to the north and east of the proposed zone. A connection to this area is recommended.

## Recommendations

- (a) Upgrade the intersection between Katania Heights and the access road to comply with NTLDM requirements (at developer's cost).
- (b) Include an indicative road extending to the eastern boundary of the zone
- (c) Introduce an indicative road connection from Coppermine Crescent to Jeffries Road. This will address the existing long cul-de-sac in the long term but is not directly related to development of T-104.
- (d) Limit further new dwellings with access from Katania Heights until the additional link road is provided.

The proposed medium density residential zoning would increase local movement demands. Development would need to confirm safe and efficient access, sight distances, frontage treatments, internal layout, parking, walking and cycling connections, and any local road or intersection improvements required to support the proposed development scale.

If transport improvements are required, their scope, timing, funding, and delivery responsibility would need to be confirmed before the proposed zoning can be supported from an infrastructure perspective.

Transport servicing therefore remains insufficiently defined at the time of assessment and contributes to the **Category C** classification.

## Overall Infrastructure servicing Conclusion

T-104a and T-104b are appropriately classified as Category C.

The sites are located within an established residential area, and individual servicing solutions may be technically available. However, the proposed medium density residential

zoning depends on infrastructure matters that have not yet been confirmed in full, including water supply capacity, wastewater network performance, stormwater management, transport access, and any required future upgrades.

At the time of assessment, the infrastructure delivery pathway is not yet sufficiently defined or reliable to support a Category B1 or B2 classification. Reclassification could be reconsidered if future work confirms:

- water supply capacity, including fire-fighting flow requirements;
- wastewater capacity and any required network upgrades;
- stormwater management and discharge arrangements;
- safe transport access and any required local improvements; and
- timing, funding, staging, and delivery responsibilities for any required infrastructure works.

## 5.2 Factory Road, Brightwater (T-171, T-171a)



Figure 20 T-171, T-171a Light industrial

### 5.2.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-171	Tourist services	Light industrial	Minimum net area 500m <sup>2</sup> No increase in number of lots between zones

T-171a	Rural Industrial	Light industrial	Fonterra existing site
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### 5.2.2 Infrastructure Assessment – Category B2

The infrastructure assessment for T-171 and T-171a considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed light industrial zoning at Factory Road, Brightwater.

The two areas have different servicing positions. T-171 is located where infrastructure servicing is available or identifiable, subject to confirmation of capacity, upgrade timing, and any developer-funded local works. T-171 is therefore classified as Category B, reflecting a credible infrastructure delivery pathway.

T-171a is more dependent on future infrastructure delivery and has not yet been confirmed as serviceable on the information currently available

#### **Water Supply**

Water supply servicing for the Factory Road industrial area is available in principle through the Brightwater water supply network. However, industrial development may generate demand profiles that differ from residential growth assumptions, particularly where larger buildings, fire-fighting supply, or higher operational water use is required.

For T-171, water supply servicing can be addressed through capacity confirmation, detailed design, and any required developer-funded local connections or upgrades.

For T-171a, the ability to provide water supply servicing has not yet been confirmed in full. Further assessment is required to confirm pressure, flow, fire-fighting supply, connection points, and any network upgrades required to support the proposed zoning.

#### **Wastewater servicing**

Wastewater servicing is a key infrastructure consideration for both T-171 and T-171a.

For T-171, wastewater servicing is available or identifiable in principle, but capacity will need to be confirmed before development proceeds. Industrial development may generate wastewater flows and trade waste characteristics that differ from standard residential assumptions. Any development will therefore need to confirm likely wastewater demand, trade waste requirements, downstream capacity, and any developer-funded local reticulation works.

For T-171a, wastewater servicing requires further investigation is required to establish whether local and downstream wastewater capacity is available, whether upgrades are required, and how those upgrades would be funded, staged, and delivered.

This supports a Category B2 classification, subject to capacity confirmation and detailed design.

#### **Stormwater Servicing**

Stormwater servicing for the Factory Road area will need to be addressed through site-specific design. There is no existing infrastructure to manage 10% or 1% AEP storm events for either site.

Site 171 is relatively unaffected. Developers will be responsible for determining and funding appropriate stormwater management solutions.

Site 171a Part of this site is very vulnerable to river flooding up to H5 rating (Refer Appendix C). This should exclude the component area from further development until sufficient hazard mitigation is determined. (Refer to Natural Hazards Assessment.)

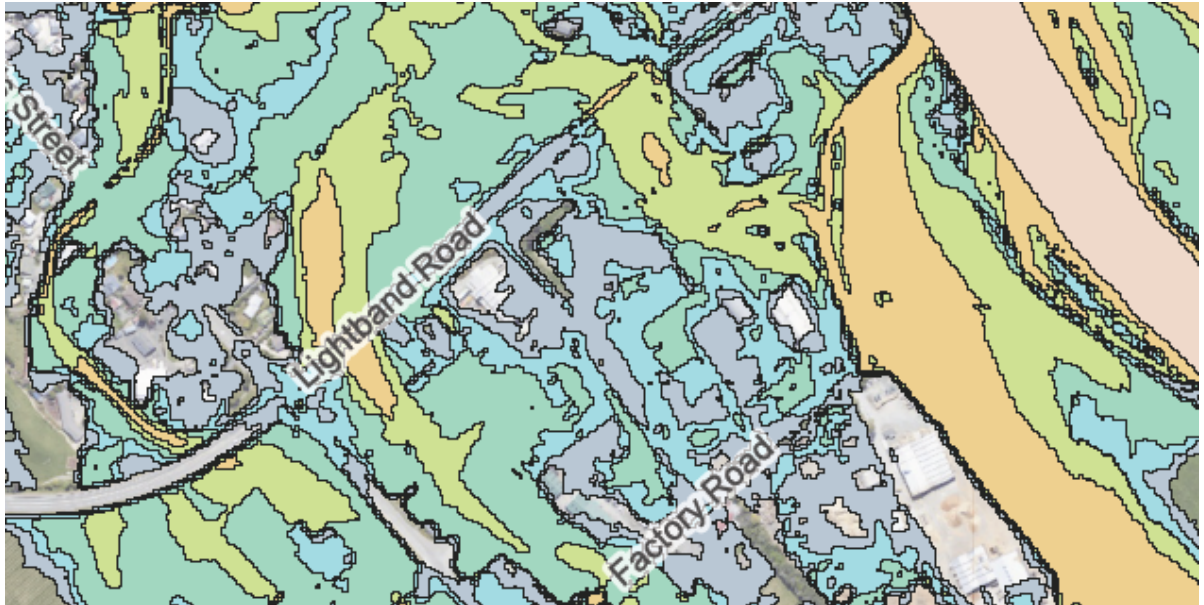


Figure 21 Factory Rd Brightwater Inundation Hazard in 1% AEP event

For T-171, stormwater management is expected to be achievable through detailed design, including detention, treatment, flow attenuation, erosion and sediment control, overland flow path management, and confirmation of lawful discharge arrangements. The same is expected for T-171a however there is more uncertainty for this site. This supports a Category B2 classification as neither feasibility nor developer agreement is confirmed.

### Transport

Transport servicing is a key consideration for the Factory Road sites. The proposed change appears consistent with the current site use, and significant transport impacts are unlikely.

For T-171 and T-171a, transport matters can be addressed through detailed access design, subdivision or land-use consenting, and any developer-funded frontage or local transport improvements. This supports a Category B2 classification

### Overall Infrastructure servicing Conclusion

Infrastructure constraints are site-specific and manageable through mitigation and development controls. Infrastructure servicing is available or identifiable in principle, provided development is supported by capacity confirmation, detailed design, stormwater management, transport access design, and any required developer-funded local works.

The sites are classified as **Category B2**

### 5.3 Ellis Street (T-106)



Figure 22 T-106

#### 5.3.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-106	Light industrial	Commercial	<b>Estimated Yield: 2-3 Lots</b>

#### 5.3.2 Infrastructure Assessment (Category 'A')

The infrastructure assessment for T-106 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed commercial zoning at 34 and 36 Ellis Street, Brightwater.

The site is located within the existing Brightwater urban area and is served by established infrastructure networks. The proposed commercial zoning is not expected to create a material servicing dependency beyond normal connection, design, and consenting requirements.

On this basis, T-106 is classified as Category A, reflecting that infrastructure required to service the proposed zoning is available and no material reliance on future Council upgrades has been identified.

#### **Water Supply**

Water supply servicing is available through the existing Brightwater reticulated water supply network. Water supply servicing therefore supports a Category A classification, as no material network upgrade dependency has been identified.

### **Wastewater servicing**

Wastewater servicing is available through the existing Brightwater wastewater network. Wastewater servicing therefore supports a Category A classification, as servicing is available and no material delivery dependency has been identified.

### **Stormwater servicing**

Stormwater servicing can be addressed through existing urban drainage arrangements and site-specific design at development stage.

The site is serviced for the 10% AEP event and is not significantly affected by the modelled 1% AEP event. Stormwater servicing therefore supports a Category A classification, provided site-specific stormwater design is confirmed through the normal consenting process.

### **Transport**

Transport access is available from the existing local road network.

The proposed change aligns with current use. However, the existing access point for fuel pumps crossing the Great Taste Trail (GTT) does not meet current best practice standards.

More intensive commercial development beyond the current service station may increase parking demand in the Brightwater commercial centre.

Transport servicing therefore supports a Category A classification, as no future Council transport upgrade is required to enable the proposed zoning on the information currently available.

### **Overall Infrastructure servicing Conclusion**

T-106 is appropriately classified as **Category A**.

The site is located within the existing Brightwater urban area and is serviced by established water, wastewater, stormwater, and transport infrastructure. The proposed commercial zoning is not dependent on future Council infrastructure upgrades, although detailed design and standard consenting processes will still be required for specific connection, access, stormwater, and site layout matters.

## 5.4 Brightwater Town infill (T-002, T-103)



Figure 23 T-002, T-103

### 5.4.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-002	Residential	Medium Density Residential	<b>Estimated Yield: 95 lots</b>
T-103	Residential	Medium Density Residential	

### 5.4.2 Infrastructure Assessment (Category 'B1')

The infrastructure assessment for T-002 and T-103 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed Brightwater town infill medium density residential zoning. The sites are located within the existing Brightwater urban area and are close to established infrastructure networks. However, further intensification is dependent on confirmation of local water supply capacity, stormwater servicing performance, wastewater capacity, and transport access arrangements.

#### Water servicing

Water supply capacity will need to be confirmed through detailed design and any relevant network checks, particularly in terms of firefighting requirements for higher density development, before development proceeds. If local upgrades are required to meet pressure, flow, firefighting, or connection requirements, these would need to be provided through Council's programmed works or by developers through standard subdivision or land-use consent processes.

Water supply servicing is therefore considered achievable, but dependent on confirmation of local capacity, firefighting requirements and any required upgrades.

This supports a Category B2 classification for water supply.

### **Wastewater servicing**

Wastewater servicing is available in principle through the existing Brightwater wastewater network. However, infill development will contribute cumulative wastewater flows and may increase pressure on local and downstream network capacity.

Infrastructure upgrades are not expected until year 11. The overall Wakefield Richmond trunk main project includes the required trunk main upgrade to improve capacity. Local pipe upgrades are likely to be necessary in some areas, though none are currently planned. Additionally, the Sommerville Lane Wastewater Pump Station will require upgrading, which is not yet included in the LTP. The developer will be required to determine and fund appropriate wastewater solutions.

Wastewater servicing is therefore capable of supporting infill intensification where capacity is confirmed, and any required local works are provided through normal consenting or developer-funded processes.

This supports a Category B2 classification for wastewater servicing.

### **Stormwater Servicing**

The sites are partially serviced for the 10% AEP event, with mostly minor impacts from the modelled 1% AEP event. Funding allocated in the LTP will support necessary pipe upgrades to accommodate intensification in a suitable timeline in most cases.

Stormwater management was noted as an important servicing consideration for Brightwater town infill development. Consequently, the T-103 redevelopment area has already been clipped to avoid the deepest flooding areas.



*Figure 24 Central Brightwater 1% AEP flood map*

Where public stormwater upgrades are required, their timing, funding, and delivery responsibility will need to be confirmed. Where Council upgrades are not yet available, interim or site-specific developer-led mitigation may be required.

Stormwater servicing is therefore funded and expected to be available. This supports a Category A classification for stormwater servicing.

### Transport

Transport servicing for T-002 and T-103 is expected to be manageable through existing local road networks, subject to site-specific access design and any local improvements required at development stage.

Intensification of an existing urban area which includes both business and residential areas results in more people living closer to facilities and activities, meaning that trips are shorter, and easier to walk or cycle. Intensification is therefore likely to result in less transport impacts than greenfield developments further away from destinations.

This intensification area is in comfortable walking distance to the Brightwater village centre, and the Great Taste Trail runs through the area, enabling good cycling connectivity to Richmond and Wakefield.

As the eBus service only operates six daily trips in each direction per weekday, this choice is limited. This service is therefore likely to have a small impact on vehicle trip numbers.

Transport servicing is therefore achievable, but dependent on detailed layout and access design. This supports a Category A classification for transport.

### Overall Infrastructure Servicing Conclusion

T-002 and T-103 are appropriately classified as **Category B2**.

The sites are located within the existing Brightwater urban area and are generally able to connect to established infrastructure networks.

The principal servicing matters are stormwater performance and local water supply capacity. These matters are capable of being addressed through detailed design, upgrade confirmation, consenting controls, staging where required, and developer-funded local works.

On this basis, the sites have a credible infrastructure delivery pathway, provided development is sequenced with confirmed infrastructure capacity and supported by site-specific servicing design.

## 6 Tākaka Infrastructure Assessments

### AMP projects relating to site infrastructure capacity

AMP 2024-2054 AMP							
Wastewater		Water		Stormwater		Transport	
96094 Relocate Tākaka WWTP	Yrs 5-10 \$20m	No existing or proposed public drinking water	N/A		N/A	N/A	N/A

96105 Tākaka -increase capacity of pressure main between Hiawatha WWPS and the WWTP	Yrs 3-5 \$2.05m	supply network for Tākaka.		No projects planned			
96106 Tākaka – Park Ave WWPS to Fresh Choice pressure main upgrade	Yrs 10+						

*Table 6 Tākaka 2024-2054 AMP Detailed capital budgets*

Note: Some projects which were included in the 2021-31 period of the 2021-51 LTP (such as Tākaka cycle lanes) have been deferred beyond 2034 in the 2024-54 LTP.

## 6.1 Overall description of changes proposed

### Water Supply

There is currently no public drinking water supply network in or near Tākaka, and the Council has no plans to establish such a network in this area. A public firefighting water supply network exists only within the Tākaka CBD. Developers proposing new developments in this vicinity will be required to provide their own treated and reticulated water supply.

### Wastewater servicing

The Tākaka Wastewater Treatment Plant (WWTP) is approaching full capacity based on a 30-day average dry weather flow (ADWF). Development on both existing and newly zoned areas will not be able to proceed once current capacity is reached. Continuing development beyond this point would risk non-compliance with resource consent conditions and exacerbate existing operational challenges.

A new WWTP is planned beyond the 10-year LTP horizon that will include allowance for longer term growth. Additionally, considerations such as providing capacity for Fonterra will need to be addressed.

Future wastewater infrastructure upgrades for Tākaka will need to incorporate design measures to prevent localised flooding and infiltration of rainwater into the wastewater system.

### Stormwater Servicing

Tākaka stormwater infrastructure is limited, with 10% AEP pipe servicing being very limited. The township relies heavily on peripheral streams for minor event runoff management. However, large storm events, particularly flows from the Tākaka River, pose a significant flooding risk to the township and are modelled to create unsafe conditions.

### Transport

The current rezoning changes proposed for Tākaka appear fragmented, resulting in extended road sections serving relatively small and isolated developments. These roads will require ongoing maintenance. There is a need for a comprehensive, integrated transport plan for Tākaka to address these issues holistically.

## 6.2 Takaka (T-228, T-229, and T-230)



Figure 25 T-228, T-229, T-230

### 6.2.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-228	Rural 1	Light Industrial	New sites have been identified within discussions with the Golden Bay Community Board and Golden Bay Business owners. <b>NOT FDS sites</b>
T-229	Residential	Light Industrial	
T-230	Rural 1	Light Industrial	

### 6.2.2 Infrastructure assessment (Category 'C')

**Water Supply-** See General Infrastructure Status above

**Wastewater Servicing** - See General Infrastructure Status above

#### **Stormwater Servicing**

The sites are serviced by an open drain that may provide capacity for the 10% AEP storm event. However, the area is modelled to already be significantly affected by the 1% AEP event and pending significant flood diversion works, further development would create or exacerbate existing unsafe conditions. As per the plot in the figure below and the information

in Appendix C “generally safe” is a depth x velocity ( $DxV$ )<sup>3</sup> sum result of less than 0.3 m<sup>2</sup>/s. NTLDM section 5.4.3.12 expects designs not to exceed this threshold for pedestrian or vehicle safety.

This lack of an identified and funded solution supports a Category C classification for stormwater and a recommendation that wider scale flood diversion works are identified and funded prior to any development proceeding in this area.

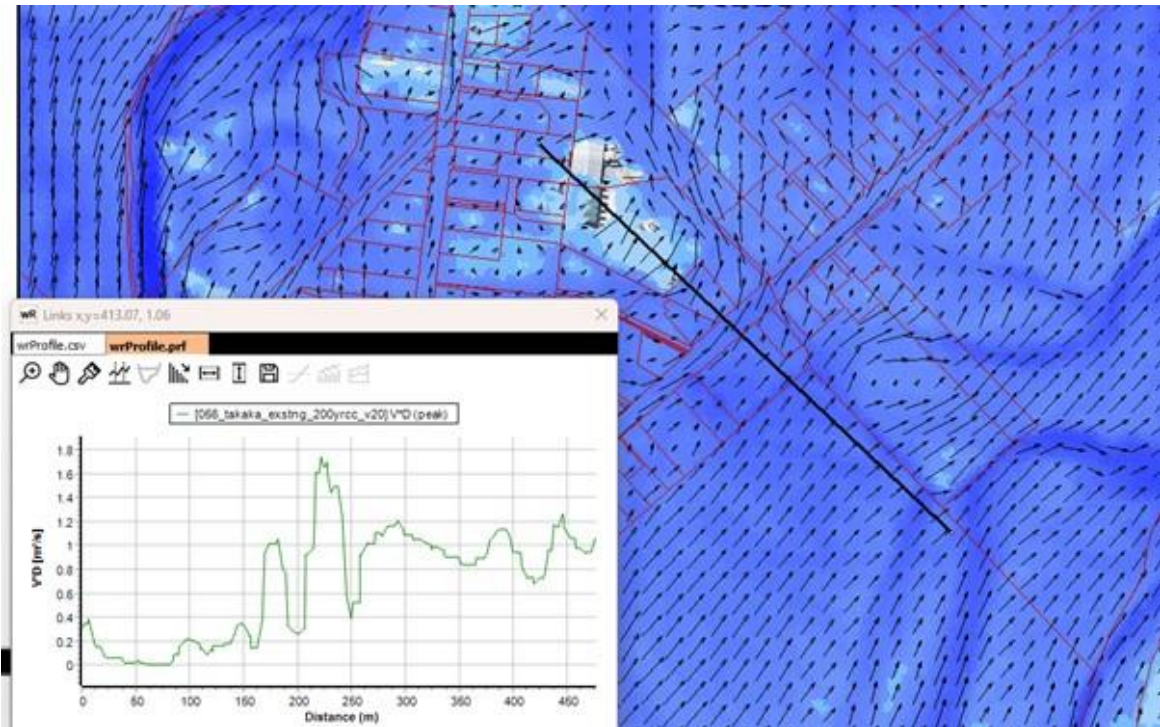


Figure 26 Depth and velocity of flooding for Takaka growth cells in 1% AEP event

## Transport

Clarification is needed on how long the adjacent land will remain zoned Rural 1. Indicative roads are recommended to enable future access to this land. Existing access at 58a and 46 Motupipi Street is inadequate for further development. Motupipi Street lacks cycling facilities and has only one footpath.

## Recommend

- Provision of an indicative road forming a crescent (potentially between 36 and 78 Motupipi Street) and
- Provide appropriate walking and cycling infrastructure along Motupipi Street to Willow Street.

Transport servicing for the proposed light industrial zoning will need to be confirmed through access and network assessment. Industrial development may generate heavy vehicle movements, staff trips, service vehicle movements, and turning requirements that differ from residential or rural activity. Development will need to confirm safe and efficient access, sight

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<sup>3</sup>  $DxV$  in 1% events is covered by the development manual mainly written by and for engineers and is the link to stormwater assessment.

distances, access spacing, frontage treatments, internal circulation, parking, loading, and any local road or intersection improvements required to support the proposed activity. Transport servicing may be capable of being addressed through detailed design and consent conditions. However, any required access or local network improvements have not yet been sufficiently defined, costed, secured, or confirmed as deliverable.

### Overall Infrastructure Servicing Conclusion

T-228, T-229, and T-230 are appropriately classified as **Category C**. The sites may be technically serviceable in some respects, stormwater, and transport matters may be capable of being addressed through detailed design and development controls/works. However, wastewater servicing remains unresolved and is fundamental to whether the proposed light industrial zoning can be supported.

At the time of assessment, there is no sufficiently defined or reliable wastewater delivery pathway for the sites. The required servicing approach, network and treatment capacity, trade waste requirements, upgrade scope, timing, funding, and delivery responsibilities have not yet been confirmed.

## 6.3 Windle Road (T-144)



Figure 27 T-144 (Indicative Road shown as black line)

### 6.3.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-144	Rural 1	Rural 1 Deferred residential	<b>Estimated Yield: 67</b>

### 6.3.2 Infrastructure assessment (Category 'B2')

T-144 is classified as Category B2, reflecting a credible infrastructure delivery pathway subject to confirmed servicing capacity, staging, developer-led infrastructure, and an NZTA-approved intersection solution before development proceeds.

## **Water Supply**

Refer to General Infrastructure Status above. The Central Tākaka Water Supply scheme, which is privately owned and operated, currently supplies properties nearby on Park Avenue. Its capacity to serve additional properties is unknown. If connection to this scheme is not feasible, the developer will be required to provide an independent reticulated water supply.

Water supply is therefore achievable in principle, but dependent on confirmation of capacity and the delivery of a suitable developer-led supply solution. This supports a Category B1 classification for water supply.

## **Wastewater**

Refer to General Infrastructure Status above. There is currently no capacity in the rising main between Park Avenue WWPS and Fresh Choice to accommodate the proposed zone change. Although the LTP includes a project to renew this rising main, it is scheduled beyond the 10-year horizon. This project would need to be advanced to enable development under the proposed zoning.

Wastewater servicing is therefore identifiable but timing dependent. Development will require confirmed capacity in the Park Avenue rising main, or until a developer-led or Council-approved servicing solution is secured. This supports a Category B2 classification for wastewater servicing.

## **Stormwater**

The area is not serviced for the 10% AEP event. However, minimal impacts are expected even from the 1% AEP event. Stormwater servicing is therefore highly likely to be achievable but dependent on detailed design, developer-funded infrastructure extension, and site-specific mitigation. This supports a Category B2 classification for stormwater servicing as no confirmed modelling or developer agreement are in place.

## **Transport**

Transport access is the principal servicing dependency for T-144. The site benefits from proximity to community, health, and sports facilities. NZTA has recommended relocating this site closer to the previously proposed industrial site at Pages Road to share a common access to SH60.

The current five-way intersection of Park Avenue, Dodson Road, SH60, and sports field access presents multiple safety concerns:

- Park Avenue approaches SH60 at a very shallow angle. This requires drivers turning right onto Tākaka Valley Highway to look back over their shoulders to see traffic approaching from the south. There are multiple objects that could block a driver's visibility in that direction, including the vehicle's "B" pillar, passenger head restraint, and the passenger themselves.
- The proximity of Park Avenue and the sports centre access could result in a left turn indicator on a vehicle approaching from the north being misinterpreted by either a driver turning out of the sports centre access, or by a pedestrian or cyclist crossing Park Avenue and the sports centre access.
- This could result in a vehicle turning out of the sports centre access pulling out in front of a vehicle they thought was turning into the sports centre, but which was

in fact turning into Park Avenue. Similarly, a pedestrian or cyclist crossing Park Avenue could cross in front of a vehicle they thought was turning into the sports centre.

- The shallow angle of Park Avenue is likely to result in higher approach speeds for vehicles turning into Park Avenue from the north. This means that any crashes involving those vehicles is likely to be more severe than at typical intersections. Due to these issues, increased traffic beyond currently consented but undeveloped lots significantly increases the road safety issue without an approved intersection upgrade.

An intersection upgrade, approved by NZTA, is required.

#### **Options could include:**

Option 1: Re-route Park Lane via the recreation reserve

- Requires construction through designated recreational land
- Results in loss of tennis courts and reserve functionality

Option 2: Re-route Park Lane along the unformed legal road to SH60

- Steep alignment
- Significant earthworks required, with attendant cost and environmental effects

Option 3: Relocate development closer to the potential industrial area

- Enables a single, consolidated access to SH60
- May require reserve land and potential land-swap arrangements (including A&P land)

Option 4: Utilise one of the park Road realignments

- Requires substantial upgrades to Park Road
- Introduces heavy vehicle movements through an existing residential area

#### **Recommend**

- That investigation and delivery of an intersection upgrade approved by NZTA be required prior to development proceeding.
- That an indicative road link to the edge of the proposed zone be shown to protect future connectivity.
- Any required intersection upgrade is expected to be developer-led, noting that the primary benefits accrue to an individual landowner rather than the wider network.

Transport servicing is therefore achievable only if an acceptable developer-led access and intersection solution is investigated, approved by NZTA, and delivered before development proceeds. This supports a Category B2 classification for transport.

#### **Overall Infrastructure servicing Conclusion**

T-144 is appropriately classified as **Category B2**.

Infrastructure servicing is not currently available in full, but a credible delivery pathway is available if key dependencies are resolved. Water supply depends on confirmation of capacity in the privately owned Central Tākaka Water Supply scheme or provision of an independent developer-led reticulated supply. Wastewater servicing depends on advancement of the Park Avenue rising main renewal or confirmation of an alternative servicing solution. Stormwater servicing depends on developer-funded extension of primary infrastructure and site-specific mitigation.

Transport is the principal unresolved servicing matter. Prior to development a NZTA approved intersection and access solution will need to be confirmed and delivered. Potential mitigation options introduce complexity, reliance on public open space or third-party land, and uncertainty about long-term network operation.

## 6.4 part 32 Rototai Road (T-138a)



Figure 28 T-138a (Indicative Road shown as black line)

### 6.4.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-168a	Rural 1	MDZ residential	<b>Estimated Yield: 98</b>

### 6.4.2 Infrastructure assessment (Category 'B2')

The infrastructure assessment for T-138a considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed rezoning from Rural 1 to Residential Zone at Rototai Road, Tākaka. T-138a is classified as Category B2, reflecting a credible infrastructure delivery pathway subject to developer-led servicing, infrastructure upgrades, sequencing, and confirmation through subdivision design and consenting.

#### Water Supply

Refer to General Tākaka Infrastructure Status above.

Reticulated Council water servicing is not available to T-138a. Development will therefore require a developer-provided water supply solution.

Water supply is achievable in principle, but it is dependent on a suitable developer-led servicing solution being confirmed before development proceeds. This supports a Category B2 classification for water supply.

### **Wastewater Servicing**

Refer to General Infrastructure Status above. The School Wastewater Pump Station (WWPS) and rising main to Waitapu WWPS require upgrading at the developer's expense. There is likely to be challenges in conveying effluent from the zoned area to the school WWPS, potentially necessitating investigation into options such as a low-pressure pump system.

Capacity for treatment of additional wastewater flow at the Tākaka Wastewater Treatment Plant is also limited. This means that wastewater servicing depends not only on local pump station and rising main upgrades, but also on confirmation that downstream treatment capacity is available.

The use of onsite wastewater treatment systems if no WWTP access or capacity would be challenging considering the high-water table.

Wastewater servicing is therefore identifiable but dependent on developer-funded upgrades, confirmation of downstream treatment capacity, and sequencing before occupation. This supports a Category B2 classification for wastewater servicing.

### **Stormwater Servicing**

Minor impacts are expected from the 1% AEP event, which can be mitigated during subdivision. Existing 10% AEP infrastructure is limited, and any required upgrades expected to be developer-led and funded as no Council projects are identified for Takaka.

Development will need to confirm how stormwater runoff will be managed, including any required extensions or upgrades to primary stormwater infrastructure. Sufficient stormwater servicing is considered likely to be achievable, but dependent on site-specific design and developer-funded mitigation. This supports a Category B2 classification for stormwater servicing as no confirmed modelling or Developer agreements are in place.

### **Transport**

From a transport perspective, T-138a is a logical extension of the Tākaka urban area. It is adjacent to, and opposite, existing Residential zones. It is diagonally opposite Golden Bay High School, and less than 200m from Tākaka Primary School. It is approximately 1.3km from the Tākaka central Commercial zone, and 1.2km from the Meihana Street Light Industrial zone.

An Outline Structure Plan has been developed for this site, and the adjacent undeveloped Residential zoned land. This plan enables connectivity to adjacent land, which could possibly be developed in the future.

In order to take full advantage of the benefits of this and adjacent sites the following recommendations are made:

- A footpath connection is provided on Rototai Road to Meihana Street. (at developer's cost)

- Cul-de-sacs are minimised.

Transport servicing is achievable, provided the Outline Structure Plan is implemented and pedestrian connectivity improvements are delivered. This supports a Category A classification for transport.

The site has a credible infrastructure delivery pathway, but servicing is dependent on developer-led infrastructure and confirmation through detailed design. Water supply requires a developer-provided solution because Council reticulated water is not available. Wastewater servicing depends on upgrades to the School Wastewater Pump Station and rising main to Waitapu Wastewater Pump Station, confirmation of conveyance arrangements from the site, and confirmation of treatment capacity at the Tākaka Wastewater Treatment Plant. Stormwater servicing depends on site-specific mitigation and likely developer-funded infrastructure upgrades.

Transport outcomes are favourable in principle because the site is close to existing residential areas, schools, recreation facilities, and the Tākaka town centre. However, development should implement the Outline Structure Plan, provide the Rototai Road footpath connection to Meihana Street, and minimise cul-de-sac outcomes.

On this basis, development can be supported where servicing is staged with confirmed water, wastewater, stormwater, and transport infrastructure requirements, and where developer-funded works are secured before development or occupation proceeds.

### Overall Infrastructure assessment for– Tākaka

T-138a is appropriately classified as **Category B2**.

Infrastructure servicing in Tākaka has a high level of delivery dependency, driven primarily by wastewater capacity constraints, significant stormwater and flood constraints, and the absence of a public potable water supply. Transport effects are generally incremental and may be manageable in isolation; however, the combined servicing limitations across multiple networks reduce confidence that all enabled development can be serviced without further confirmed infrastructure solutions.

## 7 Pōhara Infrastructure Assessments

### Capacity information for infrastructure

AMP 2024-2054 AMP							
Wastewater		Water		Stormwater		Transport	
No projects	n/a	No projects	n/a	No projects	n/a	No projects	n/a

Some projects which were included in the 2021-31 period of the 2021-51 LTP (such as the Pōhara to Tata Beach pathway) have been deferred beyond 2034 in the 2024-54 LTP. Site. The T-227 (shown below) is to be rezoned from Residential Zone to Papakāinga Zone. (Onetahua Marae) and is not a FDS site.



Figure 29 T-227

### 7.1.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-227	Residential	Māori Purpose	Not a FDS site <b>Estimated Yield not known</b>

### 7.1.2 Infrastructure assessment (Category 'B1')

The site is classified as Category B1, reflecting that servicing is available or manageable in principle, but development remains dependent on site-specific design, water pressure limitations, onsite stormwater management, and transport safety considerations.

#### Water Supply

The property is currently connected to and serviced by the Council's Pōhara Valley Water Scheme. Due to its elevation relative to the scheme reservoirs, the water pressure at the property does not meet the service level expectations. With no change proposed to use or demand, the property will continue to experience the same limited water pressure.

The site is therefore classified as Category B1 for water.

#### Stormwater Servicing

The site is unserviced for both 10% and 1% AEP storm events, with on-site soakage likely as the primary management method. An OLFP crosses the corner of the site which would need consideration in any redevelopment of the site. Any site specific infrastructure can be delivered as part of the development. The site is therefore classified as Category A for stormwater.

#### Wastewater Servicing

Existing wastewater connections are available; no changes are anticipated for Papakāinga development. Any site specific infrastructure can be delivered as part of the development. The site is therefore classified as Category A for wastewater.

## Transport

Permitted activities under the Papakāinga zone remain unspecified at this time.

An extension of the Marae buildings may increase parking demand, potentially including bus parking and manoeuvring. The combination of reversing buses and the presence of tamariki presents a potential safety concern.

This site specific infrastructure can be delivered as part of the development. The site is therefore classified as Category A for transport.

### **Overall Infrastructure Servicing Conclusion – Pōhara**

The Pōhara Papakāinga site is appropriately classified as **Category B1**.

The scale of change currently assumed is limited, and the proposal does not appear to create significant growth-driven demand on Council-funded infrastructure networks. Existing water and wastewater connections are available. However, water pressure is below expected service levels, stormwater is not provided through a reticulated Council system, and future transport requirements depend on the final activities enabled by the Papakāinga zone.

The key infrastructure matters are therefore localised and site-specific. Future development should confirm water supply pressure and fire-fighting requirements; wastewater capacity if demand increases, onsite stormwater management, overland flow path protection, parking provision, and safe vehicle and pedestrian movement within the site.

On this basis, the site has a credible infrastructure delivery pathway, provided future development is supported by detailed design and consenting controls that respond to the known water pressure, stormwater, and transport constraints.

## 8 Motueka Infrastructure Assessments

### AMP information for infrastructure

AMP 2024-2054 AMP							
Wastewater		Water		Stormwater		Transport	
96064 New rising main Motueka – stage 1 Grey Street to Pā street	Work underway or complete	86066– Grey Street Watermain Extension to King Edward St.  [No specific water project planned in High Street]  Adequate water network capacity available	Yr 6/7	66094 Motueka High Street at Wratt Street Overland Flow Path Improvements	Y3 \$300K	No Projects	N/A
				66098 capacity upgrades for intensification – 8 Hickmott Place Motueka	Y2 \$300K		
				66007 – Motueka West Discharge System	Year 1 \$2.1M (complete)		

#### 8.1 Motueka High Street Frontage (T-190a, T-190b, T190c, T 190d)



Figure 30 T-190a, T-190b, T-190c, T-190d Indicative walkway highlighted red parallel with High Street.

### 8.1.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-190a	Tourist services deferred residential with compact density	Medium Density Residential	<b>Overall a-d yield: 174</b>
T-190b		Medium Density Residential	
T-190c	Residential	Medium Density Residential	
T-190d	Residential	Medium Density Residential	Red area highlighted fronts onto SH frontage

### 8.1.2 Infrastructure Assessment (Category 'C')

#### Overview

The infrastructure assessment for T-190a, T-190b, T-190c, and T-190d considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed medium density residential zoning along the Motueka High Street frontage.

The Motueka High Street frontage sites (T-190a, T-190b, T-190c and T-190d) are located within an existing serviced urban area. While some local infrastructure connections are available, the ability of the wider wastewater and stormwater networks to support further intensification is substantially constrained. Infrastructure servicing for this area is constrained by cumulative wastewater capacity limits, stormwater flood exposure, and reliance on deferred network upgrades.

T-190b has been reduced in extent to cover only the southern portion of Whakarewa Trust land. T-190c has also been significantly reduced in size and now includes only the Kāinga Ora-owned land. T-190d comprises an area of existing residential development, the majority of which is owned by the Whakarewa Trust. This area presents a future opportunity for redevelopment to support Medium Density Zone (MDZ) housing. It has been recommended that an Outline Spatial Plan (ODP) be prepared to guide redevelopment, including provision for rear access to support efficient site layout and connectivity.

#### Water Supply

Adequate trunk water mains are available in Whakarewa Street and Grey Street, and the Motueka water supply system has sufficient overall capacity to support additional dwellings in principle.

However, there is currently no public water main along the High Street frontage between Whakarewa Street and King Edward Street. Council's Long-Term Plan includes Project 86266 (Years 6–7) to extend the Grey Street trunk main to King Edward Street. Until that extension is delivered, any water servicing to development fronting High Street would require developer-funded extensions either within the site or along the frontage.

This is a delivery timing and cost issue rather than a fundamental supply constraint.

Until the water main extension is delivered, any water servicing for development fronting High Street would require developer-funded extensions either within the site or along the frontage. This is a delivery timing and cost matter rather than a fundamental water supply constraint.

Water supply servicing is therefore achievable in principle, subject to either alignment with the Long-Term Plan project or delivery of developer-funded extensions. This supports a Category B-type servicing pathway for water supply, but water supply is not the reason for the overall Category C classification.

### **Wastewater servicing (T-190a, b, c, and d)**

Wastewater servicing is a primary infrastructure constraint for T-190a, T-190b, T-190c, and T-190d.

Wastewater reticulation and connections are available within parts of the assessment area, particularly at locations T-190c and T-190d. However, those areas can support only limited intensification under current network conditions.

The existing High Street wastewater reticulation is ageing and undersized and requires upgrade and replacement to support additional development. Development within locations a and b cannot rely on the High Street network and would instead be required to connect into the Motueka West Phase 1 (Wakatu) wastewater network.

At a wider scale, the Motueka wastewater system, including the pumped network and wastewater treatment plant, is currently operating at or near capacity. There is very limited ability to accommodate additional loading or new connections without significant intervention. As a result, the PC81 proposed Medium Density Residential zoning may not be fully realised without substantive upgrades.

Future development is contingent on:

- construction of a new wastewater treatment plant,
- reconfiguration and upgrading of the pressure reticulation system, and
- incorporation of flood-resilient design measures, including raising gully traps and manholes above current and future flood levels to reduce inflow and infiltration.

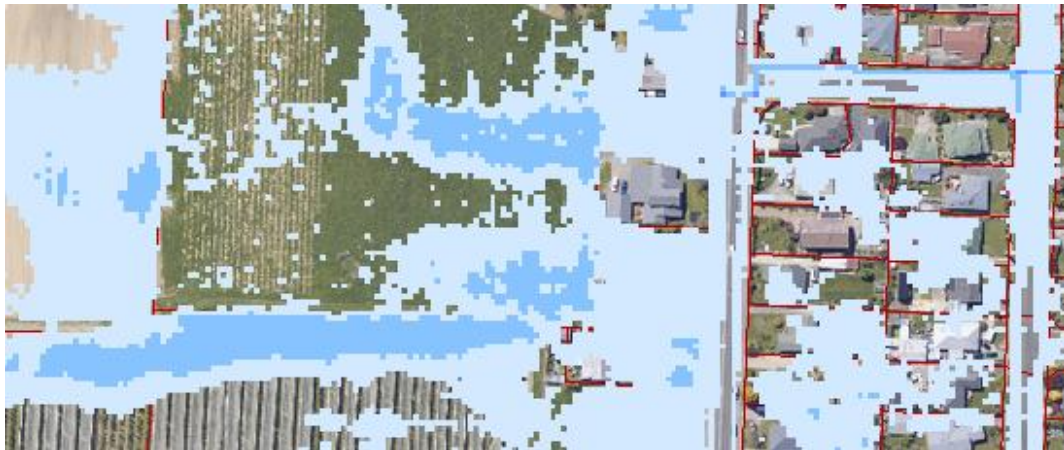
Until these upgrades are delivered, wastewater capacity remains a primary limiting factor for development. Wastewater servicing therefore does not currently provide a sufficiently defined or reliable delivery pathway for the full proposed zoning and supports the overall Category C classification.

### **Stormwater Servicing**

Stormwater servicing across the Motueka High Street frontage for sites (T-190a, T-190b, T-190c and T-190d) is constrained and varies across the sites. A major stormwater pipe and swale upgrade has recently been completed in the wider area, improving capacity for parts of the network. However, stormwater modelling continues to show extensive flooding across this locality during the 1% AEP event, with multiple OLFPs and areas of localised ponding.

Some incoming flow paths are expected to be better mitigated in the short term as development to the west is completed. Nonetheless, overall discharge capacity is anticipated to remain insufficient for an extended period. As a result, stormwater effects cannot be fully

resolved through site-by-site mitigation alone and will require comprehensive interim design responses, with further planning and investment by developers and/or Council.



*Figure 31 High Street 1% AEP Flood modelling*

Parts of the site frontage are currently served by limited stormwater infrastructure. In these areas, redevelopment will need to rely on site-specific stormwater management measures, such as detention, soakage, and careful control of finished floor levels, unless developer-funded upgrades to the public stormwater network are provided. Flood hazard mapping identifies moderate OLFP and localised ponding depths of up to approximately 0.3 to 0.5 metres during a 1% AEP event (as shown in figure above). These effects influence site layout and building design and will need to be addressed at subdivision and redevelopment stage.

The site is also modelled to be vulnerable to storm tide inundation under a 1.5-metre SLR scenario. This represents a direct risk and would also impede stormwater (and groundwater) discharge. Collectively, ongoing inundation risk management for this area is therefore dependent on the continued effective operation of the existing tide gate infrastructure but this will likely need enhancement in the longer term.

Stormwater therefore remains a significant and ongoing servicing constraint. While some mitigation is achievable through interim and site-specific measures, longer-term performance depends on wider catchment-level solutions and coordinated infrastructure upgrades. This supports the overall **Category C** classification.

#### **Transport for Motueka sites (T-190a, b, c, d)**

The T-190a, T-190b, T-190c, and T-190d sites are well positioned from a transport perspective because of their close proximity to the Motueka town centre and local schools.

Future redevelopment of properties fronting High Street presents an opportunity to enable corridor widening to support walking and cycling infrastructure. Several properties (306–310 and 330–334 High Street) already feature widened frontages that could facilitate this outcome.

Increased residential density and the associated rise in vehicle access points along High Street are likely to elevate the potential for conflicts between turning vehicles, through traffic, pedestrians, and cyclists. This risk can be mitigated by restricting direct vehicle access from High Street and instead providing rear-lane access, while retaining strong pedestrian and cycling connections to High Street.

The proposed indicative road linking to High Street may help relieve traffic pressure at the Whakarewa Street/High Street intersection. However, it may also increase the risk of rat-running through the PC80 area and adjacent neighbourhoods. NZTA has recommended that Council take a comprehensive, integrated planning approach to address transport outcomes across the wider area, including:

*“TDC should consider holistic view for the area, including potential for new roundabout to serve all development, widening SH60 to enable Shared Use Path (SUP) connections, changing zoning on existing residential areas on the west side of SH60, take pressure off Whakarewa St, combine side road intersections etc. Could look at aligning indicative road with an existing side road to the east to concentrate access and enable the roundabout”*

There are currently two vacant lots with access to High Street. However, both are located close to existing intersections and would not meet the intersection spacing requirements set out in the NTLDM.

### **Recommendations:**

- Establish a road connection to High Street opposite either Lowe Street or Wratt Street, potentially including a roundabout at the intersection (at developer’s cost).
- Widen the western side of High Street Road reserve from 15m to 20m wide to accommodate a shared pedestrian and cycle path. This will require the acquisition of land on a number of property frontages (at developer’s cost)
- All vehicle access to properties fronting High Street shall be from the rear.
- Pedestrian and cycle access is likely to be available to both High Street and the rear
- Further assessment is needed to identify appropriate trigger points for the above upgrades.
- Make provision for a future connection to King Edward Street through subsequent development phases.

This site specific infrastructure can be delivered as part of the development but is reliant on unresolved accesses. The site is therefore classified as Category B2 for transport.

### **Overall Infrastructure Servicing Conclusion**

T-190a, T-190b, T-190c, and T-190d are appropriately classified as **Category C**.

Water supply servicing is achievable in principle, subject to the planned Grey Street trunk main extension or developer-funded extensions along or within the site frontage. Transport servicing is also capable of being addressed through integrated planning, access rationalisation, frontage widening, rear-lane access, and developer-funded local upgrades.

However, wastewater and stormwater remain fundamental constraints. Wastewater servicing depends on the Motueka wastewater treatment plant replacement, pressure network reconfiguration and upgrades, and flood-resilient network design. Stormwater servicing is constrained by existing and modelled flooding, limited discharge capacity, overland flow

paths, localised ponding, storm tide vulnerability, and dependence on wider catchment-level solutions.

## 8.2 82 & 84 Pā Street (T-189a)



Figure 32 T-189a

### 8.2.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-189a	Residential	Māori Purpose zone	<b>Estimated Yield:</b> unknown (Kaumātua flats potential leaving balance area containing cemetery clear.)

### 8.2.2 Infrastructure Assessment (Category 'B2')

The infrastructure assessment for T-189a considers the availability, capacity, timing, and delivery pathway of infrastructure required to support redevelopment of 82 and 84 Pā Street, Motueka.

#### Water Supply

The site is currently served by a metered connection to a 50mm diameter rider main on Atkins Street. The Motueka water supply system has sufficient overall capacity to accommodate additional dwellings in principle. However, the existing rider main has limited capacity to support increased demand associated with redevelopment. Any upsizing of on-site or connecting water infrastructure required to meet service level or fire-fighting requirements would need to be funded and delivered by the developer. Water supply servicing is therefore achievable, but dependent on confirmation of local capacity and any developer-funded upgrades required to meet Council's servicing standards. This supports a Category B2 classification for water supply.

## Stormwater Servicing

The site is potentially subject to flooding of up to approximately 600mm during a 1% AEP event due to its proximity to an historic river channel.

Existing stormwater infrastructure located at the edge of the site is likely to be capable of accommodating some additional discharge, provided appropriate onsite detention is incorporated in accordance with Nelson Tasman Land Development Manual requirements.

Stormwater effects are therefore manageable, but will require careful site design, finished floor level controls, and detention measures to ensure alignment with flood hazard and level-of-service expectations.

Stormwater servicing therefore supports a Category A classification, as the effects are expected to be manageable through site-specific design, detention, flood-responsive layout, and consenting controls.

## Wastewater Servicing

The site can be serviced by the existing wastewater network. No immediate network capacity constraints have been identified for development at the anticipated scale. Standard development-related requirements, including confirmation of local connection capacity and any necessary on-site works, would be addressed at subdivision or consenting stage. Wastewater servicing therefore supports a Category B2 classification, as servicing is available in principle and any remaining requirements can be managed through standard development processes.

## Transport

Redevelopment of the site is expected to generate a modest increase in traffic. It is recommended that any required road reserve widening along Pā Street be undertaken to provide a continuous footpath, consistent with the pedestrian facilities already present on Atkins Street and Wesley Street. This work would be developer-funded.

Vehicular access can be provided via Wesley Street or Atkins Street. Additional direct access points onto Pā Street are not supported, in order to maintain road safety and minimise conflict with pedestrians and cyclists. A memorial plaque located outside 84 Pā Street will require consideration in the design and alignment of any new footpath or frontage works.

Transport servicing therefore supports a Category A classification, as access and frontage effects are manageable through detailed design, developer-funded works, and standard consent conditions.

## Overall Infrastructure Servicing Conclusion

T-189a is appropriately classified as **Category B**. The site is within an established urban area and can be serviced by existing or nearby infrastructure.

On this basis, the site has a credible infrastructure delivery pathway, provided redevelopment is supported by detailed design, developer-funded local upgrades where required, flood-responsive stormwater design, and standard subdivision or consenting controls.

## 9 Murchison Infrastructure Assessments

### AMP Capacity information for infrastructure

AMP 2024-2054 AMP						
Wastewater		Water		Stormwater		
96091 capacity available due to upgrade Hotham Street PS and new rising main	Yrs 4-5 \$732k	86175 Murchison Reticulation Upgrades to service growth	Yrs 4-6	66104 Greenfield Growth Capacity Upgrades (FDS T-020)	Yr 3 \$175K	
No specific project to extend WW network to site Developer-led solutions		86037 Murchison WTP Upgrade	Yrs 1-2			

#### 9.1 Murchison Light Industrial (LIZ) (T-234)



Figure 33 T-234 Murchison Light Industrial

##### 9.1.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-234	Rural 2	Light Industrial	New site Fairfax Street

### 9.1.2 Infrastructure assessment (Category 'B1')

The infrastructure assessment for the Murchison Fairfax Street area considers the availability, capacity, timing, and delivery pathway of infrastructure required to support proposed commercial and light industrial development. The site is classified as Category B1, reflecting a credible infrastructure delivery pathway subject to staged delivery, developer-funded local connections and upgrades, and alignment with programmed Council infrastructure and NZTA-agreed transport outcomes.

#### **Water Supply**

The site is currently connected to the Murchison water supply network. While existing capacity can support limited additional demand, future development relies on the delivery of planned water main upgrades to maintain network performance and service levels. Council's Long-Term Plan includes upgrades to the Hotham Street water main to improve capacity and support growth in Murchison. Any local connections or on-site servicing extensions required to enable development of the site would be developer-funded and delivered as part of subdivision or building works.

The 2017 Stantec report identified that, for development of all proposed lots, the DN150 Hotham Street water main needs to be upgraded to meet the town's supply demands. The upgrade would need to extend from Fairfax Street to the existing reservoir located on the hillside adjacent to Chalgrave Street. Funding is included in Council's Long-Term Plan toward this work. Funding is included in Council's Long-Term Plan toward this work.

Water supply servicing is therefore available in principle, but dependent on planned network upgrades and developer-funded local works. This supports a Category B1 classification for water supply.

#### **Wastewater Servicing**

The site is located close to existing wastewater services, and capacity at the wastewater treatment plant is available. Development will require extensions or connections to the existing wastewater network, which would need to be designed and delivered by the developer. Planned upgrades to the Hotham Street Wastewater Pump Station and associated rising main, funded through Council's Long-Term Plan, are intended to relieve pressure on the wider network and support future development across Murchison.

The 2017 Stantec report identified that the Murchison wastewater network was near capacity because of the capacity of the Waller Street Wastewater Pump Station. The Waller Street Wastewater Pump Station collects wastewater from the eastern side of the Matakita River and pumps it to the western side for treatment at the wastewater treatment plant.

The report also identified that, for future development to occur in Murchison, the Hotham Street Wastewater Pump Station needs to be upgraded and the rising main realigned to bypass the Waller Street Wastewater Pump Station. This would reduce pressure on the Waller Street Wastewater Pump Station and enable development in all deferred locations, provided potable water services are upgraded concurrently. The report noted that part of deferred zone **location MR26**, being the holiday camp at 170 Fairfax Street, is an exception because existing water and wastewater connections are already in place to service the existing cabins.

Wastewater servicing is therefore available in principle, but dependent on the Hotham Street Wastewater Pump Station and rising main upgrades, developer-funded local connections, and sequencing with water supply upgrades. This supports a Category B1 classification for wastewater servicing.

### **Stormwater Servicing**

There is no existing public stormwater infrastructure servicing the site to either the 10% or 1% AEP design standards. Overland flow paths (OLFP) have been mapped on and near the site and will need to be accommodated within the development layout. Stormwater effects are considered manageable through standard consenting processes, provided that appropriate on-site stormwater management, detention, and discharge controls are implemented. Any stormwater solutions would be developer-designed and funded.

Stormwater servicing is therefore achievable, but dependent on site-specific design and developer-funded mitigation. This supports a Category B2 classification for stormwater servicing as specific modelling and developer agreements are not in place.

### **Transport**

The land to the south and west of T-150 is zoned Light Industrial, and the land opposite is zoned Commercial. The land opposite T-234 is zoned Residential, although approximately 50% of the road frontage is occupied by the Motor Caravan Association.

The Fairfax Street carriageway is approximately 11metres wide and has a single footpath and kerb and channel on the eastern side.

Waller Street through Murchison carries State Highway 6. Pedestrian crossing points across the highway are located approximately 90m west and 110m east of Fairfax Street. The eastern zebra crossing is located outside the Murchison Area School.

The existing commercial area of Murchison is predominantly located on the southern side of SH6, although the recent opening of the new Four-Square supermarket has resulted in increased commercial activity to the northern side of the State Highway.

Further commercial and industrial activity on Fairfax Street will result in increased vehicle traffic, including heavy vehicles, and pedestrian and cycle movements on Fairfax Street and at the Fairfax Street / SH6 intersection. There is likely to be an increase in vehicle turning movements at the intersection, and in pedestrians and cyclists crossing the State Highway.

Crossroads intersections often have poor safety records due to a variety of factors including the high cognitive demand required of drivers, and of drivers occasionally not recognising the presence of the intersection and driving through without giving way. These issues can be exacerbated by large numbers of pedestrians crossing any of the intersection approaches.

The service station site, including the undeveloped area on the northern portion of the site is currently zoned Light Industrial. Should industrial activities be developed on this site in the future, it could limit the opportunity for a continuous commercial area.

### **Recommendations:**

- That the western side of Fairfax Street is urbanised, by developers, with kerb and channel and a footpath.

- That vehicle demand at the Fairfax Street / SH6 intersection is reduced by providing a link from Fairfax Street to SH6 through the proposed and existing Light Industrial zones. This will also alleviate the need for long cul-de-sacs from both Fairfax Street and SH6. The location and nature of an intersection with SH6 will need to be agreed with NZTA.
- That the SH6 / Fairfax intersection be assessed, and if necessary, upgraded to cope with increased vehicle traffic to and from Fairfax Street, and to provide improved pedestrian and cyclist crossing facilities. Note: crossing Waller Street is likely to be challenging due to the presence of right-turn bays
- Consider extending the proposed commercial zone to include the service station site, to avoid creating a fragmented zoning pattern with light industrial use in the town centre.

Transport servicing is therefore achievable, but dependent on integrated planning, developer-funded frontage works, intersection assessment, and agreement with NZTA on any connection to State Highway 6. This supports a Category B2 classification for transport.

### **Overall Infrastructure Servicing Conclusion**

The Murchison Fairfax Street area is appropriately classified as **Category B2**.

Water supply and wastewater servicing are available in principle, but both rely on planned upgrades to the Hotham Street water main, the Hotham Street Wastewater Pump Station, and the associated rising main.

Stormwater servicing is not currently provided through public infrastructure to the required design standards. However, effects are expected to be manageable through developer-funded onsite stormwater management, detention, discharge controls, and protection of mapped overland flow paths.

Transport servicing is dependent on integrated planning for Fairfax Street, State Highway 6, heavy vehicle movements, pedestrian and cycle crossings, and town centre zoning continuity. Development should be staged with appropriate frontage works, intersection assessment, and any required NZTA-agreed access or intersection upgrades.

## 9.2 Murchison Town centre (T-150)



Figure 34 T-150

### 9.2.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-150	Residential	Commercial Zone	<b>Estimated Yield:</b> 5 business lots at 1,000m <sup>2</sup> . minimum net area 200m <sup>2</sup>

### 9.2.2 Infrastructure assessment (Category 'B')

The infrastructure assessment for T-150 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed commercial zoning in the Murchison town centre.

#### Water Supply

The site is currently connected to the Council-operated Murchison water supply network. While the existing network can support some additional demand, a site-specific assessment is likely to be required at subdivision or consent stage to confirm that sufficient flow and pressure are available for the intended commercial uses, particularly where peak demand or fire-fighting requirements increase. Council-funded reticulation upgrades on Hotham Street are programmed in the Long-Term Plan; however, these works are not specifically intended to improve service levels for the Fairfax or Waller Street frontages. Any local upgrades required to support redevelopment would need to be developer funded.

Water supply servicing is available in principle, but dependent on local capacity confirmation and any required developer-funded upgrades. This supports a Category B1 classification for water supply.

## **Wastewater Servicing**

Wastewater capacity is available within the existing Murchison network. Current service connections traverse private land, and redevelopment may require a new or upgraded connection to the public main. Any such works would be the responsibility of the developer and addressed through normal subdivision or building consent processes. Wastewater servicing is therefore available in principle, subject to confirmation of connection arrangements, easements where required, and any developer-funded works needed to connect to the public network. This supports a Category B1 classification for wastewater servicing.

## **Stormwater Servicing**

The site is not currently connected to the public stormwater network. Existing stormwater current disposal likely occurring via ground soakage. Rezoning to commercial is expected to increase impervious surfaces, which would increase stormwater runoff and trigger requirements for initial soakage and detention, in accordance with the NTLDM. While additional treatment is not currently required, this may change if connection to Council infrastructure is sought in future. Alternatively, on-site soakage could remain a viable option as part of any future (re)development. No specific 1% AEP flood data is currently available for this area.

Stormwater servicing is therefore achievable, but dependent on site-specific design and developer-funded onsite management. This supports a Category B2 classification for stormwater servicing as specific modelling and developer agreements are not in place.

## **Transport**

Transport effects for this site align with those identified for the wider Fairfax Street and town centre area. Rezoning to commercial use is expected to increase vehicle movements, including service and customer traffic, along Fairfax Street and at its intersections with State Highway 6. While the surrounding road network can accommodate incremental growth, redevelopment outcomes will need to consider pedestrian safety, access configuration, and interface with the State Highway. Any frontage works, access upgrades, or intersection improvements required to support redevelopment would be developer-led, subject to Council and NZTA approval. Transport servicing is therefore achievable, but dependent on site-specific access design, pedestrian safety measures, and any developer-funded frontage or intersection works required through consenting. This supports a Category B2 classification for transport.

## **Overall Infrastructure Servicing Conclusion**

T-150 is appropriately classified as Category B2.

Servicing infrastructure is available in principle. Water supply and wastewater servicing can be provided through existing Council networks, subject to confirmation of local capacity, connection arrangements, and any required developer-funded upgrades. Stormwater servicing is less certain because the site is not currently connected to the public stormwater network, but onsite soakage and detention may provide a viable management pathway subject to detailed design and confirmation of site conditions. Transport effects are expected to be incremental and manageable through site layout, access design, pedestrian safety measures, frontage improvements, and any required Council or NZTA-approved works.

On this basis, development outcomes are influenced by layout, access, and servicing design rather than fundamental infrastructure limitations. The site has a credible infrastructure delivery

pathway, provided redevelopment is supported by site-specific assessment, standard consenting processes, and developer-funded upgrades where required.

## 10 Tapawera Infrastructure Assessments

### AMP Capital budget for Infrastructure funding

AMP 2024-2054 AMP					
Wastewater		Water		Stormwater	
96115 Tapawera WWTP Upgrade	Yr 7 \$750k	86059 Tapawera WTP Upgrade	Yrs 1-2	No projects planned	N/A

### 10.1 Tapawera (T-217)



Figure 35 T-217

#### 10.1.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-217	Light industrial	Residential	<b>Estimated Yield:</b> 4 lots.

#### 10.1.2 Infrastructure Assessment (Category 'A')

The infrastructure assessment for T-217 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed residential zoning in

Tapawera. T-217 is classified as Category A, reflecting that the infrastructure required to support the proposed zoning is available or readily serviceable, with remaining matters able to be addressed through standard detailed design, developer-led stormwater management, and consenting processes.

### **Water Supply**

The site is currently connected to the Tapawera urban water supply network. Existing capacity is sufficient for the proposed residential zoning, and no material increase in water demand is anticipated. While a site-specific assessment is likely to be required at consenting stage to confirm flow and pressure requirements, particularly for firefighting, water supply. Water supply servicing is therefore available and supports a Category A classification, subject to standard connection, design, and consent requirements.

### **Wastewater Servicing**

The site is serviced by the existing Tapawera wastewater network, and sufficient capacity is available to accommodate the anticipated development. Planned upgrades to the Tapawera water and wastewater systems will support ongoing levels of service for proposed development. Wastewater servicing therefore supports a Category A classification, as servicing is available and no material wastewater capacity constraint has been identified for the proposed zoning.

### **Stormwater Servicing**

There is no formal public stormwater infrastructure servicing the site to the 10% AEP design standard. Stormwater management will therefore need to be addressed through developer-led solutions, with discharge directed to the existing stormwater channel located at the rear of the site.

The Motueka River forms the western boundary of the property and presents a potential backflow flooding risk during 1% (and greater) AEP events. However, the site was apparently not impacted by the significant June/July 2025 flooding. In addition, minor overland flow from the Main Road may affect the site. Developer to investigate and fund stormwater solutions. Stormwater servicing is therefore manageable through site-specific design and developer-funded works. This supports a Category A classification, because stormwater effects are localised and can be addressed through standard consenting processes.

### **Transport**

No transport constraints have been identified. The site is well located in relation to the Tapawera township, with convenient access to the town centre and local schools. The proposed residential zoning is not expected to generate traffic beyond what can be readily accommodated by the existing local road network. Consideration is likely to be given to the broader demand for light industrial land within Tapawera. Transport servicing therefore supports **Category A**.

### **Overall Infrastructure servicing conclusion**

T-217 is appropriately classified as **Category A**. Water supply and wastewater servicing are available through existing Tapawera networks, with sufficient capacity identified in principle for the proposed residential zoning. No material transport constraint has been identified, and the site is well located relative to Tapawera township and local schools.

Stormwater servicing requires site-specific design because there is no formal public stormwater system servicing the site to the 10% AEP standard. However, stormwater effects are expected to be manageable through developer-led design, use of the rear stormwater channel, confirmation of overland flow paths, and appropriate consideration of Motueka River backflow effects.

On this basis, the site has an established and credible infrastructure servicing pathway, with remaining requirements able to be addressed through standard detailed design and consenting processes.

## 11 Rural Residential – Unserviced

A report prepared by Rounce Project Solutions, dated 30 August 2024, provides an expert assessment of the viability of onsite wastewater servicing and the minimum allotment sizes required to support the proposed rezoning.

The rezoning of these areas to Rural Residential – Unserviced does not impact Council's three waters infrastructure in relation to water and wastewater, as there is no anticipated demand on Council's networks. Urban stormwater services would not be provided and therefore roading access remains the only Council-provided infrastructure relevant to these areas. While traffic generation is expected to be low due to the dispersed nature of development and large lot sizes, several sites are accessed via rural roads that currently lack footpaths, lighting, or sealed shoulders. As a result, transport effects are primarily related to safety, emergency access, and connectivity rather than capacity or network performance.

Where identified, these transport effects can be mitigated through subdivision design, access layout, and site-specific mitigation measures, including limiting cul-de-sac lengths, providing alternative emergency access, and delivering walking and cycling improvements where appropriate. These matters are best addressed at subdivision or consenting stage.

## 11.1 Part of 230 College Street, Motueka (T-17b)

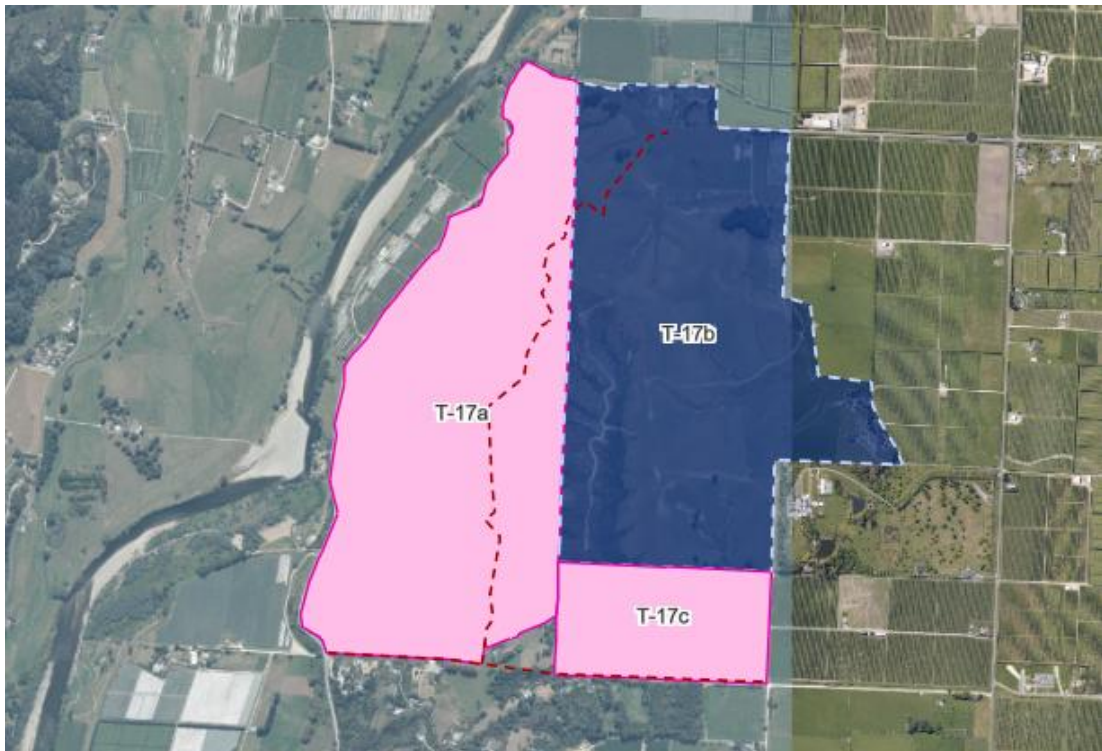


Figure 36 T-17 b

### 11.1.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-17b	Rural 1	Māori Purpose Zone	<b>Estimated Yield:</b> To be determined *
<b>*Note – the estimated yield for this site is yet to be determined and the scale of yield will have a significant impact and alter the assessment statements below.</b>			

### 11.1.2 Infrastructure Assessment (Category ‘B2’)

The infrastructure assessment for T-17b considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed Rural Residential – Unserviced / Papakāinga zoning at part of 230 College Street, Motueka.

#### Water Supply

The site is not connected to a public potable water supply. Council has no plans to extend water services to this area. A suitable on-site water supply will therefore need to be provided by the developer or future landowners, consistent with the intended Rural Residential – Unserviced/Papakāinga outcomes. Water supply servicing is therefore achievable only through onsite developer-led or landowner-led solutions. This supports a Category B2 classification for water supply.

## **Wastewater Servicing**

The site is not serviced by Council's wastewater network, and no extensions are planned. On-site wastewater treatment and disposal systems will be required and must be designed to meet relevant standards. Suitability of on-site systems has been assessed at a high level, with final design and location to be confirmed at subdivision or building consent stage. Wastewater servicing is therefore achievable through onsite systems, subject to detailed design and consenting.

## **Stormwater Servicing**

There is no public stormwater infrastructure servicing the site to the 10% AEP design standard. The site is subject to minor flooding during a 1% AEP event, primarily due to adjacent streams on the lower terrace and the potential for overtopping or failure of the nearby Motueka River stop bank. These effects are expected to be manageable through site layout, finished floor levels, and on-site stormwater management by the developer via the consenting process. Stormwater servicing is therefore achievable through site-specific design and developer-funded mitigation that does not involve Council networks. This supports a Category A classification for stormwater servicing.

## **Transport**

Transport is the primary infrastructure consideration for this site.

This section should be read in conjunction with the Transport section for T-17a and c.

The site is approximately 3.3 km from the high school and 3.8 km from High Street. These are distances that are suitable for walking or cycling, particularly for e-bike users. However, College Street presents significant transport safety constraints:

- The carriageway is approximately 6m wide within a 15m wide road reserve (widening to 17–20 metres east of Chamberlain Street) and is lined with power poles on the northern side.
- There is currently no pedestrian or cycling facilities, nor street lighting, which poses a substantial safety risk, especially for pedestrians and cyclists traveling in low light or after dark.
- College Street is a high-speed road in this area, and part of the site lies on the northern side of the road. Development that generates pedestrian movement across College Street would increase the risk to pedestrian safety.
- The College Street / Chamberlain Street intersection has had four minor injury crashes recorded in the past five years. This intersection has been assessed as having a Medium High collective risk, and a High personal risk using the methodology in NZTA's High Risk Intersection Guide.

Development of this site could result in a long cul-de-sac serving multiple dwellings with no alternative access. This concentrates access to one location, and limits emergency access

The potential for high pedestrian demand is particularly relevant across College Street, where the Papakāinga block (T-17b) spans both the northern and southern sides of the road. However, College Street currently lacks pedestrian and cycling facilities and may pose safety risks due to speed and traffic volume.

## Recommendations

- Appropriate pedestrian and cycling infrastructure are provided, linking the site to Whakarewa Street and Queen Victoria Street (at developer's cost).
- Land is acquired, if required, to accommodate these facilities and ensure sufficient road shoulders.
- Speed reduction measures and safe pedestrian crossing facilities are implemented along College Street, particularly if development proceeds on both sides of the road.
- That safety improvements such as improved advance warning on Chamberlain Street of the intersection with College Street, oversize STOP signs, and/or a splitter island on the southern approach be installed.
- That development of the site includes alternative access to Hursthouse Street.

Transport servicing is therefore achievable, but dependent on developer-led access design, pedestrian and cycling infrastructure, safe crossing provision, speed management, intersection safety improvements, and alternative access arrangements. This supports a Category B2 classification for transport.

## Overall Infrastructure Servicing Conclusion

T-17b is appropriately classified as **Category B2**.

The site is intended to be serviced as Rural Residential – Unserviced / Papakāinga land. Council water and wastewater services are not available and are not planned to be extended. Servicing will therefore rely on onsite water supply and onsite wastewater systems, with final design confirmed at subdivision or building consent stage.

Stormwater effects are expected to be manageable through site-specific design, finished floor level controls, onsite stormwater management, and consideration of adjacent streams and Motueka River stopbank scenarios.

Transport is the main infrastructure dependency. College Street currently lacks pedestrian and cycling facilities and street lighting, has high-speed traffic conditions, and includes safety issues at the College Street / Chamberlain Street intersection. Development will therefore need to provide appropriate access, pedestrian and cycling infrastructure, crossing facilities, speed management, intersection safety improvements, and alternative access to Hursthouse Street.

On this basis, the site has a credible infrastructure delivery pathway, provided development is supported by onsite servicing, transport mitigation, safe access design, and standard subdivision or consenting controls.

## 11.2 (Rural Residential unserviced) Motueka sites (T-17a, c, d, T-213, T-205)

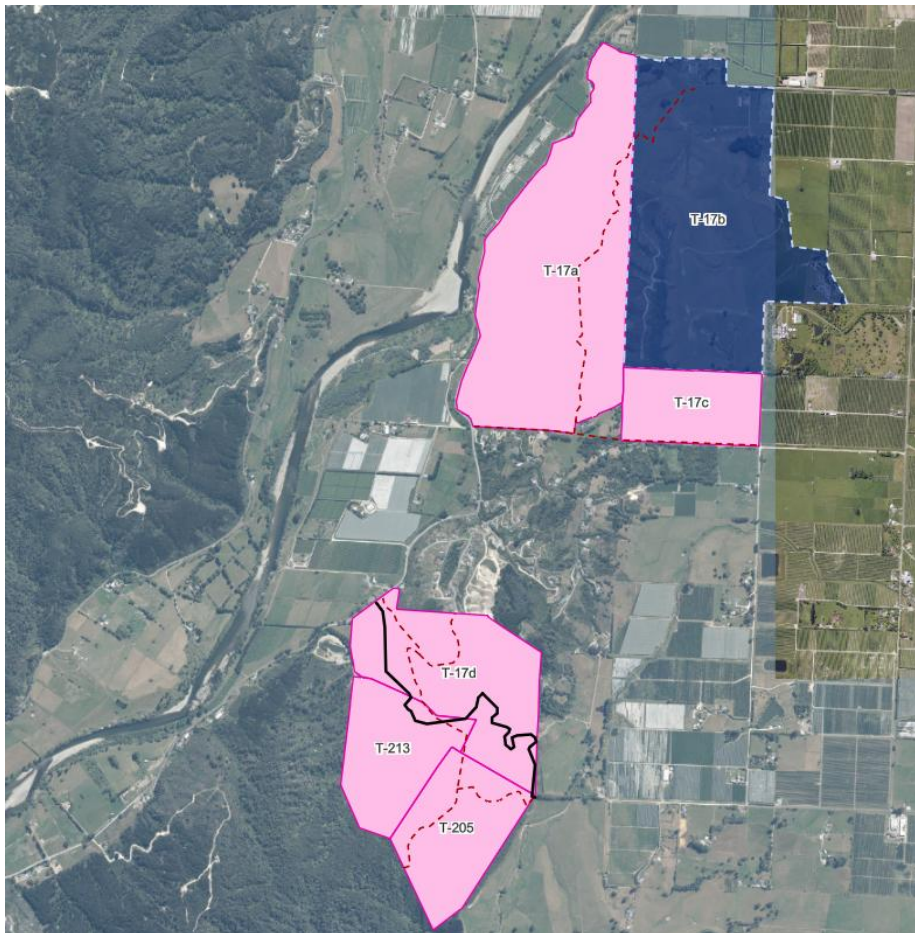


Figure 37 T-17a c, d, T-213, T-205 (Indicative Road shown as black line, Indicative walkway shown as red dashed line)

### 11.2.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-17a	Rural 1	Rural residential	<b>Estimated Yield:</b> T-17a - 43 T-17c - 20 T-17d - 11 T-213 - 6 T-205 - 7 <b>Total estimated yield: 87</b>
T-17c	Rural 1	Rural residential	
T-17d	Rural 2	Rural residential	
T-213	Rural 2	Rural residential	
T-205	Rural 2	Rural residential	

### 11.2.2 Infrastructure assessment (Category 'B2')

The infrastructure assessment for T-17a, T-17c, T-17d, T-213 and T-205 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed Rural Residential – Unserviced zoning in the Motueka Valley / College Street area.

#### **Water Supply**

The sites are not connected to a public potable water supply, and Council has no plans to extend water services to this area. A suitable on-site water supply will therefore need to be provided by the developer or future landowners, consistent with the proposed Rural Residential – Unserviced zoning. Water supply servicing is therefore achievable only through onsite developer-led or landowner-led solutions.

#### **Wastewater Servicing**

The sites are not serviced by Council's wastewater network, and no extensions are planned. On-site wastewater treatment and disposal systems will be required, must be designed, and located to meet relevant standards. These matters will be addressed at subdivision and building consent stage. Wastewater servicing is therefore achievable through onsite systems, subject to detailed design and consenting.

#### **Stormwater Servicing**

The sites are not serviced by stormwater infrastructure designed for either the 10% or 1% AEP events. While they are located outside the Motueka River floodplain, minor to moderate OLFPs have been identified, with some depths of up to approximately 1 metre during a 1% AEP event. These flow paths will need to be accommodated by the developer through site layout, finished floor levels, and on-site stormwater management measures implemented during the consenting process. Stormwater servicing is therefore achievable through site-specific design and developer-funded mitigation that does not involve Council networks. This supports an A classification for stormwater.

#### **Transport**

This section should be read in conjunction with the Transport section for T-17b. Transport considerations are a key factor for this location. The development could result in a reasonably substantial community, with its nearest point located about 4.5 km from High Street, Motueka. The primary routes into town consist of high-speed rural roads without sealed shoulders, footpaths, or dedicated cycle infrastructure. Although the roads are flat and straight, making them potentially suitable for confident cyclists or e-bike users, they are not currently safe or accessible for general active transport users.

Improving connectivity and safety in this area should be a priority. Consideration should be given to identifying suitable routes for a dedicated cycleway between the site and Motueka, particularly to connect with schools and retail services. Motueka Valley Highway is constrained between the development sites and College Street, with steep banks above and below the road on the eastern and western sides respectively. This is likely to make provision of pedestrian and cycle facilities challenging.

In terms of road layout, it is recommended that indicative road connections be planned to provide alternative access, particularly in case Motueka Valley Highway becomes impassable due to fire or flooding. Avoiding long cul-de-sacs and ensuring emergency access is critical.

The topography between the plan changes areas and the roads on the eastern side of the hill is very steep, and providing access is likely to be difficult.

While connecting T-17a and T-17d is desirable, the existing development in the Rural Residential zoning between the two plan change areas includes multiple privately owned lots with homes and other buildings. This presents significant challenges in providing access.

Speed management on College Street should also be addressed. This could include a reduced speed limit and design treatments such as urbanisation or traffic calming, ideally implemented over a longer stretch and where development occurs on both sides of the road. Care should be taken to avoid introducing sudden hazards at the end of long straight high-speed sections. Innovative measures are likely to be required to signal a transition into a residential environment and ensure road users adjust their speed accordingly.

Hursthouse Street is currently unsealed. There are likely to be dust issues with additional traffic.

### **Recommendation**

To support safe and sustainable development in this area, the following actions are recommended:

- **Cycle connectivity:** Investigate and identify a suitable route for a dedicated cycle path linking the site to Motueka, particularly the shopping precinct and schools, to encourage active transport.
- **Speed management on College Street:** Introduce measures to improve road safety and reduce vehicle speeds, which may include:
  - A reduced speed limit.
  - Urbanisation treatments, particularly effective where development occurs on both sides of the road over a longer stretch.
  - Traffic calming measures, with careful design to avoid creating hazards—especially at the end of a long, straight, high-speed section.
  - Innovative solutions that clearly signal a transition into a residential or community-focused environment and encourage more cautious driving behaviour.
- **Alternative Access:** Provide alternative access to Hursthouse Street and / or McBrydie Road. This should provide emergency vehicle access as a minimum.
- **Hursthouse Street:** Seal the Hursthouse Street access to T-17a.

This developer-led developments support a Category B2 classification

### **Overall Infrastructure Servicing Conclusion**

T-17a, T-17c, T-17d, T-213 and T-205 are appropriately classified as **Category B2**.

The sites are intended to be serviced as Rural Residential – Unserviced land. Council water and wastewater services are not available and are not planned to be extended.

Stormwater effects are expected to be manageable through site-specific design, overland flow path protection, finished floor level controls, and onsite stormwater management.

Transport is the main infrastructure dependency. The sites are located some distance from Motueka township and rely on high-speed rural roads that currently lack footpaths, sealed shoulders, dedicated cycle infrastructure, and in some locations suitable active transport connections. Development will need to provide safe access, emergency access, active transport improvements where practicable, speed management, and mitigation for local road effects, including dust on Hursthouse Street.

On this basis, the sites have a credible infrastructure delivery pathway, provided development is supported by onsite servicing, subdivision-scale stormwater design, safe access arrangements, alternative and emergency access, and developer-led transport mitigation.

### 11.3 (Rural Residential unserviced) St Arnaud (T-181a and T-219a)

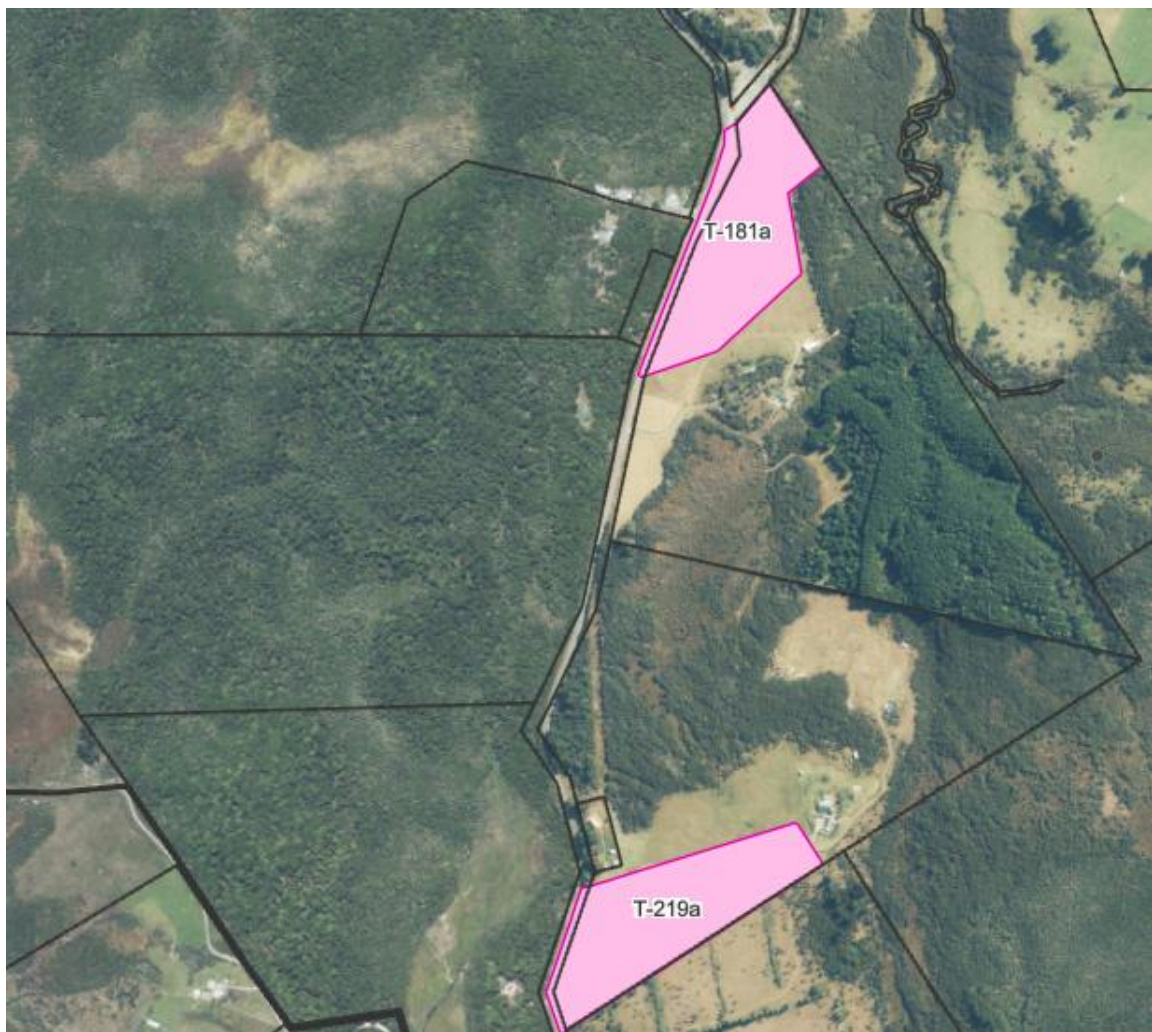


Figure 38 T-181a, T-219a (St Arnaud)

### 11.3.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-181a	Rural 2	Rural Residential Unserved	<b>Estimated Yield: 19</b>
T-219a	Rural 2	Rural Residential Unserved	

### 11.3.2 Infrastructure assessment (Category ‘B’)

The infrastructure assessment for T-181a and T-219a considers the availability, capacity, timing, and delivery pathway of infrastructure required to support Rural Residential – Unserved development near St Arnaud

#### **Water Supply**

The sites are not connected to the public water supply network, and Council has no plans to extend water services to this area. Any water supply required to support Rural Residential – Unserved development will need to be provided through on-site solutions by the developer or future landowners.

#### **Wastewater Servicing**

The sites are not serviced by Council’s wastewater network, and no extensions are planned. On-site wastewater treatment and disposal systems will be required and must be designed, located, and mitigated to meet relevant standards. These matters will be addressed at subdivision and building consent stage.

#### **Stormwater Servicing**

The sites are not serviced by public stormwater infrastructure designed to either the 10% or 1% AEP event standards. On-site stormwater management solutions will therefore be required. While no detailed flood modelling has been undertaken, the sites are not expected to be subject to significant flood constraints during major storm events. Further investigation and stormwater design will be the responsibility of the developer via the consenting process. Stormwater servicing is therefore achievable through site-specific design and developer-funded mitigation that does not involve Council networks. This supports an A classification for stormwater.

#### **Transport**

Transport is the primary infrastructure consideration for these sites. A reduction in development density is supported; however, this approach results in two small, relatively disconnected rural residential communities. For safety and traffic management reasons, a single vehicle access point from Korere-Tophouse Road is recommended for each site, rather than multiple accesses onto the high-speed corridor.

Intersection locations will require careful consideration to ensure adequate sight distances consistent with the recently approved 80 km/h speed limit, which requires approximately

215 metres of clear sight distance. Identifying a suitable intersection location, particularly for the southern site, is likely to be challenging and will need to be resolved at subdivision stage.

Provision of walking and cycling connections between the two rural residential sites is recommended to improve local accessibility and internal connectivity. The sites are approximately 5 km from St Arnaud, a distance that is considered viable for confident cyclists and e-bike users. To support this outcome and improve safety, shoulder widening on Korere-Tophouse Road is recommended where practicable. The reliance on developer-led delivery supports a Category B2 classification.

Overall, while transport constraints do not preclude, development, outcomes are dependent on careful access design, intersection location, and appropriate mitigation measures being implemented through subdivision and consenting processes.

### **Overall Infrastructure Servicing Conclusion**

T-181a and T-219a are appropriately classified as **Category B2**.

The sites are proposed to be serviced as Rural Residential – Unserviced land. Council reticulated water and wastewater services are not available and are not planned to be extended. Servicing will therefore rely on onsite water supply, onsite wastewater treatment and disposal, and onsite stormwater management, with final design confirmed through subdivision and building consent processes.

The main infrastructure dependency is transport. Development will need to provide safe and consolidated access to Korere-Tophouse Road, confirm suitable intersection locations and sight distances, support walking and cycling connectivity between the two sites where practicable, and provide shoulder widening or other mitigation where required.

On this basis, the sites have a credible infrastructure delivery pathway, provided development is supported by onsite servicing, subdivision-stage access design, and developer-led transport mitigation.

## 11.4 Tākaka T-182 (Light Industrial), T-140a (Rural residential unserviced)

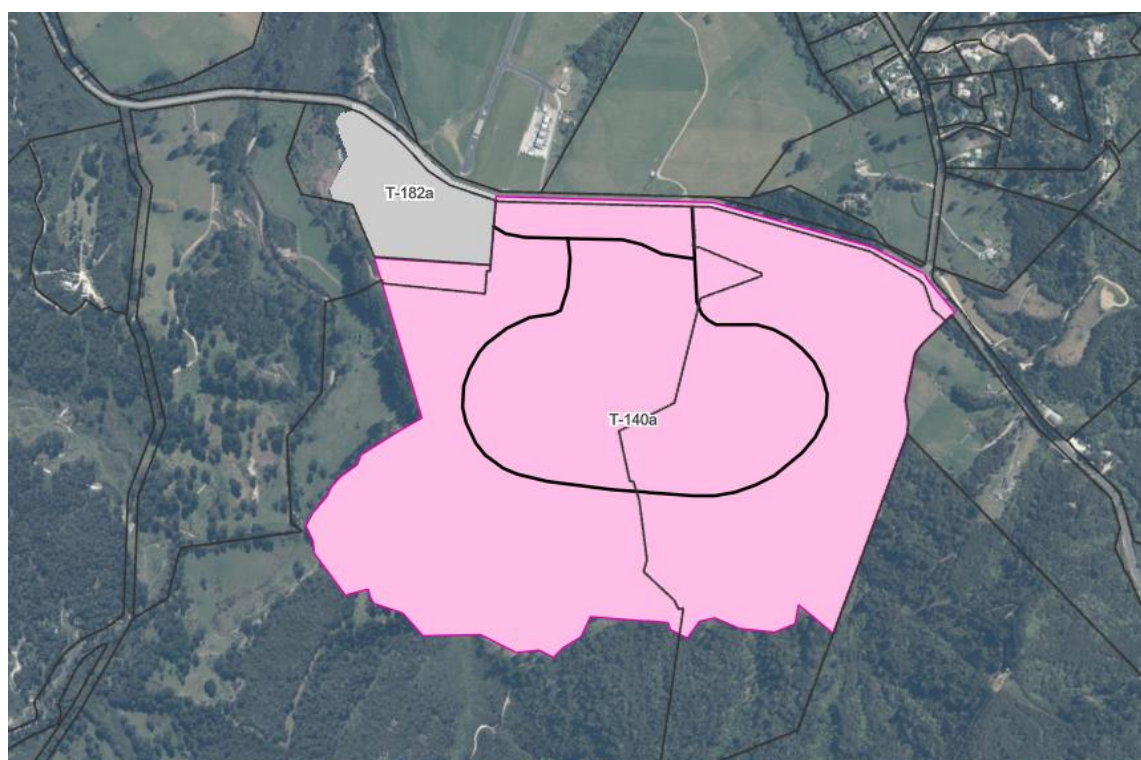


Figure 39 T-182a and T-140a

### 11.4.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-182	Rural 2	Light industrial	Light industrial with a minimum lot size 500m <sup>2</sup> <b>Estimated Yield: 30 lots</b>
T-140a	Rural 2	Rural residential unserviced	Minimum lot size of 5000m <sup>2</sup> <b>Estimated Yield: 42</b>

### 11.4.2 Infrastructure assessment (Category 'B2')

The infrastructure assessment for T-182 and T-140a considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed Light Industrial and Rural Residential – Unserviced zoning near State Highway 60.

#### Water Supply

Neither site is currently connected to a public water supply network, and Council has no plans to extend water services to this location. Any water supply required to support development will need to be provided by the developer or landowner through on site or privately mitigated systems. Water supply constraints are therefore a delivery matter.

#### Wastewater Servicing

The sites are not serviced by Council's wastewater network, and no extensions are planned. Development will require on-site wastewater treatment and disposal systems, which must be appropriately designed, located, and mitigated to meet relevant standards. These requirements will be addressed through subdivision and consenting processes.

### **Stormwater Servicing**

The sites are unserviced for both the 10% and 1% AEP stormwater events. Existing OLFPs and drainage features traverse the land and must be incorporated into site layout and design. Stormwater management will be developer-led and addressed through site specific solutions, including detention, flow management, and protection of OLFPs. While stormwater effects are known and manageable through design, they represent a controlling consideration for layout and staging.

Stormwater servicing is therefore achievable through site-specific design and developer-funded mitigation that does not involve Council networks. This supports an A classification for stormwater.

### **Transport**

Transport access represents the primary infrastructure constraint for these sites. NZTA has raised significant concerns regarding heavy vehicle access from the proposed Light Industrial land onto State Highway 60, due to limited sight distances and the high-speed nature of the highway corridor. Intersection spacing, sight distance requirements, and topographical constraints substantially limit access options.

A roundabout at the Rangihaeata Road intersection has been ruled out in consultation with NZTA due to poor geometry, inadequate sight lines, and the operating speed environment. NZTA guidance requires substantial intersection separation and safe intersection sight distances, which can be achieved only in limited locations within the site.

To address these constraints, development will require:

- a single, safe, and compliant access arrangement approved by NZTA,
- consolidation of access points to avoid multiple intersections onto State Highway 60,
- an indicative internal road layout demonstrating compliant access geometry and sight lines, and
- careful coordination between the Light Industrial and Rural Residential components to avoid conflicting access demands.

Cycling connectivity is also constrained, given the absence of cycling facilities on State Highway 60 and limitations associated with the nearby bridge. These factors do not preclude development but require a conservative and highly controlled access strategy. The reliance on developer-led delivery supports a Category B2 classification.

### **Overall Infrastructure Servicing Conclusion**

T-182 and T-140a are appropriately classified as Category B2.

Three waters servicing will rely largely on developer-led, site-specific solutions. Water supply and wastewater servicing will need to be provided through onsite or privately managed systems, as Council reticulated services are not available and are not planned to be

extended. Stormwater servicing will also be developer-led, with site layout and staging controlled by existing overland flow paths, drainage features, detention requirements, and discharge management.

Transport access is the dominant infrastructure dependency. Development cannot proceed on the assumption that access to State Highway 60 is straightforward. A safe, consolidated, and compliant access arrangement must be confirmed with NZTA, supported by an internal road layout that demonstrates acceptable geometry, sight distance, intersection spacing, and coordination between the Light Industrial and Rural Residential components.

On this basis, the sites have a credible infrastructure delivery pathway, provided development is contingent on NZTA-approved access arrangements, developer-funded onsite servicing, stormwater mitigation, and implementation of access and safety controls before development occurs.

### 11.5.65 Higgins Road, Brightwater (T-198a)



Figure 40 T-198a

#### 11.5.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-198a	Rural 1	Rural residential unserviced	Minimum lot size of 5000m <sup>2</sup> <b>Estimated Yield: 14</b>

#### 11.5.2 Infrastructure assessment (Category 'B2')

The infrastructure assessment for T-198a considers the availability, capacity, timing, and delivery pathway of infrastructure required to support Rural Residential – Unserved development at 65 Higgins Road, Brightwater.

#### Water Supply

The site is not connected to the public water supply network, and Council has no plans to extend water services to this area. Any water supply required to support development will therefore need to be provided by the developer or future landowners through on-site or privately mitigated systems. Water supply servicing is therefore achievable only through onsite or privately managed solutions.

### **Wastewater Servicing**

The site is not serviced by Council's wastewater network, and no extensions are planned. Development will rely on on-site wastewater treatment and disposal systems, which must be appropriately designed, located, and mitigated to meet relevant standards. Suitability of on-site systems will be addressed at subdivision and building consent stage. Wastewater servicing is therefore achievable through onsite systems, subject to detailed design and consenting.

### **Stormwater Servicing**

The site is unserviced for the 10% AEP storm event and lies partly within a wider floodplain. Minor flooding is anticipated across lower areas of the site during larger storm events, while higher areas are subject to additional considerations related to the presence of an on-site dam and potential dam-failure risk. Stormwater management solutions, including detention, flow management, and appropriate finished floor levels, will need to be investigated, designed, and funded by the developer via the consenting process..

Stormwater servicing is therefore achievable through site-specific design and developer-funded mitigation that does not involve Council networks. This supports an A classification for stormwater.

### **Transport**

Transport access represents the primary infrastructure constraint for this site. The existing access does not meet the required separation distance from Telenius Road under the current 80 km/h speed environment and also crosses the Great Taste Trail. Access upgrades will be required, including a safe and compliant crossing of the Great Taste Trail.

Development of the site is expected to increase traffic volumes on Higgins Road by approximately 20 percent. While this increase is not material in capacity terms, further development beyond the one-lane bridge to the northeast of the site may trigger the need for a bridge assessment or upgrading to maintain safety and resilience.

To manage these effects, it is recommended that:

- the road reserve be widened at subdivision stage to future-proof access for potential further development,
- the Great Taste Trail between the site and Brightwater be upgraded (noting this is not currently included in the LTP), and
- an assessment of the operational and structural performance of the one-lane bridge be undertaken to confirm suitability for increased traffic.

These matters are appropriately addressed through subdivision design, access approvals, and developer-led mitigation. The reliance on developer-led delivery supports a Category B2 classification.

### **Overall Infrastructure Servicing Conclusion**

T-198a is appropriately classified as **Category B2**.

The site is proposed to be serviced as Rural Residential – Unserviced land. Council reticulated water and wastewater services are not available and are not planned to be extended. Servicing will therefore rely on onsite or privately managed water supply and onsite wastewater treatment and disposal systems.

Stormwater servicing requires site-specific investigation and developer-led design because the site is unserviced for the 10% AEP storm event, lies partly within a wider floodplain, and includes dam-related considerations that may affect layout, finished floor levels, and mitigation requirements.

Transport access is the principal infrastructure dependency. The existing access arrangement does not meet separation requirements from Telenius Road and crosses the Great Taste Trail. Development will need to provide a safe access design, a compliant Great Taste Trail crossing, road reserve widening, and assessment of the one-lane bridge northeast of the site.

On this basis, the site has a credible infrastructure delivery pathway, provided development is supported by onsite servicing, stormwater and flood-responsive design, access redesign, Great Taste Trail interface treatment, bridge assessment, and developer-funded mitigation delivered through subdivision and consenting processes.

## 11.6 Stringer Road (T-226)



*Figure 41 T-226 Stringer Road (Indicative Road shown as black line and indicative walkway shown as red dashed line)*

### 11.6.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-226	Rural 2	Māori Purpose zone unserviced	<b>Estimated Yield: Unknown*</b>
*Note – the estimated yield for this site is yet to be determined and the scale of yield will have an impact and could alter the assessment statements below.			

### 11.6.2 Infrastructure assessment (Category ‘A’)

The infrastructure assessment for T-226 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed Rural Residential / Māori Purpose unserviced outcome at Stringer Road.

#### Water Supply

The site is not connected to a Council-provided potable water supply, and there are no plans to extend public water infrastructure to this location. Water servicing will therefore rely on developer- or landowner-provided onsite or privately mitigated supply solutions. While this places responsibility for service provision on the developer, it does not create demand on Council’s networks and is consistent with Rural Residential / Māori Purpose unserviced outcome.

#### Wastewater Servicing

The site is not connected to Council’s wastewater network, and no public wastewater extensions are planned. All wastewater will be managed through onsite treatment and disposal systems designed, located, and maintained to meet relevant regulatory and performance standards. These matters are appropriately addressed at subdivision and building consent stage.

#### Stormwater Servicing

The site is unserviced for stormwater and contains a significant mapped OLFP. Stormwater management will therefore need to be fully developer-designed and integrated into site layout, including protection of OLFP, detention, and controlled discharge through standard subdivision design and consenting processes.

Stormwater servicing is therefore achievable through site-specific design and developer-funded mitigation that does not involve Council networks. This supports an A classification for stormwater.

#### Transport

This site is approximately 5 to 6km from Māpua Village. SH60 between the site and Māpua turn off has a 100km/h speed limit, and no provision for pedestrians and cyclists. A bus service runs along SH60 between Motueka and Richmond. The option of providing bus stops near the existing rural residential developments has been considered by TDC staff, but discounted due to safety issues for bus passengers crossing the State Highway, and for buses stopping alongside and re-entering the live high speed traffic lane.

There is an unsealed pedestrian / cycle path running past the site on Stringer Road. This path runs from the existing Rural Residential development at the western end of Stringer Road, through an underpass beneath SH60, and connects to Westdale Road. There is little pedestrian or cycle infrastructure beyond this. The combination of distance and lack of alternatives is likely to result in an increased reliance on private cars to access most facilities and activities.

The site is comparatively long and narrow. This could result in a layout with a long cul-de-sac. Access to both Stringer Road and Redmill Road would address this.

The speed limit is 100km/h on both Stringer Road and SH60 adjacent to the site. There has been one non-injury crash recorded at the intersection of Stringer Road and State Highway 60. The intersection appears to be operating safely.

**Recommendation:**

- That vehicle connections are provided to both Stringer and Redmill Roads. Transport servicing therefore supports a Category A classification, provided subdivision layout avoids unnecessary reliance on a single long cul-de-sac and provides suitable connections to Stringer Road and Redmill Road.
- 

**Overall Infrastructure Servicing Conclusion**

T-226 is appropriately classified as **Category A**.

The site places no demand on Council's reticulated water, wastewater, or stormwater networks. Water supply, wastewater servicing, and stormwater management will be provided through onsite or privately managed developer-led solutions, consistent with the Rural Residential / Māori Purpose unserviced zoning outcome.

Stormwater design will need to protect the significant mapped overland flow path and manage runoff through onsite detention, flow management, and controlled discharge. These matters are design and consenting requirements rather than Council network delivery dependencies.

Transport access is available, and the Stringer Road / State Highway 60 intersection appears to be operating safely based on the information available. The site's distance from Māpua Village and limited active transport alternatives are likely to result in private vehicle reliance, but this does not create a material infrastructure delivery constraint. Subdivision design should provide vehicle connections to both Stringer Road and Redmill Road where practicable to improve connectivity and resilience.

On this basis, the site is infrastructure-neutral from a Council servicing perspective, with remaining matters able to be addressed through onsite servicing, subdivision layout, and standard consenting processes.

## 12 Māpua Infrastructure Assessments

### 12.1 Māpua

#### AMP Capital budget for infrastructure

AMP 2024-2054							
Wastewater		Water		Stormwater			Transport
96007 New Stafford Drive Pump Station	Yr 3-5 \$1.3m	86027 Install additional water main capacity under Māpua estuary to Rabbit Island	Yr 10-20	66022 Secondary Flowpath Improvements	Yr 1-3 \$0.6m Y4-10 \$2.1m	(517620024) Seaton Valley Road Improvements (Stage 1)	Yr 7-8 \$2.67m
96011 Ruby Bay Pump Station Storage Upgrade	Yr 3-5 \$732k	86172 Māpua - Reticulation Upgrades to service Growth	Yr 5-8 \$4.95m	66031 Stormwater Quality Improvements	Yr 1-3 \$0.3m Yr4-10 \$2.0m	0517620025 Seaton Valley Road Improvements (Stage 2)	Yr 11-20 \$5.5m
96063 New Seaton Valley Road Pump Station & Rising Main	Yr 6-7 \$3m	86173 Māpua - Korepo Road Renewal	Yr 2-4 \$500k	66039 Minor Stormwater Improvements	Yr 1-3 0.8m Y4-10 \$6.7m	0517620026 Māpua Primary Cycle Routes	Yr 11-20 \$3.523m
96073 Higgs pump station connection to Aranui Road	Yr 2-3 \$550k	86174 Māpua - Brabant Drive Pipe Renewal Māpua -	Yr 5-7 \$1.07m	66095 Seaton Valley Integrated Stormwater Solution	Yr 6-8 \$4m	Māpua Drive cycle routes (cycle routes on Māpua Drive) (beyond 2034)	TBC

		Brabant Drive Pipe Renewal		(required to service DAs 8, 11, 27)			
96013 New Rising Main Across Māpua Channel- Directional drill a new 315 ID HDPE pipe from Māpua wharf area to Rabbit Island	Yr 10-20 \$1.98 m	86185 Māpua Wharf Booster Pump Station Māpua Wharf Booster Pump Station	Yr 3 \$75k	66108 Māpua Seaton Valley Stormwater Land Purchase	Yr 1 \$1.0 Yr 8-9 \$3.5		
		86186 Māpua Ruby Bay Treatment Plant Pump Upgrades Māpua Ruby Bay Treatment Plant Pump Upgrade	Yr 1-2 \$325k				

## 12.2 Māpua Infrastructure - Overall comments

The LTP capital budgets include funding for a range of three waters infrastructure upgrade projects to service the need for increased infrastructure (three waters) capacity and new development areas in Māpua. This is expected to improve servicing and capacity in parts of the network.

### **Infrastructure for Māpua Water supply**

The Māpua water supply comprises Council-owned and operated water supply assets and water mains and forms part of the wider Waimea water supply system. Water is sourced from seven groundwater bores along the Waimea River stopbank and treated at the Richmond Water Treatment Plants, including the Lower Queen Street facility, before being conveyed to Māpua and Ruby Bay via trunk mains across Rabbit Island.

Water treatment includes ultraviolet (UV) disinfection and inline chlorination, with pH correction applied prior to distribution. The Māpua/Ruby Bay supply serves a mix of urban, rural, and limited commercial connections, with approximately 953 metered connections, 239 restricted rural connections, and an estimated population of around 2,238 (Water Activity Management Plan 2024–2054).

To support ongoing growth and maintain levels of service in Māpua, the following water supply projects are identified in the 2024–2054 Activity Management Plan:

- Pipeline upgrades across the local reticulation network
- Completion of the Aranui–Stafford trunk main
- Completion of the Rabbit Island and Best Island trunk mains

### **Infrastructure for Māpua wastewater**

Wastewater servicing in Māpua is provided through Council-owned, operated, and maintained wastewater infrastructure. Flows from the township are conveyed via a pumped system across the Māpua Channel to the Bell Island Wastewater Treatment Plant (WWTP) operated by NRSBU.

Wastewater is conveyed from the Māpua wharf pump station across the Māpua Channel and Rabbit Island via a rising main pipeline before connecting to the Bell Island WWTP. The existing rising main beneath the Māpua Channel comprises a 250 mm diameter polyethylene (PE) pipe. A second PE pipeline also crosses the channel but is currently unused. Beyond the channel crossing, wastewater is conveyed to the Bell Island WWTP via a 355 mm diameter PE rising main that was installed in 2010.

A further parallel rising main across the Māpua Channel has been identified in Council planning as a longer-term requirement to improve capacity and resilience and to support future growth in the Māpua and Ruby Bay areas. This additional pipeline is currently programmed beyond the first 10 years of the planning horizon.



Figure 43 Existing Māpua Wastewater Network

### Nelson Regional Sewerage Business Unit

Current contracted flow rates to Bell Island WWTP from Māpua and Richmond WW Networks. Current Flow rate at Māpua is 40L/s

Catchment	TDC peak network inflow		
	2025/26 allocation	2035/36 allocation	2050/51 allocation
Waimea (Beach Rd PS)	680 L/s	680 L/s	750 L/s
Mapua/Ruby Bay	140 L/s	140 L/s	140 L/s
Total	820 L/s	820 L/s	890 L/s



Figure 44 Māpua Drive wastewater

### Infrastructure for Māpua stormwater

The 2024–2034 Long-Term Plan and relevant 2024–2054 Activity Management Plans provide for capital projects to support stormwater improvements in the Māpua/Ruby Bay/Tasman Urban Drainage Areas (UDAs). These projects are set out in the table at the beginning of Section 2.1. The future works will build upon the existing stormwater infrastructure within the Māpua and Ruby Bay UDA, as shown in the figure below.



Figure 45 Existing Māpua and Ruby Bay UDA and Stormwater network

### Urban Drainage Area secondary flowpaths

Stormwater overland flow paths (OLFPs) are locations where stormwater flows towards the formal drainage system or where flow occurs when the primary, typically piped, system is full or blocked. Since most of the primary network has a design capacity of less than 10% AEP, or 1 in 10-year capacity without climate change, these flow paths are likely to be used with increasing frequency. While these flow paths have been indicatively mapped by GIS using LiDAR levels, they have not been fully field inspected and are not yet a formal part of TDC maintained infrastructure. Recent water services legislation and associated implementation arrangements may increase Council responsibilities for urban overland flow paths. The implications for Māpua should be confirmed as part of future stormwater planning.

The unverified mapping for Māpua is shown in the first figure below and for Ruby Bay in the second figure below.

### Seaton Valley Detention-Wetland (SVDW) Project

The Seaton Valley area, potentially including drainage from Higgs Road, is seen as the major area of stormwater flow increase for Māpua village due to forecast coastal inundation of the existing lower-lying land restricting further long-term development. Therefore, a major project has been developed to manage the expected requirement for detention and treatment of stormwater before discharge into the Seaton Valley Stream above Stafford Drive. Natural and artificial wetlands are expected to be incorporated into the design.

Planning for the future SVDW has been progressed sufficiently to support the Māpua Master Plan and PC81 processes. Further detailed design work to be completed includes:

- Long term groundwater level predictions considering SLR and vertical land movement;
- The potential impact of increased salinity on wetland vegetation;
- The need for, timelines and functioning of, tide gates on Seaton Valley Stream at Toru Street and/or Stafford Drive;
- Review of final landform and resultant central detention volumes vs potential on-site detention or at least minimal recharge requirements to the NTLDM.
- Delineation of the “detention”, “treatment” and “natural” components of the overall detention-wetland area
- Potential rerouting of Seaton Valley Stream through the future area.



Figure 46 Māpua modelled OLFP (from LiDAR)



Figure 47 Ruby Bay modelled OLFP

### **Transport for Māpua – Overall**

The population of Māpua is expected to almost double because of the proposed changes in Plan Change 81 plus consented but as yet undeveloped land. The bulk of this growth is expected to occur in the area bound by the edge of the existing residential area off Lionel Place and Jessie Street, Aranui Road, Higgs Road, and Māpua Drive, and Seaton Valley.

The 2023 census recorded that 34% of workers who lived in Māpua worked from home, plus another 9% walked or cycled to work. This compares with 16% of workers in Richmond who worked from home, plus another 9% who bused, walked, or cycled. It should be noted that the 2023 census was before the eBus service started in Māpua.

These numbers reflect the current demographic of Māpua, which possibly includes a higher than typical proportion of people employed in work which can reasonably readily be done from home. There is a risk that if the demographic of Māpua changes, including with a higher proportion of “affordable” housing, then the proportion of people able to work from home is likely to become more typical, resulting in more people having to drive to work.

The planned growth, including a possible change in the demographic could result in a more than doubling of traffic volumes on Māpua Drive, including the intersection with SH60.

### **Seaton Valley Outline Spatial Plan (OSP)**

An Outline Spatial Plan (OSP) has been developed for the wider Seaton Valley and other areas. The OSP area includes T-250, T-11, T-42, T-33a/b, and T-245 plan change areas, and is bisected by Seaton Valley Road.

The OSP includes:

- Standard and Medium Density Residential zones, plus
- Recreation reserves
  - A large reserve, adjacent to Seaton Valley Road will include sports fields, and is likely to host visiting teams
- Pedestrian and cycle links through the area, with connections to Seaton Valley Road, Stafford Drive, Māpua Drive, and Pomona Road
- Vehicle connections to Seaton Valley Road, Catherine Road, Les Wakefield Drive, Māpua Drive (west of Higgs Road), and one or both of either Pomona Road or Stafford Drive.

This combination of development areas is likely to result in a significant increase in traffic and pedestrian and cycle numbers on most of the affected roads in the area. The inclusion of sports fields is likely to result in significant pedestrian, cycle, and vehicle numbers on weekends, and to a lesser extent on weekday practice nights.

### **Vehicle Capacity**

Seaton Valley Road and Māpua Drive are likely to carry significant additional traffic from the Seaton Valley area and other growth areas in Māpua. These 2 lane roads are expected to have adequate mid-block capacity for the increased vehicle traffic.

The State Highway 60 / Māpua Drive, Seaton Valley Road / Māpua Drive, and Stafford Drive / Māpua Drive intersections are likely to come under pressure from this growth.

Council is working in collaboration with NZTA to identify options to address the crash rate at the SH60 / Māpua Drive intersection.

### **Pedestrian and Cycle Provision**

The proposed provision of pedestrian and cycle connections to Seaton Valley Road, Māpua Drive, and Stafford Drive from the proposed residential zones are likely to increase pedestrian and cycle numbers on those, and adjacent streets.

Cyclists on Māpua Drive between Higgs Road and Aranui Road will need to ride within the vehicle lanes.

There is an unsealed shoulder on one side of Seaton Valley Road in the rural (80km/h) section. There is footpath, kerb, and channel infrastructure on one side of the road in the urban (50km/h) section. There is no shoulder which cyclists can use on this section of the road.

Stafford Drive has a narrow-shared path on the eastern side, separated from the vehicle lane by concrete kerbs with gaps between them.

A walking and cycling path which connects onto Stafford Drive opposite the existing shared path is included in the Seaton Valley Outline Spatial Plan.

This connection from the proposed residential areas of the Seaton Valley development will form a convenient link to Māpua school and the village centre. There is likely to be a significant increase in walking and cycling numbers on this section of Stafford Drive as a

result of the Seaton Valley residential development and to a lesser extent the proposed Commercial development in T-244.

The following upgrades are included in the 2024 – 34 Long Term Plan:

- Seaton Valley Road (stage 1 – including pedestrian and cycle upgrades) (2031/32)
- Seaton Valley Road (stage 2 - including intersection upgrade at Māpua Drive) (beyond 2034)
- Māpua Drive cycle routes (cycle routes on Māpua Drive) (beyond 2034)
- Māpua primary cycle routes (separated cycle facilities in Māpua) (beyond 2034)

Māpua Drive, Seaton Valley Road, and Stafford Drive typically have 20m wide road reserves. Additional land is likely to be required to accommodate pedestrian and cycle facilities.

#### **Recommendations:**

- That appropriate pedestrian and cycle facilities are provided on Seaton Valley Road, Māpua Drive, and Stafford Drive.
- An assessment of suitable trigger points for pedestrian and cycle facilities be undertaken.

#### **Māpua Drive / SH60 Intersection**

There have been several crashes at the intersection of Māpua Drive and SH60, including serious injury crashes, and a fatal crash. Council is working in collaboration with NZTA to identify options to address the crash rate at this intersection. These options could include short term speed limit reductions when vehicles approach the intersection from Māpua Drive; a permanent speed limit reduction; or a roundabout.

It is recommended that a safety review, which would include identification of trigger points for intersection upgrades be carried out.

#### **Māpua Wharf**

Māpua Wharf is a key destination in Māpua. Increased commercial destinations at the wharf, combined with residential growth across Māpua is likely to result in an increase in demand for pedestrian, cycle, and vehicle access to the wharf area for both visitors to Māpua and residents.

Parking at the wharf is currently under pressure for a comparatively short time over the Christmas-New Year period. This parking demand is largely met by overflow parking on the Kite Park and Council owned Commercial land. Increased vehicle numbers accessing the wharf area will increase pressure on parking, and development of the Commercial area and Kite Park may limit the amount of overflow parking available.

Providing safe and convenient pedestrian and cycle access will make walking and cycling more attractive options for accessing the wharf for residents of Māpua and some visitors, especially those using the Great Taste Trail. This could reduce demand for vehicle access and parking. It is proposed to include separated cycle ways on key routes in Māpua in the

LTP beyond 2034. However, there is still likely to be an increase in the numbers of vehicles accessing the wharf area.

### **Stafford Drive**

Stafford Drive is vulnerable to both slips from the cliffs above the road, and to SLR and storm surge. Geotechnical advice indicates that the cost to address these issues is likely to be high. There is therefore no guarantee that Stafford Drive will be reinstated if it suffers significant damage in the future.

All proposed plan change areas are to the southeast side of the vulnerable section of Stafford Drive. These areas will retain access to SH60 via Māpua Drive or Seaton Valley Road, and to Tasman Village via Pomona Road. The impact of any future closure of Stafford Drive on plan change areas is therefore expected to be small.

### **Recommendation**

- That funding for Māpua cycleways be included in the 2027–37 Long Term Plan
- That a parking strategy be developed for the Māpua. Options likely to be considered include:
  - Paid parking at key locations
  - Additional parking near the village centre, including on Pahi Street and/or Aranui Road

### **Infrastructure for Māpua – Overall**

Overall, Māpua has a timing-sensitive servicing pathway, with development dependent on the sequencing and delivery of planned infrastructure upgrades.

While a number of water, wastewater, stormwater, and transport upgrades are identified or planned, several key capacity improvements depend on staged delivery, future modelling, developer-led works, or projects programmed beyond the first 10 years of the planning horizon. If development uptake occurs faster than assumed, or if growth is concentrated before planned upgrades are delivered, available infrastructure capacity may constrain the timing, scale, or sequencing of development. This is most evident for wastewater trunk capacity across the Māpua Channel, stormwater management in the Seaton Valley catchment, and transport safety and access on Māpua Drive, Seaton Valley Road, Stafford Drive, and the SH60/Māpua Drive intersection.

Accordingly, growth in Māpua should be managed through sequencing, infrastructure triggers, and confirmation of capacity before development proceeds at scale.

### 12.3 Kite Park (T-235a/b)



Figure 48 T-235 a/b

#### 12.3.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-235a	Residential Zone	Recreation zone	Kite Park - 6, 8,10,12 Tahiti Street
T-235b	Residential Coastal	Recreation zone	Kite Park -14,16 Tahiti Street

#### 12.3.2 Infrastructure assessment (Category A)

No servicing required

## 12.4 23 & 25 Aranui Rd (T-236)



Figure 49 T-236

### 12.4.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-236	Residential Zone	Commercial	23 and 25 Aranui Rd

### 12.4.2 Infrastructure assessment (Category B1)

#### Three waters servicing

The infrastructure assessment for T-236 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed rezoning of 23 and 25 Aranui Road from Residential to Commercial.

#### Transport

Transport effects should be read alongside the wider Māpua Wharf area transport assessment in section 12.2 above.

The change from Residential to Commercial over this small area is unlikely to have a significant impact on the wider transport network. Any site-specific access, parking, servicing, pedestrian safety, or frontage matters can be addressed through standard design and consenting processes.

#### Stormwater (Māpua)

Stormwater effects for T-236 need to be considered in the wider Māpua stormwater context. The site is modelled as being free from coastal inundation until at least 1.5 metres of sea level rise with storm surge. This should be read alongside the Natural Hazards Assessment. Stormwater remains the main servicing consideration in the wider Māpua context,

particularly where residual surface flooding and overland flow paths affect low-lying coastal areas during larger rainfall events.

Residual surface flooding and overland flow are expected to remain possible during 1% AEP events, particularly in low-lying coastal areas and prior to completion of planned catchment upgrades. For this site, these effects are expected to influence site layout, finished floor levels, and drainage design rather than overall development feasibility. Stormwater servicing is therefore consistent with a Category B1 classification, because the servicing pathway is credible but depends on site-specific mitigation and wider catchment upgrade timing.

### **Overall Infrastructure Servicing Conclusion**

T-236 is appropriately classified as **Category B1**.

Current three waters services are sufficient for the proposed rezoning, and the scale of the zoning change is expected to have minimal impact on overall demand or network capacity.

The main servicing consideration is stormwater, in the context of residual surface flooding and overland flow affecting parts of Māpua during larger rainfall events. These matters are expected to be manageable through site-specific design, finished floor level controls, drainage design, consenting requirements, and alignment with wider Māpua catchment upgrades where required.

Transport effects are expected to be minor and can be managed through standard access and site design processes.

On this basis, the site has a credible infrastructure delivery pathway, with remaining matters able to be addressed through site-specific design, standard consenting processes, and wider stormwater upgrade sequencing where required.

## 12.5 Higgs Road - Greenfield land (T-237a-g)

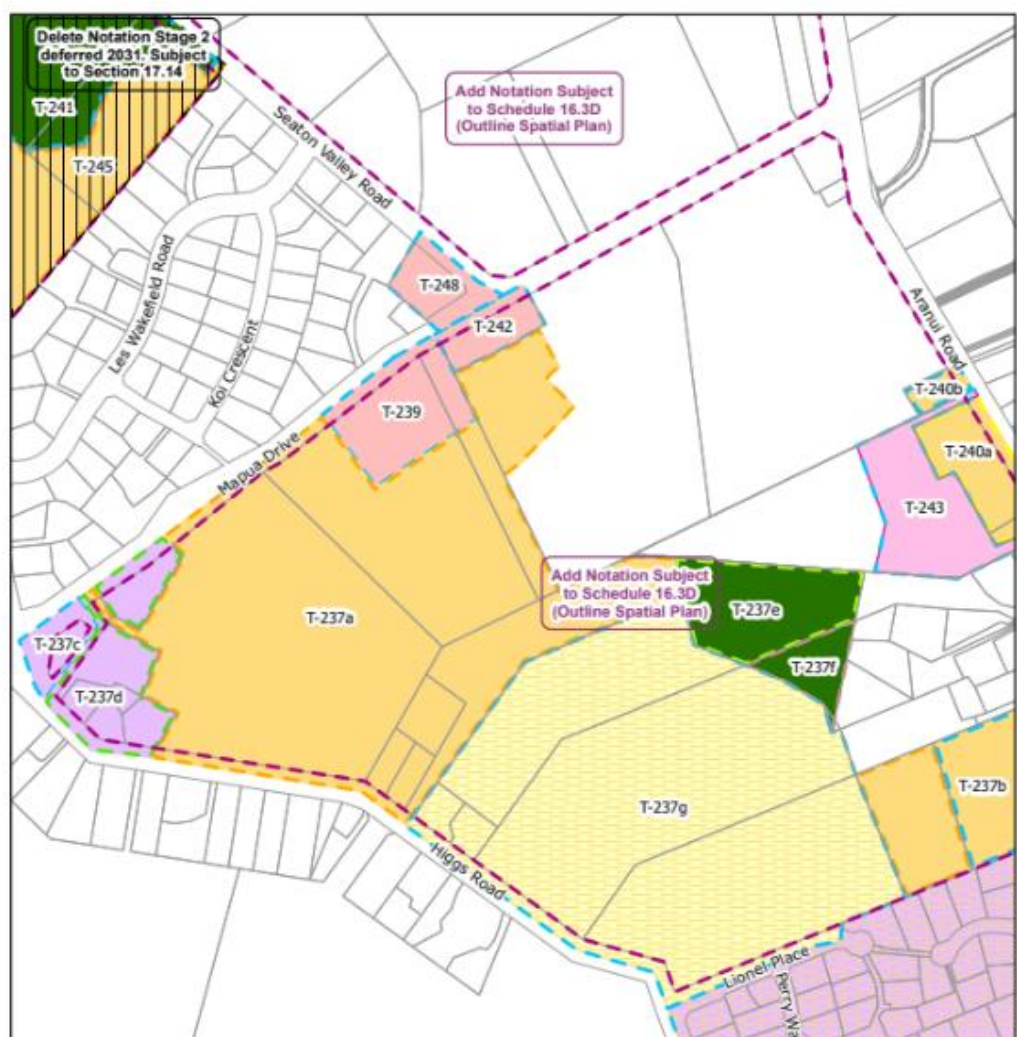


Figure 50 T-237a-g

### 12.5.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-237a-g	Rural 1 deferred Residential Zone	Medium Density Residential (T-237a/b), Standard Residential (T-237c/d), Open Space (T-237-e/f), Rural 1 deferred Medium Density Residential (T-237g).	Part - 29 Jessie Street 86 & 120 Higgs Road, Part 166 Māpua Drive <b>Estimated Yield: 255</b>

### 12.5.2 Infrastructure assessment (Category B2)

The infrastructure assessment for the Higgs Road greenfield land, T-237a–g, considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed residential rezoning.

## **Water**

Land at 29 Jessie Street has existing servicing, however the developer will likely be required to install linkages between Jessie Street and Aranui Road. The balance of the area has new services planned after year 10 to enable growth. In the medium to long term, upgrades of the trunk water supply mains will be required to support overall long-term growth in Māpua. It is assumed the high density firefighting rules will not apply to this development. Water supply servicing is therefore available for part of the area, but wider development depends on staged network extensions, trunk main upgrades, and developer-funded local reticulation. This supports a Category B2 classification for water supply.

## **Wastewater**

The land at 29 Jessie Street is currently serviced by the existing wastewater network. Servicing for the balance of the area is planned to be enabled through new infrastructure programmed beyond Year 10 of the Long-Term Plan to support future growth.

In the medium to long term, upgrades to the trunk wastewater mains crossing to Rabbit Island will be required to provide sufficient capacity and resilience to accommodate overall growth in Māpua. Development outcomes are therefore dependent on the timing and delivery of these staged upgrades rather than immediate network feasibility. Wastewater servicing is therefore achievable, but dependent on staged infrastructure delivery and future trunk upgrades. This supports a Category B2 classification for wastewater servicing.

## **Stormwater**

For part of 120 Higgs Road (T-237a), provision has been indicatively made for stormwater discharge to the Seaton Valley Detention-Wetland (SVDW). Other areas of the site, including T-237g and T-237b, will require developer-funded detention wetlands. Additional primary and secondary OLFP will also need to be identified, designed, and delivered by the developer.

Current coastal “bathtub” inundation modelling indicates that several low-lying areas are already subject to coastal flood exposure. Whilst the future situation could include protection via tidal gates at the Toru Street Causeway, these are not currently planned or funded. Uncontrolled impacts from coastal storm surge are not anticipated until approximately 1.5 m of SLR.

A comprehensive stormwater solution will therefore need to be determined and delivered by the developer, integrating detention, flow management, and coastal flooding considerations. Stormwater servicing is therefore achievable, but dependent on site-specific design, developer-funded infrastructure, and integration with wider Māpua stormwater planning. This supports a Category B2 classification for stormwater servicing as the detailed modelling and developer agreements are not in place.

## **Transport**

Transport effects should be read together with the general Māpua transport assessment.

An Outline Structure Plan has been developed for this site and for the Commercial zones T-239 and T-242. It identifies key walking, cycling, and vehicle access points to the site.

The sealed width of Higgs Road varies between 6 and 7 metres. There is no kerb and channel on either side of the road, and no footpath on the development side.

There is a footpath on only one side of Higgs Road over its entire length. The footpath changes sides of the road four times between the Māpua Drive, Higgs Road intersection, and Aranui Road (outside numbers 16, 15, and 94 Higgs Road, and at the Higgs Road, Māpua Drive intersection). This results in pedestrians needing to cross the road four times travelling between Māpua Drive and Aranui Road. Sight distances at the crossing points outside numbers 16 and 55 Higgs Road do not meet the AustRoads and NZTA Crossing Sight Distances for a 40km/h vehicle operating speed. Pedestrians crossing at these locations may not see an approaching vehicle in enough time to cross the road before the vehicle reaches them.

These issues can be addressed by one of the following:

- **Providing a footpath on both sides of Higgs Road.** This provides the best outcome. However, the topography on both the uphill and downhill sides of the road may make that impractical in some locations. A second footpath could be provided within the current parking bay on the southeast side of the road between numbers 1 and 23 Higgs Road. This would result in the loss of parking, which may not be supported by the community.
- **Reducing the operating speed of vehicles.** An 85<sup>th</sup> percentile speed of 30km/h would allow sufficient time for pedestrians to safely cross the road. The current 85<sup>th</sup> percentile speed on the section between Māpua Drive and Lionel Place is 55km/h. Significant traffic calming would therefore be required to reduce the 85<sup>th</sup> percentile to 30km/h.
- **Relocating the crossing points** to locations with better sight distances. This would require extending the footpath on the opposite side of the road, which may not be practical.
- **Reducing the width of road pedestrians are required to cross.** This is likely to be achieved by providing either a pedestrian refuge or kerb build outs at the crossing points.

Higgs Road from Lionel Place to Māpua Drive has:

- Approximately 6m seal width
- No kerb and channel
- Footpath on the southwestern side only. This has minimal separation from the sealed carriageway in locations
- Steep banks above and below the road in locations

Higgs Road is therefore not suitable to provide access to higher density residential development in its current state.

This development will almost certainly be staged, possibly over many years. There will therefore be potentially quite long periods, as stages are developed, and before connections are made through the site, when one or more long cul-de-sacs will service the site, and pedestrian and cycle connectivity is not made. This is likely to result in significant pressure on low volume local roads, such as Jessie Street, and associated intersections.

This can be mitigated by a staging process that prioritises through connections, including walking and cycling connections over cul-de-sacs.

**Recommendation:**

- That the developer upgrades the development side of Higgs Road adjacent to development areas to the requirements of the NTLDM for a Sub Collector, including parking, footpaths, and speed management to achieve a 40km/h target speed.
- That Council urbanises the opposite side of the road (including kerb and channel, and footpath, and assesses parking demand on the opposite side of the road.
- That pedestrian facilities on Higgs Road are improved to, at a minimum, provide safe crossing points between footpaths changing sides of the road.
- That development be staged to provide through, and pedestrian and cycle, connections, rather than long cul-de-sacs.

Transport servicing is therefore not currently confirmed. The required pathway depends on Higgs Road upgrades, safe pedestrian facilities, speed management, active transport links, and subdivision staging. These works are not currently included in the 2024–2034 Long-Term Plan and therefore create a material delivery dependency. This supports a Category C classification for transport.

**Overall Infrastructure Servicing Conclusion**

T-237a–g is classified as **Category B2 overall**, with a Category C transport component.

Part of the area, including land at 29 Jessie Street, has existing servicing. However, full development of the Higgs Road greenfield land depends on staged infrastructure delivery, including developer-funded service linkages, future water and wastewater network extensions beyond Year 10, and medium to long-term trunk upgrades to support wider Māpua growth.

Stormwater servicing requires a comprehensive developer-led solution, including discharge to the Seaton Valley Detention Wetland where appropriate, developer-funded detention wetlands, identification and protection of primary and secondary overland flow paths, and integration with coastal flooding and sea level rise considerations.

Transport is a significant servicing dependency. Higgs Road is not currently suitable for higher density residential development without upgrades to road frontage, pedestrian facilities, active transport connections, speed management, and crossing safety. Development staging will also need to prioritise through-connections and avoid extended reliance on long cul-de-sacs.

On this basis, the site has a credible infrastructure delivery pathway for three waters, provided development is supported by staged network upgrades, developer-led stormwater infrastructure, Higgs Road upgrades, safe walking and cycling connections, and subdivision controls that align development with infrastructure delivery. However, the unresolved and unfunded transport upgrades remain a material delivery risk and may require staging, deferral, or a more restrictive planning response unless a secure delivery mechanism is confirmed.

## 12.6 33 & 35 Higgs Road (T-238a-c)



Figure 51 T-238a-c

### 12.6.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-238a-c	Rural 1 deferred Residential Zone	Medium Density Residential (T-238a/b) and, 'Rural 1 (T-238c) is in category A'	33 and 35 Higgs Road <b>Estimated Yield: 28</b> Outline Spatial Plan

### 12.6.2 Infrastructure assessment (Category B2) – T-238a/b

The infrastructure assessment for T-238a/b considers the availability, capacity, timing, and delivery pathway of infrastructure required to support medium density residential development at 33 and 35 Higgs Road, Māpua.

#### Water

There are no growth-related projects planned in the Long-Term Plan (LTP) in the medium term to address additional demand associated with this site. For the scale of development anticipated, the existing network is considered to have sufficient capacity in the short term.

However, in the longer term (approximately Years 10–20), upsizing of trunk water mains will be required to support cumulative growth across Māpua. Until such upgrades are delivered, servicing of this site will rely on a developer-led access and servicing solution, connecting to the existing Higgs Road water main. Water supply servicing is therefore achievable in the short term, but dependent on developer-led local works and longer-term trunk upgrades to support cumulative growth. This supports a Category B2 classification for water supply.

## **Wastewater**

No growth-related wastewater projects are planned in the medium term within the LTP to directly enable additional capacity for this site. While the current wastewater network is likely sufficient to accommodate the anticipated yield in the short term, longer-term growth (Years 10–20) across Māpua will require upsizing of trunk wastewater mains to Rabbit Island.

Development of this site will therefore require a developer-led wastewater servicing solution, including delivery of a pressure line connection to Aranui Road, to ensure appropriate network integration and performance. Wastewater servicing is therefore achievable, but dependent on developer-led local infrastructure and longer-term trunk wastewater upgrades to support cumulative Māpua growth. This supports a Category B2 classification for wastewater servicing.

## **Stormwater**

There are no existing stormwater services servicing the site, and no Council-led stormwater projects are planned to enable growth. Site-specific stormwater infrastructure will therefore be required.

Stormwater modelling indicates that the site is not subject to hazardous flooding during a 1% AEP event, and proposed development areas are not expected to be impacted by up to 2 metres of SLR. A fully developer-led stormwater solution will be required, including identification, design, and delivery of appropriate mitigation measures.

Stormwater servicing does not rely on new Council reticulation, but it depends on site-specific design, developer-funded mitigation, and confirmation through consenting. This supports a Category B2 classification for stormwater servicing.

**Transport** See general comments on Māpua above.

This site is close to central Māpua. There is a footpath on the development side of Higgs Road at this location, so assuming that footpath improvements on Higgs Road (recommended above) are completed, the site will have good connectivity to central Māpua. The site will also have good pedestrian and cycle connectivity along the esplanade reserve to Aranui Road near the wharf, and to Langford Drive.

NTLDM Intersection sight distances are unlikely to be achieved at the access with Higgs Road. However, private access sight distance requirements can be achieved, and access effects are considered manageable through detailed design at the consenting stage. Transport servicing is therefore achievable, but dependent on detailed access design, confirmation of sight distances, and integration with wider Higgs Road walking and cycling improvements. This supports a Category B2 classification for transport.

## **Overall Infrastructure Servicing Conclusion**

T-238a/b is appropriately classified as **Category B2**.

The site can be serviced in the short term through existing water and wastewater networks, subject to developer-led local infrastructure and detailed connection design. However, no medium-term Long Term Plan growth projects are planned specifically to enable additional capacity for the site, and longer-term cumulative infrastructure demand across Māpua will require trunk water main upgrades and trunk wastewater crossing the Māpua channel

Stormwater servicing is not currently available and will need to be fully developer-led. Available modelling indicates that the site is not subject to hazardous flooding during a 1% AEP event and that proposed development areas are not expected to be affected by up to 2 metres of sea level rise, but stormwater mitigation still needs to be confirmed through detailed design.

Transport effects are manageable through detailed access design. The site has strong potential walking and cycling connectivity to central Māpua, the esplanade reserve, Aranui Road, the wharf area, and Langford Drive, provided wider Higgs Road improvements are completed. Although full intersection sight distance standards are unlikely to be achieved at the Higgs Road access, private access sight distance requirements can be met and should be confirmed through consenting.

On this basis, the site has a credible infrastructure delivery pathway, provided development is supported by developer-led servicing, site-specific stormwater design, access design, and alignment with longer-term Māpua network upgrade planning.

## 12.7 Part 120 Higgs Road (T-239)



Figure 52 T-239

### 12.7.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-239	Rural 1 deferred Residential Zone	Commercial	Part 120 Higgs Road Outline Spatial Plan

### 12.7.2 Infrastructure assessment (Category B2)

The infrastructure assessment for T-239 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed Commercial zoning at part of 120 Higgs Road, Māpua.

#### Water

The site is currently partially serviced for water from the Higgs Road water main. For the scale of development anticipated, the existing network is considered to have sufficient capacity in the short term. However, in the longer term (approximately Years 10–20), upsizing of trunk water mains will be required to support cumulative growth across Māpua.

Development outcomes are therefore sensitive to future trunk upgrades rather than immediate servicing feasibility. Water supply servicing is therefore achievable in the short term, but dependent on developer-led local works and longer-term trunk water upgrades to support cumulative Māpua growth. This supports a Category B2 classification for water supply.

### **Wastewater**

The site is not currently connected to the reticulated wastewater network. While the wider system is likely to have sufficient short-term capacity to accommodate the anticipated yield, longer-term growth (Years 10–20) across Māpua will require upsizing of trunk wastewater mains to Rabbit Island. Wastewater servicing is therefore feasible, but dependent on staged infrastructure delivery at a settlement scale. Wastewater servicing supports a Category B2 classification, as there is a credible servicing pathway, but delivery depends on wider network upgrades and developer-led connection works.

### **Stormwater**

Provision has been made in principle for stormwater discharge to the future Seaton Valley Detention Wetland (SVDW). An existing open channel traversing the site will need to be retained and incorporated into the redevelopment. The identification and funding of additional primary and secondary flow management will be the responsibility of the developer. Currently predicted impacts from SLR are expected to be mitigated by the SVDW project, subject to detailed design confirmation. Stormwater servicing is therefore achievable, but dependent on future Council works, retention of the existing open channel, and developer-funded primary and secondary flow management. This supports a Category B2 classification for stormwater servicing.

### **Transport**

Transport effects for this site should be read in conjunction with the assessment for T-237, with no additional site-specific transport constraints identified at this stage. Transport servicing is therefore consistent with a Category B2 classification, as transport effects are expected to be manageable through the wider Higgs Road structure planning and subdivision design framework.

### **Overall Infrastructure Servicing Conclusion**

T-239 is appropriately classified as **Category B2**.

The site has a credible infrastructure delivery pathway, but servicing is dependent on staged network upgrades and developer-led local works. Water supply is partially available from the Higgs Road water main and is expected to be sufficient in the short term, but longer-term trunk water upgrades will be required to support growth across Māpua.

Wastewater servicing is feasible in principle, but the site is not currently connected to the reticulated network. Longer-term growth across Māpua will require upgrades to the trunk wastewater mains crossing the Māpua channel, and the site's final wastewater servicing arrangement will need to be confirmed through detailed design and consenting.

Stormwater servicing is dependent on discharge to the future Seaton Valley Detention Wetland, retention and integration of the existing open channel, and developer-funded primary and secondary flow management. Predicted sea level rise effects are expected to be

mitigated by the Seaton Valley Detention Wetland project, subject to detailed design confirmation.

Transport effects should be managed through the wider T-237 assessment, the Outline Structure Plan, and standard design and consenting processes. No additional site-specific transport constraints have been identified at this stage.

### 12.8 109 & 119 Aranui Road (T-240)



Figure 53 T-240

#### 12.8.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-240	Rural Residential deferred Residential Zone	Medium Density Residential	109 and 119 Aranui Road <b>Estimated Yield: 7</b> Outline Spatial Plan

#### 12.8.2 Infrastructure assessment (Category B1)

The infrastructure assessment for T-240 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed medium density residential zoning at 109 and 119 Aranui Road, Māpua.

##### Water

The site is currently serviced by the reticulated water supply network. Existing services are sufficient to support the level of development anticipated, and no water supply upgrades are required to enable the proposed growth. Water supply servicing is therefore available in principle and does not represent a material servicing constraint. This supports a Category B1

classification for water supply, noting that the overall site classification is influenced by stormwater, transport frontage, and wider wastewater capacity confirmation.

### **Wastewater**

The site is currently serviced by the reticulated wastewater network. Existing capacity is sufficient to accommodate the proposed level of development, and no wastewater upgrades are required to support the anticipated yield. This is dependent on the timing and capacity available through the network and across the Māpua channel where there may be possible constraints. Wastewater servicing is therefore available in principle, subject to confirmation of wider network capacity at the time of development. This supports a Category B1 classification for wastewater servicing.

### **Stormwater**

The site is not currently connected to a formal public stormwater system. Onsite soakage is assumed to be the primary method of stormwater management. Minor surface flooding may occur during a 1% AEP event; however, these effects are localised and manageable through appropriate site design.

Coastal flood modelling indicates that the site is not affected by coastal inundation until approximately 1.5 metres of SLR (Refer to Natural Hazards Assessment). Stormwater servicing is therefore achievable through site-specific design and developer-funded mitigation. This supports a Category A classification for stormwater servicing as interaction with Council networks is not required.

### **Transport**

The small development yield associated with this site is unlikely to generate any material effects on the wider transport network.

The Great Taste Trail runs along this section of Aranui Road, with a shared pedestrian and cycle path located along the site boundary. Vehicle crossings will be required to achieve sight distances in accordance with Figure 4-11 of the NTLDM to ensure safe interaction with users of the shared path.

Aranui Road is classified as a Principal Road. The NTLDM specifies a minimum road reserve width of 27 metres for Principal Roads, whereas the existing road reserve is approximately 20 metres wide.

The southwestern side of Aranui Road currently lacks kerb and channel. Road runoff and stormwater from adjoining properties is mitigated via a narrow swale. There is a residual risk of localised flooding within the carriageway if either the swale or onsite stormwater management systems do not function as intended.

### **Recommendations:**

- That road reserve be widened to allow for appropriate cycle facilities be provided on Aranui Road in the future
- That the developer urbanises the Aranui Road frontage. Including an appropriate stormwater management system to deal with both road and private stormwater.

Transport servicing is therefore manageable, but dependent on safe vehicle crossing design, protection of shared path users, frontage upgrades, and road stormwater management. This supports a Category B1 classification for transport.

### Overall Infrastructure Servicing Conclusion

T-240 is appropriately classified as **Category B1**.

The site is currently serviced by reticulated water and wastewater networks. Water supply capacity is sufficient for the anticipated level of development, and no water upgrades are required. Wastewater servicing is also available in principle, subject to timing and confirmation of available capacity through the wider Māpua network and across the Māpua channel.

Stormwater is not provided by a formal public stormwater system and will need to be managed through onsite soakage and site-specific design. Minor 1% AEP surface flooding is expected to be localised and manageable, and coastal modelling indicates that the site is not affected by coastal inundation until approximately 1.5 metres of sea level rise, subject to the Natural Hazards Assessment.

Transport effects are expected to be limited by the small development yield, but the Aranui Road frontage requires careful design because of the Great Taste Trail shared path, existing road reserve width constraints, lack of kerb and channel on the south-western side, and reliance on a narrow swale for road and private stormwater.

On this basis, the site has a credible infrastructure delivery pathway, provided development is supported by wastewater capacity confirmation, onsite stormwater design, safe vehicle crossing arrangements, Aranui Road frontage upgrades, and developer-funded mitigation where required.

### 12.953 & 29 Seaton Valley Road (T-241)



Figure 54 T-241

### 12.9.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-241	Rural 1 deferred Residential Zone	Open space	Council owned stormwater detention area.

### 12.9.2 Infrastructure assessment (Category A)

No assessment required as no services required.

### 12.10 150 Māpua Drive (T-242)



Figure 55 T-242

### 12.10.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-242	Rural 1 deferred Residential Zone	Commercial	The commercial activity was put in place via a resource consent (RM150931), which includes conditions covering servicing. There are currently no connections to Council's reticulated services.

### 12.10.2 Infrastructure assessment (Category B1)

The infrastructure assessment for T-242 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed Commercial zoning at 150 Māpua Drive.

## Water

Connections are available and water capacity is sufficient. This property has no current water connection. Water connections to the network are to be provided by the property owner.

### **Wastewater**

Connections are available. Wastewater connections to the current network will need to be provided by the property owner.

### **Stormwater**

Indicative provision has been made for future stormwater to discharge to the proposed SVDW. Currently predicted impacts from SLR are expected to be mitigated by the SVDW project, subject to detailed design confirmation. On-site stormwater management solutions are to be provided by the developer. This supports a Category B1 classification for stormwater servicing because a credible servicing pathway exists, but final design and property-level mitigation still need to be confirmed.

### **Transport**

This site is currently operating as Commercial. The impacts from changing the zone are expected to be minimal.

### **Overall Infrastructure Servicing Conclusion**

T-242 is appropriately classified as **Category B1**.

The site is already operating as a commercial activity, and the proposed zoning change is expected to have minimal additional infrastructure effect. Water and wastewater connections are available, with any required property connections to be provided by the property owner. Stormwater can be managed through onsite solutions and, where appropriate, discharge to the proposed Seaton Valley Detention Wetland.

On this basis, the rezoning is infrastructure neutral. It is supported without reliance on new Council network upgrades, infrastructure staging, or unresolved developer-led mitigation beyond normal property connection, onsite stormwater design, and consenting requirements.

## 12.11 107a/b Aranui Road (T-243)



Figure 56 T-243

### 12.11.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-243	Rural Residential deferred Residential Zone	Rural Residential (served)	107a/b Aranui Road <b>Estimated Yield: N/A</b>

### 12.11.2 Infrastructure assessment (Category B1)

The infrastructure assessment for T-243 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed Rural Residential – Served zoning at 107a/b Aranui Road, Māpua.

#### Water

Current services provide sufficient capacity for development.

#### Wastewater

Current services provide sufficient capacity for development.

#### Stormwater

The site is currently unserved, with onsite soakage assumed to be the primary stormwater management solution. Minor flooding is expected during a 1% AEP event, except for the rear portion of the property located below 2.5 m RL. The site is currently modelled as being subject to coastal flooding; however, the bathtub modelling approach likely overstates the extent of actual current inundation. However, the site is projected to become unviable for development after approximately 1.5 m of SLR. Refer to Natural Hazards assessment.

Stormwater servicing does not rely on a new Council stormwater network, but it depends on site-specific soakage, finished floor levels, building platform selection, and coastal hazard assessment. This supports a Category B1 classification overall, noting that stormwater and coastal hazard matters require confirmation through consenting.

### **Transport**

The expected impact from the proposed zone change on this small site is expected to be small.

### **Overall Infrastructure Servicing Conclusion**

T-243 is appropriately classified as Category B1.

Water and wastewater services provide sufficient capacity for the anticipated level of development and do not represent material servicing constraints.

Stormwater and coastal hazard matters are the principal infrastructure considerations. The site is not currently connected to a formal public stormwater system, and onsite soakage is assumed to be the primary stormwater management solution. Minor 1% AEP flooding is expected, with greater constraint associated with the rear portion of the property below 2.5 metres RL.

The site is currently modelled as being subject to coastal flooding, although the bathtub modelling approach may overstate actual current inundation. The projected loss of development viability after approximately 1.5 metres of sea level rise is a material consideration and should be read alongside the Natural Hazards Assessment.

Transport effects are expected to be small and manageable through standard design and consenting processes.

On this basis, the site has a credible infrastructure delivery pathway, provided development is supported by site-specific stormwater design, appropriate building platform selection, finished floor level controls, onsite mitigation, and consideration of coastal hazard constraints through the consenting process.

12.12 18 & 34 Stafford Drive (T-244)



Figure 57 T-244

### 12.12.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-244	Rural 1 deferred Light Industrial	Light Industrial	18 and 34 Stafford Drive

### 12.12.2 Infrastructure assessment (Category B2)

The infrastructure assessment for this site considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed zoning change.

#### **Water**

Current services provide sufficient capacity for development.

#### **Wastewater**

Current services provide sufficient capacity for development.

#### **Stormwater**

Stormwater can drain to the adjacent Seaton Valley Stream and is available in principle. However, the site will become increasingly at risk from coastal inundation or stormwater back-up from approximately 0.5 m of SLR. While the future situation could include protection via tidal gates at the Toru Street Causeway, these are not currently planned or funded. Stormwater servicing therefore depends on site-specific design, developer-funded mitigation, and recognition of future SLR effects. This supports a Category B2 classification for stormwater servicing.

#### **Transport**

This location is close to residential areas and will provide employment opportunities within Māpua, reducing the need to travel further afield for employment.

A Resource Consent has been granted for development on the southern portion of the site.

This will increase the number of pedestrians and cyclists on Stafford Drive.

A walking and cycling path which connects onto Stafford Drive opposite this site is included in the Seaton Valley Outline Spatial Plan (T-42, 49 Stafford Drive).

This connection from the residential areas of the Seaton Valley development will form a convenient link to Māpua school and the village centre. There is likely to be a significant increase in walking and cycling numbers on this section of Stafford Drive as a result of both the Seaton Valley residential development and the Commercial development on this site.

Stafford Drive has a 1.5m wide shared path which is separated from the road carriageway by concrete blocks. Stormwater from the road, and runoff from the adjacent properties is dealt with in a narrow swale. There is a risk of flooding in the road if either this swale or the stormwater system within the property does not function properly.

#### **Recommendations:**

- That urbanisation, including cycle facilities, be provided on Stafford Drive outside the property by the developer.

- The developer develops an appropriate stormwater management system
- That the increasing impacts of Sea level Rise (SLR) be noted.

The reliance on developer-led delivery supports a Category B2 classification.

**Overall Infrastructure Servicing Conclusion**

The site is appropriately classified as **Category B2**.

Current water and wastewater services provide sufficient capacity for the anticipated development. Stormwater can drain to the adjacent Seaton Valley Stream and is available in principle, but the site will become increasingly exposed to coastal inundation or stormwater back-up from approximately 0.5 metres of sea level rise. Potential future tidal gate protection at the Toru Street Causeway is not currently planned or funded.

Transport effects are manageable but require frontage and active transport improvements. The site is well located relative to existing residential areas and can provide employment opportunities within Māpua. However, the combination of the granted resource consent on the southern portion of the site, future commercial development, and the Seaton Valley residential development is expected to increase walking and cycling movements on Stafford Drive.

On this basis, the site has a credible infrastructure delivery pathway, provided development is supported by developer-funded stormwater management, Stafford Drive urbanisation, walking and cycling facilities, integration with the Seaton Valley Outline Spatial Plan, and recognition of increasing sea level rise effects.

**12.13 29 & 53 Seaton Valley Road (T-245)**



Figure 58 T-245

12.13.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
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<b>T-245</b>	Rural 1 deferred Residential Zone	Residential	29 and 53 Seaton Valley Road <b>Estimated Yield: 96</b> (RM240148, consented lots)
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### 12.13.2 Infrastructure assessment (Category A)

The infrastructure assessment for T-245 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed residential zoning at 29 and 53 Seaton Valley Road.

A resource consent has been granted for development of this site under RM240148, and the subdivision is proceeding. The consent conditions confirm the required three waters servicing arrangements, including water reticulation, wastewater reticulation, a wastewater pump station, a rising main, and stormwater reticulation discharging to Council’s stormwater detention basin on Seaton Valley Road.

#### **Water**

Water servicing for this site is covered by condition 23 of resource consent in RM240148. For clarity, the condition is set out below:

##### ***Water Supply***

- 22 *Full water reticulation, complete with all mains, valves, fire hydrants and other necessary fittings, shall be installed and a water meter provided for each of Lots 1 – 33 in accordance with the relevant standards of the Nelson Tasman Land Development Manual 2020. This will require work outside of the subdivision to connect to the existing mains in Catherine Road and Seaton Valley Road.*

#### **Wastewater**

Wastewater servicing for this site is covered by condition 23 of resource consent in RM240148. For clarity, the condition is set out below:

- 23 *Full gravity sewer reticulation discharging to Council’s reticulated system shall be installed, complete with any necessary manholes and a connection to each of Lots 1–33. The reticulation shall include: (a) installation of a pump station within Lot 605, designed and constructed in accordance with Section 6.8 of the Nelson Tasman Land Development Manual 2020; (b) installation of a rising main in Seaton Valley Road to convey sewage from the pump station to the existing rising main in Māpua Drive; and (c) construction of a retaining wall or filling of the ground adjacent to Council’s stormwater detention basin to ensure wastewater pipes are located above natural ground level. This will require work outside of the subdivision.*

#### **Stormwater**

Stormwater servicing for this site is covered by condition 23 of resource consent in RM240148. For clarity, the condition is set out below:

##### ***Stormwater Reticulation***

- 24 *Full stormwater reticulation discharging to Council’s stormwater detention basin on Seaton Valley Road shall be installed, complete with all necessary manholes,*

*sumps, and inlets, with a connection to each of Lots 1–33. All outlet points shall include appropriate scour measures.*

The three waters servicing for this development will primarily be delivered by the developer under the resource consent, with stormwater detention supported by existing TDC detention infrastructure. This supports a Category A classification for stormwater servicing because the servicing pathway has been confirmed through the consented subdivision and existing Council detention infrastructure serves the site.

### **Transport**

A resource consent to develop this site has been granted and the subdivision is proceeding. This consent includes a connection between Seaton Valley Road and the roundabout at the Māpua Drive / Catherine Road intersection. Refer to Section 12.2 for comments on wider Seaton Valley transport impacts.

### **Overall Infrastructure Servicing Conclusion**

T-245 is appropriately classified as Category A.

The infrastructure solutions for water, wastewater, stormwater, and transport have already been confirmed through resource consent RM240148. The consent secures full water reticulation, wastewater reticulation, a wastewater pump station, a rising main, stormwater reticulation discharging to Council's Seaton Valley Road detention basin, and a transport connection between Seaton Valley Road and the Māpua Drive / Catherine Road roundabout.

The required infrastructure is primarily developer-led and forms part of the consented subdivision delivery pathway. Stormwater detention is supported by existing TDC detention infrastructure.

On this basis, the site has a confirmed infrastructure delivery pathway and is supported without reliance on unresolved future network upgrades or unconfirmed servicing solutions.

### **12.14 Higgs Road Brownfield Land (T-246a/b)**

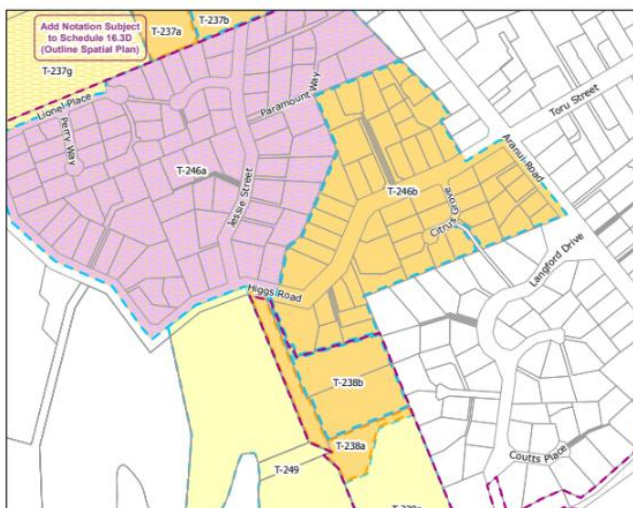


Figure 59 T-246a/b

### 12.14.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-246a/b	Residential Zone	Medium Density Residential Zone	Higgs Road Land <b>Estimated Yield: 50</b> (over 30 years)

### 12.14.2 Infrastructure assessment (Category B2)

The infrastructure assessment for T-246a/b considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed medium density residential zoning of the Higgs Road brownfield land.

#### Water

Current services provide sufficient capacity for development.

#### Wastewater

Current services provide limited capacity for development depending on reticulation upgrades being undertaken in future years.

#### Stormwater

The existing stormwater pipe network is extensive and is likely be able to accommodate future growth, provided detention is designed in accordance with NTLDM standards. Minor upgrades are likely to be required. The area is not subject to modelled 1% AEP floodwaters or medium-term SLR. This supports a Category A classification for stormwater servicing as existing Council infrastructure serves the site.

#### Transport

The Outline Spatial Plan for this area, and the adjacent medium and standard density residential zones in T-237 includes road connections from Jessie Street and Lionel Place through the new zones to Higgs Road and Māpua Drive, and pedestrian and cycle connections to Aranui Road.

The T-237 development will almost certainly be staged, possibly over many years. There will therefore be potentially quite long periods as stages are developed, and before connections are made through the site, when one or more long cul-de-sacs will service the site, and pedestrian and cycle connectivity is not made. This, combined with the intensification of T-246 is likely to result in significant pressure on low volume local roads, such as Jessie Street, and associated intersections.

This is likely to be mitigated to a degree by providing the indicative walking and cycling connection from the T-237 area to Aranui Road. This is likely to be included in an early stage of the development of the Jessie Road extension.

The reliance on developer-led delivery supports a Category B2 classification.

#### Overall Infrastructure Servicing Conclusion

T-246a/b is appropriately classified as **Category B2**.

Water supply services provide sufficient capacity for the anticipated development. Wastewater servicing is more constrained and depends on future reticulation upgrades and confirmation of available capacity.

Stormwater servicing is available in principle through the existing extensive pipe network, provided detention is designed in accordance with Nelson Tasman Land Development Manual standards. Minor upgrades are likely to be required, but the area is not subject to modelled 1% AEP floodwaters or medium-term sea level rise effects.

Transport is the main staging-related consideration. The site’s development pathway depends on the wider Outline Spatial Plan, including staged road connections from Jessie Street and Lionel Place to Higgs Road and Māpua Drive, and walking and cycling connections to Aranui Road. Until those connections are completed, intensified development may place additional pressure on low-volume local roads and associated intersections.

On this basis, the site has a credible infrastructure delivery pathway, provided development is supported by wastewater capacity confirmation, NTLDM-compliant stormwater detention, minor stormwater upgrades where required, coordinated staging with T-237, and early delivery of walking, cycling, and through-road connections where practicable.

### 12.15 57, 59 & 69 Stafford Drive (T-247)



Figure 60 T-247

#### 12.15.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-247	Rural 1 deferred Rural Residential (serviced)	Rural 1 deferred Rural Residential (serviced)	57, 59 and 69 Stafford Drive <b>Estimated Yield: N/A</b>

### 12.15.2 Infrastructure assessment (Category B2)

The infrastructure assessment for T-247 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed Rural 1 deferred Rural Residential – Serviced zoning at 57, 59 and 69 Stafford Drive.

#### **Water**

Current services provide sufficient capacity for development.

#### **Wastewater**

The existing wastewater network parallel to the site is a pressure line and is not available for direct connection. There is no gravity network in close proximity for these sites to connect to. The closest existing network is the Tait pump station, and the proposed future Stafford pump station is identified in Years 3–5 of the 2024–2034 Long-Term Plan. Servicing will need to be developer-led and may depend on other development or infrastructure proceeding first.

#### **Stormwater**

The site is currently unserviced, with onsite soakage assumed to be the primary stormwater management solution. Minor flooding is anticipated during a 1% AEP event, except at the front of the property adjacent to Stafford Drive, where flood depths exceeding 0.5 metres are predicted. The site is not currently modelled as being subject to coastal flooding; however, it is projected to be affected from 0.5 m of SLR. A solution for this issue needs to be provided by the developer. This supports a Category B2 classification for stormwater servicing because stormwater depends on site-specific design, developer-funded mitigation, and confirmation through consenting.

#### **Transport**

There is likely to be little additional development of these sites over and above the existing.

#### **Overall Infrastructure Servicing Conclusion**

T-247 is appropriately classified as **Category B2**.

Water services provide sufficient capacity for the anticipated level of development, and transport effects are expected to be limited.

Wastewater is the principal servicing dependency. The adjacent wastewater pressure line is not available for direct connection, and there is no nearby gravity network. Servicing is likely to depend on a developer-led solution, future Stafford pump station delivery, and coordination with other development or infrastructure staging.

Stormwater also requires site-specific resolution. The site is unserviced, onsite soakage is assumed, and flooding is anticipated during a 1% AEP event, with deeper flooding at the Stafford Drive frontage. Although the site is not currently modelled as being subject to coastal flooding, it is projected to be affected from 0.5 metres of sea level rise.

On this basis, the site has a credible infrastructure delivery pathway, provided development is supported by developer-led wastewater servicing, coordination with future pump station or network delivery, site-specific stormwater design, finished floor and access controls, and mitigation for future sea level rise effects.

## 12.16 5 Seaton Valley Road (T-248)



Figure 61 T-248

### 12.16.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-248	Rural 1 deferred Residential	Commercial	5 Seaton Valley Road

### 12.16.2 Infrastructure assessment (Category A)

The infrastructure assessment for T-248 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed zoning change at 5 Seaton Valley Road, Māpua.

#### **Water**

Current services sufficient for proposed development

#### **Wastewater**

Current services sufficient for proposed development.

#### **Stormwater**

Current services sufficient for proposed development.

#### **Transport**

There is likely to be little additional transport effects as a result of this change.

#### **Overall Infrastructure Servicing Conclusion**

T-248 is appropriately classified as Category A.

Current water, wastewater, and stormwater services are sufficient for the proposed development, and no material infrastructure constraints have been identified. Transport

effects are expected to be limited and manageable through standard design and consenting processes.

On this basis, the proposed change is infrastructure-neutral and does not rely on infrastructure staging, future Council network upgrades, or developer-led mitigation beyond normal connection, design, and consenting requirements.

### 12.17 Part 55 Higgs Road (T-249)



Figure 62 T-249

#### 12.17.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-249	Rural 1 deferred Residential	Rural 1	Part 55 Higgs Road

#### 12.17.2 Infrastructure assessment (Category A)

No servicing required. The zoning change prompts no need for any change.

## 12.18 59 Seaton Valley Road (T-250)



Figure 63 T-250

### 12.18.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-250	Rural 1 deferred Residential	Rural 1 deferred Medium Density Residential	59 (Part) Seaton Valley Road <b>Estimated Yield: 54</b>

### 12.18.2 Infrastructure assessment (Category B2)

The infrastructure assessment for T-250 considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed medium density residential zoning at part 59 Seaton Valley Road, Māpua.

#### Water

T-250 is not currently serviced for water. While some new services are planned by Year 10 (Project / AMP ID 86172) to support a limited level of growth, trunk main upgrades planned beyond Year 10 are required to support wider growth in Māpua.

#### Wastewater

T-250 is not currently serviced for wastewater. While some new services are planned by Year 10 (Project / AMP ID 96063) to support a limited level of growth, trunk main upgrades planned beyond Year 10 are required to support wider growth in Māpua.

#### Stormwater

The site is currently unserviced but is intended to be designed for stormwater discharge to the future SVDW. The developer will be responsible for investigating and managing 10% AEP flows and OLFP.

This supports a Category B2 classification for stormwater servicing because stormwater is not currently serviced and depends on future Council infrastructure, developer-led design, and management of 10% AEP flows and overland flow paths.

### **Transport**

Refer to Section 12.2 for comments on the Seaton Valley OSP above.

### **Overall Infrastructure Servicing Conclusion**

T-250 is appropriately classified as **Category B2**.

Some water and wastewater servicing is planned by Year 10 to enable growth, through Project / AMP ID 86172 for water supply and Project / AMP ID 96063 for wastewater. These projects provide a credible servicing pathway, but development timing will need to align with delivery of the planned upgrades or be supported by approved developer-led and funded solutions.

Stormwater is not currently serviced. Development will need to provide a developer-led stormwater solution designed to discharge to the future Seaton Valley Detention Wetland, including investigation and management of 10% AEP flows and overland flow paths.

Transport effects should be considered through the wider Seaton Valley Outline Spatial Plan assessment in Section 12.2, with detailed access, walking and cycling, and staging matters addressed through consenting.

On this basis, the site has a credible infrastructure delivery pathway, provided development is coordinated with planned water and wastewater upgrades, the future Seaton Valley Detention Wetland, developer-led stormwater design, and the wider Seaton Valley Outline Spatial Plan.

## 12.19 Seaton Valley Greenfield Land (T-11a/b)



Figure 64 T-11a/b

### 12.19.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
<b>T-11a/b</b>	Rural Residential and Rural 1 (part 49 Stafford Drive)	Residential (T-11a) and Medium Density Residential (T-11b)	Seaton Valley Greenfield Land - 120, 122, 2.62, 140, 154, 156, 164, Seaton Valley, Part 49 Stafford Drive  <b>Estimated Yield: 29 (T-11a) 90 (T-11b)</b>  Outline Spatial Plan

### 12.19.2 Infrastructure assessment (Category B2)

The infrastructure assessment for T-11a/b considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed residential and medium density residential zoning of the Seaton Valley greenfield land.

#### Water

Sites 11a and 11b are not currently serviced for water. While some new services planned by year 10 (Project/AMP ID 86172) to support a limited level of growth, trunk main upgrades planned beyond year 10 are required to support wider growth in Māpua.

## **Wastewater**

Sites 11a and 11b are not currently serviced for wastewater. While some new services planned by year 10 (Project AMP/ID 96063) to support a limited level of growth, trunk main upgrades planned beyond year 10 are required to support wider growth in Māpua.

## **Stormwater**

The site is currently unserviced; however, it is intended to be designed to discharge stormwater to the proposed SVDW. The developer will be responsible for assessing and managing 10% AEP flows and associated OLFP. T11b is anticipated to be partially raised as part of the development above the future detention fill level plus freeboard.

This supports a Category B2 classification for stormwater servicing because stormwater is not currently serviced and depends on the proposed SVDW, developer-led design, and management of 10% AEP flows and overland flow paths.

## **Transport**

Refer to Section 12.2 for comments on the Seaton Valley OSP above.

## **Overall Infrastructure Servicing Conclusion**

T-11a/b is appropriately classified as Category B2.

Sites 11a and 11b are not currently serviced for water or wastewater. New water and wastewater services are planned by Year 10 to support a limited level of growth, through Project / AMP ID 86172 for water supply and Project / AMP ID 96063 for wastewater. However, trunk water and wastewater upgrades planned beyond Year 10 are required to support wider cumulative growth across Māpua.

Stormwater is not currently serviced and will need to be addressed through developer-led design, funding, and delivery. The intended stormwater pathway is discharge to the proposed Seaton Valley Detention Wetland, with the developer responsible for assessing and managing 10% AEP flows and associated overland flow paths. T-11b is anticipated to be partially raised above the future detention fill level plus freeboard as part of development.

Transport effects should be considered through the wider Seaton Valley Outline Spatial Plan assessment in Section 12.2.

On this basis, the site has a credible infrastructure delivery pathway, provided development is coordinated with planned Year 10 water and wastewater services, longer-term trunk upgrades, the proposed Seaton Valley Detention Wetland, developer-led stormwater design, site raising for T-11b, and the wider Seaton Valley Outline Spatial Plan.

## 12.20 Part 49 Stafford Drive (T-42a/b)

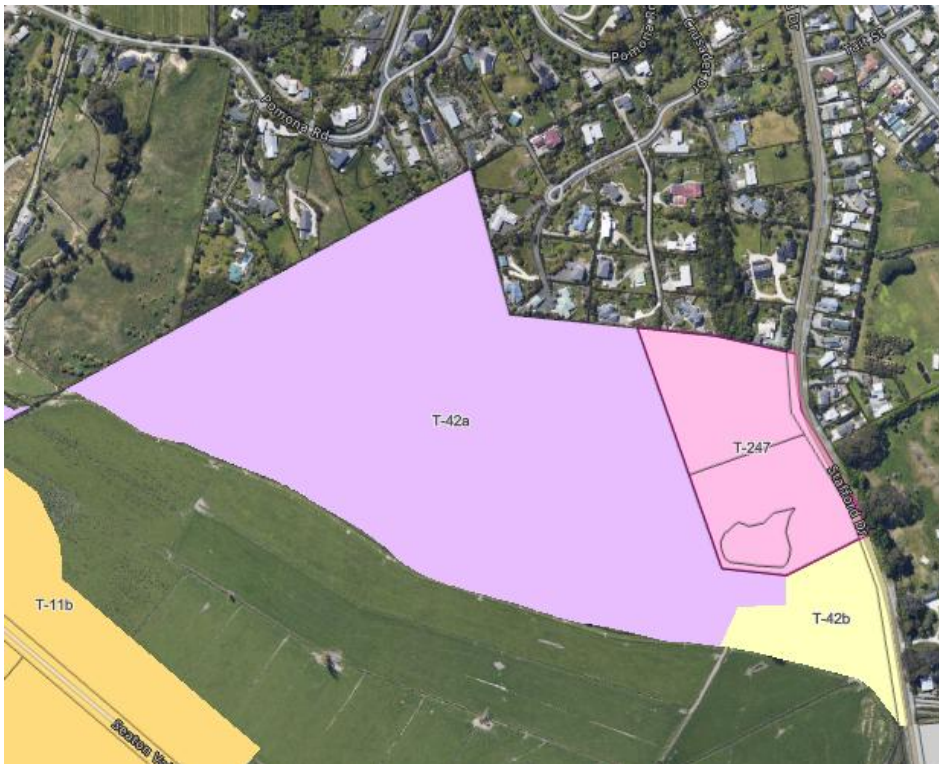


Figure 65 T-42a/b

### 12.20.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
T-42a/b	Rural 1 deferred Rural Residential (serviced)	Residential (T-42a) and Rural 1 (T-42b)	Part 49 Stafford Drive <b>Estimated Yield: 140</b>

### 12.20.2 Infrastructure assessment (Category B2)

The infrastructure assessment for T-42a/b considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed residential zoning at part of 49 Stafford Drive, Māpua.

#### Water

Sites T-42a and T-42b are not currently serviced for water. While some new services are planned by year 10 (Project/AMP ID's 86172, 86027, 86185, 86186) to support a limited level of growth, trunk main upgrades planned beyond year 10 are required to support wider growth in Māpua.

#### Wastewater

Sites T-42a and T-42b are not currently serviced for wastewater. While some new services planned by year 10 (Project/AMP ID 96007) to support a limited level of growth, trunk main upgrades planned beyond year 10 are required to support wider growth in Māpua.

## **Stormwater**

The site is currently unserviced; however, it is intended to be designed to discharge stormwater to the proposed SVDW. The developer will be responsible for assessing and managing 10% AEP flows and OLFP.

This supports a Category B2 classification for stormwater servicing because stormwater is not currently serviced and depends on the proposed SVDW, developer-led design, and management of 10% AEP flows and overland flow paths.

## **Transport**

Refer to Section 12.2 for comments on the Seaton Valley OSP above.

## **Overall Infrastructure Servicing Conclusion**

T-42a/b is appropriately classified as **Category B2**.

Sites T-42a and T-42b are not currently serviced for water or wastewater. New water and wastewater services are planned by Year 10 to support a limited level of growth, through Project / AMP IDs 86172, 86027, 86185, and 86186 for water supply and Project / AMP ID 96007 for wastewater. However, trunk water and wastewater upgrades planned beyond Year 10 are required to support wider cumulative growth across Māpua.

Stormwater is not currently serviced and will need to be addressed through developer-led design, funding, and delivery. The intended stormwater pathway is discharge to the proposed Seaton Valley Detention Wetland, with the developer responsible for assessing and managing 10% AEP flows and associated overland flow paths.

Transport effects should be considered through the wider Seaton Valley Outline Spatial Plan assessment in Section 12.2.

On this basis, the site has a credible infrastructure delivery pathway, provided development is coordinated with planned Year 10 water and wastewater services, longer-term trunk upgrades, the proposed Seaton Valley Detention Wetland, developer-led stormwater design, and the wider Seaton Valley Outline Spatial Plan.

## 12.21 Seaton Valley (T-33a/b)

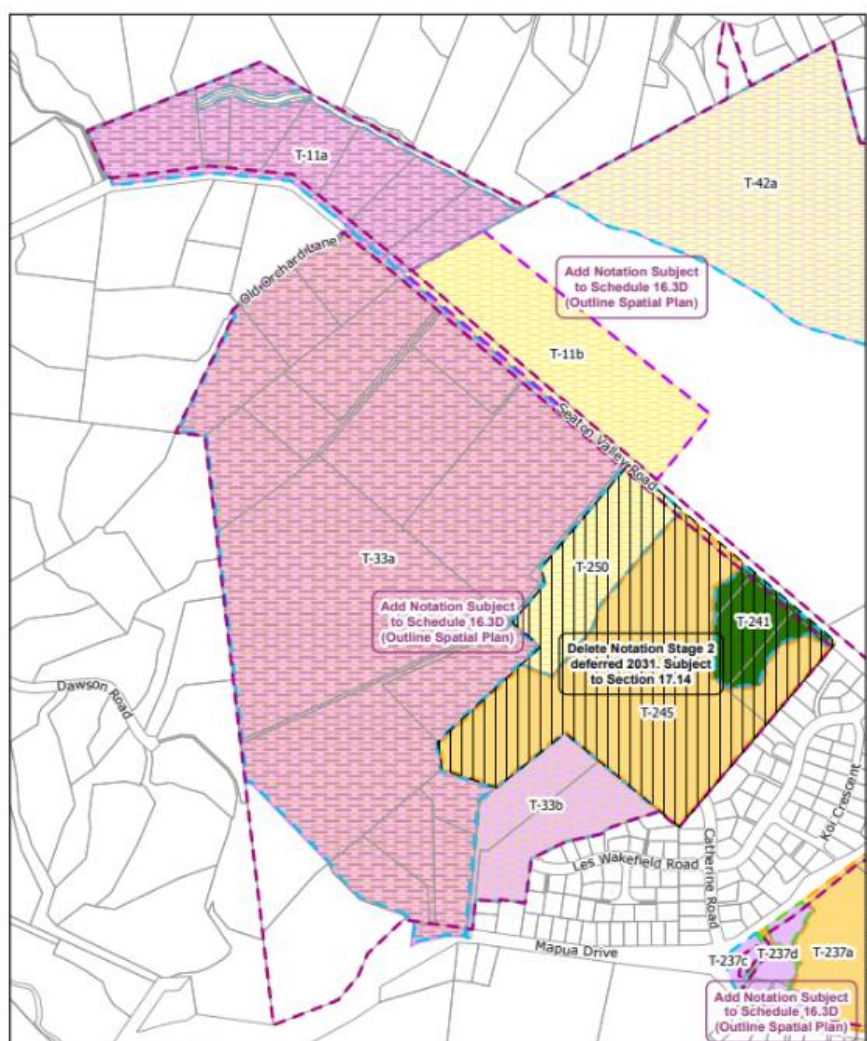


Figure 66 T-33a/b

### 12.21.1 General description of changes proposed

Site	Current Zone	Proposed Zone	Description
<b>T-33a</b>	Rural Residential	Medium Density Residential	Seaton Valley <b>Estimated Yield 249</b>
<b>T-33b</b>	Residential	Medium Density Residential	<b>Estimated Yield:53</b>

### 12.21.2 Infrastructure assessment (Category B2)

The infrastructure assessment for T-33a/b considers the availability, capacity, timing, and delivery pathway of infrastructure required to support the proposed medium density residential zoning in Seaton Valley, Māpua.

## **Water**

Sites T-33a and b are not currently serviced for water. While some new services (Project /AMP ID 86172) are planned by year 10 to support a limited level of growth, trunk main upgrades planned beyond year 10 are required to support wider growth in Māpua.

## **Wastewater**

Site T-33a and b are not currently serviced for wastewater. While some new services (Project/AMP ID 96063) planned by year 10 to support a limited level of growth, trunk main upgrades planned beyond year 10 are required to support wider growth in Māpua. Specifically for T 33b there has been yield allowance being provided for in the wastewater network that will service T-245 as a result of a developer-led solution for granted resource consent RM240178 that will allow for T-33b in the future.

## **Stormwater**

The 33a site currently lacks servicing but is planned to be designed for stormwater discharge to the future SVDW. The developer is responsible for investigating and managing 10% AEP flows and OLFP. The future function and role of the existing dam remain uncertain at this stage.

This supports a Category B2 classification for stormwater servicing for T-33a because stormwater is not currently serviced and depends on the proposed SVDW, developer-led design, management of 10% AEP flows and overland flow paths, and resolution of the existing dam's future role.

Site 33b is served by an existing Council detention dam and is Category A for stormwater.

## **Transport**

Refer to Section 12.2 for comments on the Seaton Valley OSP above.

## **Overall Infrastructure Servicing Conclusion**

T-33a/b is appropriately classified as Category B2.

The site has a credible infrastructure delivery pathway, provided development is coordinated with planned Year 10 water and wastewater services, longer-term trunk upgrades, the T-33b wastewater allowance, the future Seaton Valley Detention Wetland, developer-led stormwater design, resolution of the existing dam's role, and the wider Seaton Valley Outline Spatial Plan.

## 13 References

- Barker and Associates memorandum dated **10 April 2024** 'Revised Capacity Estimates – *Proposed Urban Growth Plan Change*'
- Barker and Associates memorandum dated **24 Sept 2024** 'Revised Capacity Estimates – *Proposed Urban Growth Plan Change*'
- Tasman District Council (2018) *Māpua Wastewater Upgrade Strategy* prepared by MWH New Zealand Ltd
- Tasman District Council (2022). *Nelson Tasman Future Development Strategy 2022–2052*.
- Tasman District Council (2024). *Long Term Plan 2024–2034*.
- Tasman District Council (2025). *Annual Plan 2025/26*.
- Tasman District Council (2024). *Infrastructure Strategy 2024–2054*.
- Tasman District Council (2024). *Activity Management Plans 2024–2054* (Water Supply, Wastewater, Stormwater, Transportation).
- Tasman District Council (2020, as amended). *Nelson Tasman Land Development Manual*.
- Tasman District Council (2018). *Richmond Water Supply Hydraulic Model* (Beca).
- Tasman District Council (ongoing). *Updated Richmond Water Supply Hydraulic Modelling* (in progress).
- Tasman District Council (various years). *Stormwater Catchment Modelling and Flood Hazard Mapping* (refer Appendix C).
- NZTA (2022). *Planning Policy Manual*.
- NZTA (2023). *Guide to Road Design – Part 4: Intersections and Crossings*.
- New Zealand Transport Agency (2026, amended). *High Risk Intersection Guide*.
- Ministry for the Environment (2023). *Managing Flood Risk under the Resource Management Act*.
- Rounce Project Solutions (2024). *On-site Wastewater Servicing Assessments for Plan Change 81* (Appendix A).
- Stantec (2017). *Murchison Water and Wastewater Network Capacity Assessment*.
- Beca (various years). *Infrastructure Investigations and Modelling Reports for Tasman District Council*.

## 14 Appendices

### Appendix A: 2024 Rounce Project Solutions ‘Onsite Wastewater reports’

#### ***Moutere sites:***

 [MOU1 Rezoning WW Report Aug 2024.pdf](#)

 [MOU1 Rezoning WW Plan Aug 2024.pdf](#)

 [MOU2 Rezoning WW Plan July 2024.pdf](#)

 [MOU2 Rezoning WW Report July 2024.pdf](#)

 [MOU3 Rezoning WW Report July 2024.pdf](#)

 [MOU3 Rezoning WW Plan July 2024.pdf](#)

#### ***Brightwater sites:***

 [BW5 Rezoning WW Plan July 2024.pdf](#)

 [BW5 Rezoning WW Report July 2024 signed.pdf](#)

#### ***Tākaka sites:***

 [TAK3 Rezoning WW Report Aug 2024.pdf](#)

 [TAK3 Rezoning WW Plan Aug 2024.pdf](#)

#### ***St Arnaud sites:***

 [STA1 Rezoning WW Report July 2024 signed.pdf](#)

 [STA1 Rezoning WW Plan July 2024.pdf](#)

Appendix B: AMP 2024-2054 (not inflated) projects

Richmond							
Wastewater		Water		Stormwater		Transport	
96097 Richmond Intensification - Increase capacity of reticulation	Yrs 1, 2-3 <b>\$200k</b>	86047 Richmond WTP Capacity Upgrade	Yrs 3-4	66097 Richmond Intensification Stormwater Capacity Upgrades  Developer funding where no infrastructure  Yrs 1 to 30 annual programme to address capacity issues throughout the core	Yrs 1-3 \$0.6M 4-10 \$2.9M Yrs 11-30 \$10m + indexing Yrs 9-10 \$0.1M Yr 11 \$2.2M	425620031 McShane / Lower Queen Intersection Upgrade	Yrs 5-6 <b>\$2.9m</b>
96098 Richmond Intensification - Oxford Street wastewater main	Yrs 5-6 <b>\$1.1m</b>	86050 Pipe Renewals in 6 Richmond Streets	Yrs 3-6			0425620070 Richmond offroad shared paths	Yrs 5-9 <b>\$1.8m</b>
		86051 Lower Queen St Main capacity upgrade	Yrs 1-4			0517620018 Paton Road Improvements	Yrs 10 -30 <b>\$5.8m</b>
		86112 Gladstone Rd New Main (Queen St to Three Brothers)	Yrs 1-4			0556620074 Lower Queen Street Widening Stage 1 (including Berryfield Drive intersection)	Yrs 5-7 <b>\$8m</b>
		86178 Richmond reticulation upgrades to service growth	Yrs 4-9				

## Richmond South

Wastewater		Water		Water		Transport	
96081 Part C New pressure main from burkes bank to beach Road Pump Station connecting in Richmond South Pump station.	Yrs 6-10 <b>\$30.3m</b>	86008 Mains Replacement Main Road Hope (Ranzau Rd to Three Brothers)	Yrs 1-2	66001 Borck Creek widening - Reed Andrews to SH6	Yrs 10 <b>\$0.8M</b>		
		86178 Richmond reticulation upgrades to service growth	Yrs 4-9	66047 Borck Creek SH 60 bridge capacity upgrade	Yrs 4-6 <b>\$7.0m</b>		
		86121 Richmond South Low-Level Reservoir	Yrs 1-2	66057 Borck Creek Widening - Sh60 to Reed Andrews	Yrs 7-9 <b>\$5.0m</b>		

## Wakefield

Wastewater		Water		Stormwater		Transport	
96053 Part A - Brightwater main WWPS upgrade and pressure main upgrade from Brightwater pump station to Burkes Bank	Yrs 4-6 <b>\$8.39m</b>	86123 Waimea water strategy – Brightwater & Wakefield water reticulation	Yrs 1-12	66101 Wakefield Church Land Capacity Upgrade for Development	Yr 4 <b>\$120K</b>	0556620149 Bird Lane Improvements, including minor improvements to SH60 intersection	Yrs 8 & 9 <b>\$3m</b>
96080 Part B - New pump station at Wakefield and increase capacity of mains from Wakefield to Burkes Bank	Yrs 2-6 <b>\$21.5m</b>			66102 Wakefield capacity upgrades for intensification (FDS T-029)	Yrs 4-5 <b>\$850K</b>		
96081 Part C – new pressure mains from Burkes Bank to Beach Road Pump Station and connecting in Richmond South Pump Station	Yrs 6-10 <b>\$30.3m</b>			66103 Edward Street Development Area Stormwater Upgrade (FDS T-107)	Yr 4 <b>\$268K</b>		

<b>Brightwater</b>					
<b>Wastewater</b>		<b>Water</b>		<b>Stormwater</b>	
96053 Part A- Brightwater main WWPS upgrade and pressure main upgrade from Brightwater pump station to Burkes bank	Yrs 4-6 <b>\$8.39m</b>	86008 SH6 Main renewal	Yrs 1-2	66099 Brightwater capacity Upgrade for intensification (FDS T-002)	Yr 3 \$0.3
96080 Part B- New pump station at Wakefield and increase capacity of mains from Wakefield to Burkes Bank	Yrs 2-6 <b>\$21.5m</b>	86123 Waimea Water Strategy – Brightwater & Wakefield Water Reticulation	Yrs 4-9 \$29m		
96081 Part C – new pressure mains from Burkes Bank to Beach Road Pump Station and connecting in Richmond South Pump Station	Yrs 6-10 <b>\$30.3m</b>	86184 Brightwater Reticulation Upgrades	Yrs 3-5 \$3.45m	66100 Brightwater Business Area Capacity Upgrades (FDS T-105)	Yrs 4-5 \$0.3 Yr 7 \$0.3
96015 New pressure main Brightwater North Pump station (Wairoa) to Beach Road pump station	Yrs 6-7 <b>\$1.9m</b>				

<b>Takaka - Wastewater</b>	
96094 Relocate Tākaka WWTP \$65.7m	Yrs 5-20
96105 Tākaka -increase capacity of pressure main between Hiawatha WWPS and the WWTP	Yrs 3-5
96106 Tākaka – Park Ave WWPS to Fresh Choice pressure main upgrade	Yrs 10+

## Appendix C: Additional stormwater details

### Rainfall Events

Council currently models two rainfall options to provide a cost-effective representation of the stormwater network capacity and associated flooding impacts. The 10% Annual Exceedance Probability (AEP) event is the storm that has a 10% chance of being exceeded in any year. This is used to check the effectiveness of the piped network and generally relates to the level of nuisance flooding that is experienced. The 1% AEP storm event is modelled to indicate the impact of a large storm event and levels of flooding experienced before the stormwater reaches a major channel such as the upgraded Borck Creek or the Wairoa River. In some river catchments, larger events i.e. the 0.5% or 0.4% AEP events have been modelled as well.

### Combined Hazard Curves

The flood models generate predictions of floodwater depth and velocity, and these can be compared with researched impacts to determine hazards. The combined hazard curves included in the Water NZ *National Stormwater Modelling Guidelines* are:

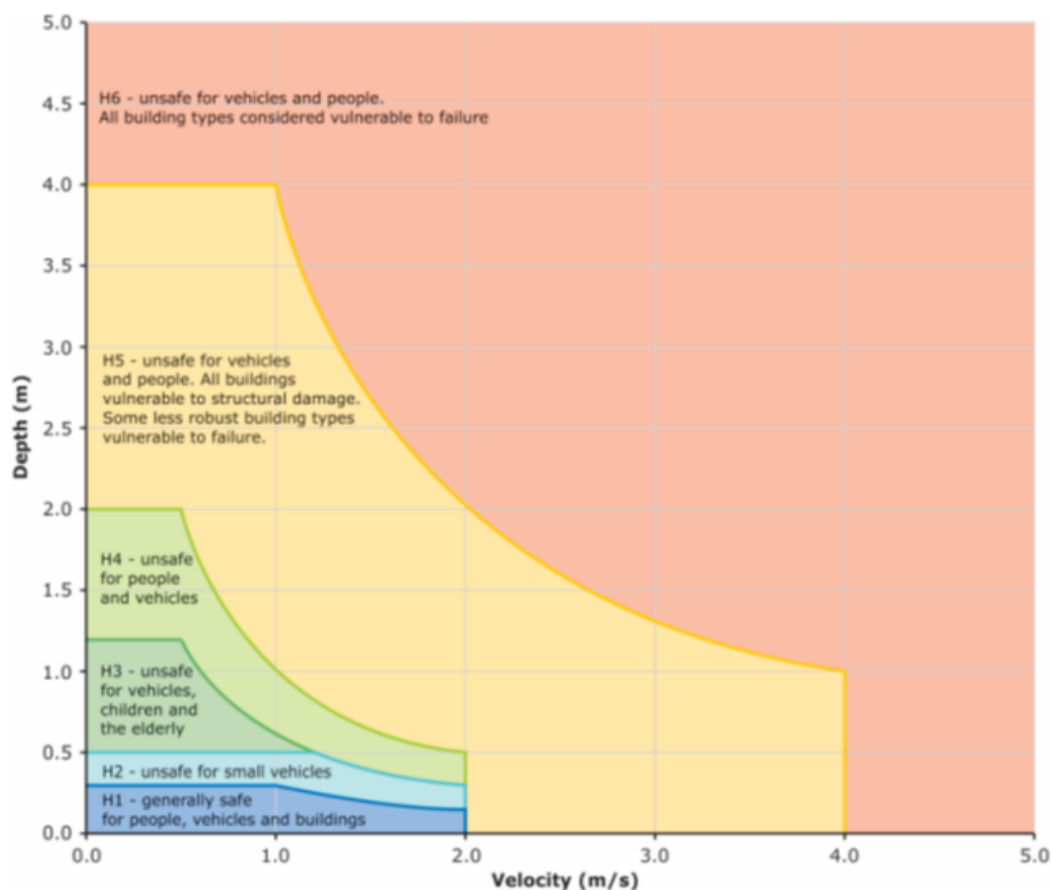


Figure 6.7.9. Combined Flood Hazard Curves (Smith et al., 2014)