Report on Assessment of Alternatives under Section 32 of the Resource Management Act

Plan Change 66
Richmond Housing Choice

July 2017

CONTENTS

Executive Summary

The report has been prepared in accordance with section 32 of the Resource Management Act (RMA) and is required by clause 5(1)(a) of Schedule 1 of the Resource Management Act (RMA) and s.74 (1) of the RMA. Clause 5(1)(a) also requires Council to have particular regard to this evaluation in deciding whether to proceed with the Plan Change.

The purpose of the Plan Change is to increase the choice of living opportunities in Richmond to allow for:

(a) residential intensification in central Richmond in the Richmond Intensive Development Area (RIDA) as shown on the planning maps; and

(b) a change to the compact density provisions for Richmond South and West.

The objectives of the Plan Change are to:

(i) Provide for a diversity and choice of housing density and form in Richmond to cater for a growing population, a changing demographic profile and a range of living options through medium density housing development in the forms of compact density, comprehensive housing and intensive residential development.

(ii) Encourage residential intensification through a combination of infill and redevelopment in the Richmond Intensive Development Area (RIDA), located around the town centre.

(iii) Ensure that medium density housing in Richmond in the forms of compact density, comprehensive and intensive housing, achieve a high standard of amenity.

The TRMP, as a result of this Plan Change, would define medium density housing and intensive housing separately. Medium density housing in Tasman is at a density of 20-30 dwellings per hectare on sites averaging between 200 sqm - 300 sqm. The TRMP already enables compact and comprehensive housing both forms of medium density housing, but these are not enabled close to the town centre. Intensive development is distinguished as housing in the new Richmond Intensive Development Area, where there is one or more dwellings on site.

For intensive housing in RIDA, the Plan Change introduces a new reduced lot size (200sqm) along with reduced parking and access standards that are appropriate for intensive housing located close to the town centre. The Change also introduces new rules that protect privacy and visual amenity, while other rules are based on existing rules for Compact Density housing e.g. requirements for outdoor living space, the building envelope and external boundary setback standards.

The Plan Change enables consents for subdivision and residential building (land use) activity for intensive development in RIDA to be applied for separately. Subdivision for Intensive housing in RIDA is a Controlled activity provided that a complying building envelope is submitted with the application for resource consent and other conditions are met. Land Use (building construction) is a Restricted Discretionary activity if conditions are met and key matters are addressed.

The Plan Change aims to manage development so that stormwater from additional development, adding to the impervious surface, does not cause flooding or contribute to any damage caused by flooding. To that end, the Plan Change introduces a new permitted stormwater rule that provides for on-site stormwater detention for additional site coverage and for specified flow path protection. The Plan Change also requires infiltration devices which will support base flow in summer, even if limited infiltration occurs in winter. It will also have benefits for runoff temperature control, first flush contaminant treatment and reduction in the speed and volume of runoff.

The Plan Change also proposes a reduction in the current minimum parent site size for Compact Density subdivision in the Richmond South and West Development Areas from 5,000 sqm to

1,500 sqm thus aligning the standard with that for the Mapua Special Development Area and the Motueka Compact Density Residential Area. Other minor changes to the Compact Density provisions correct errors or are made for consistency purposes.

The Plan Change makes some minor changes to the residential subdivision rules for the purpose of aligning specific provisions with other parts of the Plan. Schedule 16.3C relating to services required on subdivision is amended to correctly reflect the Permitted activity subdivision provision for stormwater. Also, the subdivision provision which subjects sites located within 60 metres of Designation 127 to a consent notice (to ensure compliance with the Residential zone (building construction and alteration) Permitted rule on internal sound levels), is amended to align with the Residential Zone rule.

For the purpose of improving plan legibility, substantial portions of text in Chapter 16.3.1 relating to Residential subdivision and Chapter 17. 1 relating to the Residential zone have been relocated within the Chapter. The text which has not changed, but just moved, is shown in grey shading.

The urban planning process leading to this proposed Plan Change has been lengthy, culminating with the Richmond Residential Advisory Group (RRAG) in 2015 and pre-notification consultation in 2016. While there was a pause in the wider Richmond programme, Council went through the RMA Schedule 1 process to make limited changes to the Tasman Resource Management Plan's rules governing residential building coverage in Richmond, Motueka, Brightwater and Wakefield. That Plan Change (number 59) allowed buildings to cover 40 per cent of the site, up from the previous 33 per cent and became operative in March 2016.

The collaborative process with the RRAG identified themes or main issues for consideration of intensive housing in Richmond. These were the location of such housing, its form, economic feasibility and its relationship with the existing TRMP policy framework. The option evaluation contained within this report uses these main themes as the basis for its assessment framework, in examining whether the proposed Plan Change provisions are the most appropriate way of achieving its objectives. Other reasonably practicable options are assessed, as well as the effectiveness and efficiency of the proposals. Preferred options are set out after the assessment and reasons for the Plan Change.

Environmental, economic, social and cultural effects have been considered and assessed as required by s.32. Contributions that the Plan Change could make to growth in construction employment have been acknowledged. This may assist the region's current under performance when compared with the national employment growth statistics. The evaluation report's statutory assessment concludes that the Plan Change objectives meet the requirements of part 2, part 4 and 5 of the RMA.

The risk of acting or not acting with uncertain or insufficient information has also been carefully considered, as required by s.32. Geographical areas suitable for intensification and economic feasibility of intensification are the two main areas considered in this report. Given the extent of the assessment that has been undertaken in identifying areas potentially suitable for intensification, it is considered that the risk is modest of areas being prioritised for intensification that are not suitable.

On economic feasibility it is considered that a proportionate amount of work has been undertaken in seeking to assess this. Building costs are the single most influential data input in such a feasibility assessment. Officers have learnt that building costs vary considerably in the District, dependant on specification of the product. Starter homes can commence at $1200 / sq m., whereas the RRAG had asserted the use of $1800/sq m. Council's own Building department had advised $1500/sq m and consultants have used up to $2,600 /sq m. QV reported in the press (June 2017) that building costs nationally were around $1,800-1,900 sq m. House building costs have risen by 3.5% in the last year due to high construction labour costs. Depending on which unit measure is fed into the assessment,

the feasibility varies considerably, since building costs represent about 50% of total costs. Some assessments have therefore resulted in a profit and some in no profit margin.

Given medium density developments have recently occurred in Richmond in areas close to the town centre and continue to occur, they must be profitable. Based on anecdotal evidence, demand for such developments is currently high, as housing affordability continues to worsen in the District.

1.0 Introduction and Drivers for Intensification

This report is an evaluation of a Plan Change to enable residential intensification for medium density housing in areas around Richmond town centre. The report has been prepared in accordance with section 32 of the Resource Management Act (RMA) and is required by clause 5(1)(a) of Schedule 1 of the Resource Management Act (RMA) and s.74 (1) of the RMA. Clause 5(1)(a) also requires Council to have particular regard to this evaluation in deciding whether to proceed with the Plan Change.

The overall purpose of s.32 is *"to ensure transparent, robust decision making on RMA Plans and policy statements."*[1] The relevant tests under the different parts of s.32 are assessed in the following sections of this report.

It refers to some specialist assessments appended to the Plan Change itself on commercial feasibility, prepared by both a stakeholder advisory group and by Telfer Young. Engineering officers have also contributed to this report in respect of infrastructure servicing and flood hazard issues.

1.1 Drivers for Residential Intensification in Richmond

There are both demographic drivers for considering intensification in Richmond and other factors as well. The demographic drivers include:

- Population growth in Tasman increased by 5.66% (2006-2013)
- Projected to increase by 8.6% (2013-2023) (medium projection) (SNZ Dec 2016 TA projections)
- Family households, one person households growing
- Household size decreasing in Richmond
- Over 65s comprise 20% of TDC's population today and will be 30% by 2031

Smaller houses on smaller sections are therefore proposed in the Plan change to meet growing demand from family households and single person households. Household size is becoming smaller in Richmond - when including the five area units that comprise Richmond, it has reduced from 2.8 to 2.7 persons between 2006 and 2013. The median age of population is increasing in Tasman. Over 65's are estimated to comprise 29% of population by 2031.

Other factors behind the consideration of intensification in Richmond include:

- To help minimise urban sprawl onto productive soils that surround RIchmond
- To meet demand for greater housing choice
- To meet National Policy Statement Urban Development Capacity (2016) requirements for providing adequate capacity, to ensure different types of housing demand can be met
- To ensure efficient use of infrastructure
- To enable access to services, public transport and recreational facilities

[1] MfE "A guide to section 32 of the RMA" (2014)

2.0 Background to the Proposed Plan Change

This section of the report explains the issues and the urban planning process leading to this Plan Change.

2.1 Richmond Development Study 2003

The Richmond Development Study of 2003 *"Issues and options for growth",* marked the start of growth planning for Richmond and in doing so identified and assessed options to provide for residential and industrial growth in Richmond for the period 2003-2023. The three strategic development options assessed were the implications of Richmond expanding in area, densifying or remaining constrained, for its urban activities.

One of its priority recommendations was for Central Area intensification, via infill recognising that this has the opportunity to provide a number of smaller dwellings to diversify the housing market. The "Central Area", envisaged at that time comprised parts of Oxford Street, Upper Queen Street, Salisbury Road, Talbot Street, Herbert Street and Edward Street. Since that time, several urban development changes to the Tasman Resource Management Plan (TRMP or the Plan) have been developed and become operative.

In 2004, Council adopted the principle of both central Richmond intensification and enabling more compact residential development on greenfields land. Plan changes then followed for Richmond South (Plan Change 5) in 2006 and Richmond West (Plan Change 10) in 2007 that enabled compact and medium density development in green field locations on the outskirts of Richmond. The Annexure B map 9 shows these greenfield areas (numbers 18, 19 and 20). In 2010 Plan Change 20 for Richmond East dealt with residential intensification and expansion northeast of the central area. Development standards, assessment matters and a Development Design Guide enabled and supported denser development in the new Residential zones.

2.2 Nelson Richmond Intensification Study

At about the same time as Plan Changes 5 and 10, the Nelson Richmond Intensification Study was undertaken by Boffa Miskell and Jerram Tocker Barron Architects, on behalf of Nelson City Council and Tasman District Council (TDC) in 2007. This was a joint pathway exercise by both Councils to identify how they should enable and encourage urban intensification, looking at all forms of more intensive development (infill and redevelopment) and also feasibility constraints. The study was adopted by both Councils.

TDC has therefore been examining the issue of residential intensification for over 10 years.

2.3 2007 – 2011

During this period, investigations were undertaken and reports taken to Environment and Planning committee on residential intensification. The Committee consequently approved the assessment of appropriate locations and methods for encouraging higher density residential development in Richmond as a whole. Following this directive the Richmond Urban Density project was approved by the Council in July 2010 and detailed investigation into matters affecting the appropriateness and suitability of higher density development in Richmond was undertaken in 2011-12.

Alongside this, Plan Change 20 (Richmond East Development Area) was undertaken jointly with Nelson City Council in 2012. The change provided for limited residential intensification in suitable locations in Richmond east, and limited serviced rural residential expansion in

Richmond East on the south east hill slope fringe of Richmond, where this is not limited by identified natural hazards. At the same time Nelson Resource Management Plan Change 18 provided for residential and rural residential expansion on rural land in Nelson, south of Champion Road.

During the period 2007-11 the global financial crisis occurred and its effects continued for several years. Council had other planning priorities during this time, hence the Richmond intensification Plan Change was not progressed significantly.

2.4 Richmond Urban Density Investigation Report

Planning advice was provided to Council in 2011 in the development of Plan Change 20, about the desirability of investigating the opportunities for higher density residential development in Richmond. During 2011-2012 interviews were held with local estate agents and a valuation professional, in order to canvas their opinion on the suitability of higher density housing in Richmond. Information noted during these interviews is available upon request.

At the end of 2012, the investigations into higher density housing for Richmond culminated in the *"Richmond Urban Density Investigation report",* taken to Committee on 13 December 2012 (see http://www.tasman.govt.nz/tasman/projects/environmental-projects/richmond-residential-density-project/documents/ . This report and associated maps sought to help Council develop a vision for the growth and development of Richmond that included opportunities for higher density development.

Higher density development was defined as *"a wide range of housing forms that would result in density greater than the conventional development in Richmond"* which had been, at that time, 3-or 4-bedroom dwellings on sections of 600 sqm or greater. Market demand for higher density residential development was then limited, but it was recognised that demographic trends towards an aging population and reduced household size would be likely to result in a relative increase in demand for smaller properties.

The outputs from the 2012 Richmond Urban Density Investigation Report have been integral to this proposed Plan Change, but they have been updated. The report delineated a number of character areas within Richmond's inner area based on the following characteristics: age of housing stock; market price of housing stock; topography; road pattern; natural amenity – views, "greenness"; and degree of infill or redevelopment. The report also used a large number of criteria to assess suitability for higher density development in these character areas. These included distance from town centre; redevelopment potential; ratio of land value versus capital value on each lot; topography; hazard risk (geological or sea level rise); proximity to public transport. These have been added to and updated during subsequent analysis. For example capital values have changed significantly since 2012; the infrastructure rating of key areas close to the town centre was reassessed using a weighted scoring system as this criterion was felt to be particularly important; and "Walkscore.com" was also consulted to check the walkability of various addresses. Annex A provides the results of this detailed analysis.

All locations within Richmond have the potential to absorb some form of denser residential development appropriate to the character and amenity of the neighbourhood. The maps (see Annex B) provide the results of the criteria based assessment. Map 17 "medium density suitability" highlights those areas found to be most suitable. One location (the Croucher Street area 2A) rated particularly well against the criteria used, as well as walkscore.com and was hence considered to be "highly suitable" for a range of denser development forms. Some other character areas when assessed against the same criteria

emerged as "suitable" and these include the Queen Street East character area (3) Cautley Street area (5) and Waverley/Oxford streets area (4).

The Gladstone area character area (21) was initially found to be potentially "suitable" but on closer examination was found to comprise only a small area of residentially zoned land comprising allotments of smaller sizes. This area also suffers from a relative lack of amenities within 100 metres when compared with other suitable character areas and additionally may increase the number of vehicles entering directly onto the State Highway if intensified. This would be detrimental to the through traffic function of this highway. For these reasons the Gladstone area was classified as of "limited suitability".

The Croucher Street 2B area is recommended as having limited suitability for intensification. This is because at high tide, the stormwater system underneath the state highway (Richmond deviation) is quarter full of seawater even without rain. If heavy rain occurs it leads to the over filling of drain. The Richmond deviation has in effect created a barrier that leads to ponding of water in this area, for which there is no easy affordable solution. This is why the area currently has "limited suitability" for intensification.

2.5 Urban Density questionnaire and Housing Choice Symposium 2013

During the first half of 2013, TDC consulted with the local community to obtain its views on the type of higher density housing that could work well in Richmond and in which locations it might be suitable. The Council was also interested in feedback on the reasons it was looking into higher density forms of housing and if, and how, the Council should encourage higher density development.

Overall the feedback on the urban density questionnaire was very positive, with a total of 55 responses (see http://www.tasman.govt.nz/tasman/projects/environmental-projects/richmond-residential-density-project/documents/). Only 11% of the submissions were completely negative and it was generally felt that Council could do more to encourage higher density forms.

Following feedback from the community, Council organised a Symposium in 2013 to discuss choices for increasing the residential density of Richmond with groups and individuals involved in the building and delivery of housing in Richmond. Around 30 professionals attended, comprising surveyors, developers, house builders, Housing Trust representatives, real estate agents, planners, Iwi, architects and landscape architects.

As the record of the event highlights (dated 21st November 2013), themes that came out of the plenary discussions included:

- Adequacy and provision of water infrastructure in Richmond? Preliminary results at that time from engineers' investigations showed no major infrastructure impediments in the 'preferred' areas for high density within existing zones. Some minor upgrades are required
- For Richmond high rise constitutes two storeys which, currently, the TRMP allows. Allowing three storeys is being considered
- Demand exists for small plots of land with small homes
- There is a desire to showcase some innovative models
- Flexibility in the TRMP rules for residential development is required
- Time and the market is important for developers, not just the TRMP rules;
- Demand is thought to exist for redeveloping land close to the town centre for high density;
- Demand is thought to exist for accessory units but the associated development contributions are high;

- Poor quality residential amenity with higher density need to be guarded against
- 'Housing areas' and residential communities, not just subdivisions need to be created.

One of the presentations by an external representative concluded that there was a desire for a local stakeholder forum with Council to look at improvements to the Tasman Resource Management Plan's (TRMP) rules and processes. This suggested process to assist with governance was duly implemented and the Richmond Residential Advisory Group (RRAG) was formed in 2014.

2.6 Richmond Residential Advisory Group 2014

The Richmond Residential Density Advisory Group (RRAG) was appointed by the Council's Environment and Planning Committee in February 2014. After a period of seeking nominations from the public for membership (as well as writing individually to eight Iwi), Council appointed the following members to the group in July 2014:

- Jess Breeze (Elder Abuse Neglect Prevention Advisor) - Community interest and the Elderly
- Toni Lane (Branch Manager, Nelson Building Society) - Business Community and Richmond Town Centre interest
- Richard Carver (Architect) - Urban Design and Architecture
- Paul Newton (Surveyor) - Surveying and Subdivision Design
- Jackie McNae (Resource Management Consultant) - Resource Management
- Blue Hancock (Valuer) - Valuation
- Graham Vercoe (Head of GJ Gardener Homes) - Developer and Builder
- Mike Murphy (Real Estate Agent/Developer) - Real Estate Agency and Development
- Michael Higgins (Councillor) - Council and Community

While some iwi expressed an interest in the project, none could offer resources for the group at that time. Six meetings were held between September 2014 and August 2015. Not all members attended all meetings due to time pressures. Three members dropped out from the group after early meetings. The six remaining external members continued their involvement across the year. Council staff representation was sustained throughout the process from Resource Consents (Land use and subdivision), Environmental Policy, Building Consents, and Engineering. Lisa Gibellini (senior planning adviser) from Nelson City Council attended RRAG meetings as an observer and provided information concerning Nelson's approaches to intensification. An external facilitator, Ian Munro, was present for most meetings, offering urban design expertise as well as facilitation. Internal facilitation was used for one meeting.

During the six meetings the following topics were discussed:

- RRAG process, outcomes and roles
- Location of medium density housing
- Form of medium density housing
- Feasibility of medium density housing and non-regulatory options
- TRMP policy framework and other regulatory processes that will support increased density
- Overall conclusions and recommendations of the group as presented in this report.

A report from the RRAG was produced *"Recommendations to Tasman District Council on Richmond Residential Intensification"* in September 2015, containing the RRAG's recommendations to Council (see

http://www.tasman.govt.nz/tasman/projects/environmental-projects/richmond-residential-density-project/documents/). In October 2015 Council approved the RRAG report for use for pre-notification consultation, based on the recommendations of the group's report with which Council agree.

2.7 Pre-Notification Consultation 2016

Using the recommendations of the RRAG report, staff undertook pre-notification consultation with the community in February 2016 for a proposed plan change focussing on an intensive residential zone for Richmond. The Plan Change was named "*Richmond Housing Choice*". An information booklet and feedback form was circulated. (See http://www.tasman.govt.nz/tasman/projects/environmental-projects/richmond-residential-density-project/). The information highlighted the planning rules that could change, the RRAG recommendations, the reasons for considering higher density residential development and sought feedback on these ideas.

Two open days were held during the consultation period of February on this project, one in the Richmond Mall and one in Richmond Library. The Mall was the busier day with 113 members of the community attending the events in total. In addition to the feedback gathered at these events, 13 feedback forms were received on the proposal. Ten of these forms were positive overall, one was negative and two were neutral. At the events themselves the vast majority of visitors were supportive of the proposals.

While the intention was to notify the Plan Change in 2016, a shortage of environmental policy staff resources meant this was not possible. In the meantime, however, Council went through the RMA Schedule 1 process to change the Tasman Resource Management Plan's rules governing residential building coverage in Richmond, Motueka, Brightwater and Wakefield. That Plan Change allowed buildings to cover 40 per cent of the site, up from the previous 33 per cent. Plan Change 59 became operative in March 2016.

2.8 2017 Tasman Housing Accord

Council signed a second housing accord with Government in May 2017. The accord is intended to result in increased housing supply and improved affordability of homes in the Tasman District. In relation to the aim of increasing housing supply, one of the actions in the accord is to progress the Richmond Housing Choice Plan Change.

3.0 Issues Surrounding the Plan Change

The collaborative process involving RRAG identified a small number of main issues which were examined during the meetings held. Within each main issue a number of sub-issues exist. These same issues have been used in the option evaluation that follows in section 5.0.

The main issues are:

- The location of intensive housing in Richmond
- Intensive dwelling form
- Economic feasibility of intensive housing in Richmond
- Relationship with TRMP's existing policy framework

Where the phrase 'intensive housing' is used, this is still medium density. Intensive is used to distinguish the type of housing proposed around Richmond's town centre from other existing forms of medium density housing in Richmond enabled by the TRMP being compact and comprehensive housing. Chapter 2 of the marked up Plan Change sets out definitions and any changes proposed to those. These include standard density, medium density and intensive development.

Within each of these main issues a number of sub-issues exist as follows:

Main Issues			
Location of intensive housing in Richmond	**Intensive dwelling form**	**Economic feasibility of intensive housing in Richmond**	**Relationship with TRMP's existing policy framework**
Sub Issues			
Enable intensive housing in all of Richmond's Residential zone, or all of the Residentially zoned areas in Tasman District?	Use of the existing Urban Design Guide appended to the TRMP (appendix 2) for intensive housing in the Richmond Intensive Development Area (RIDA)	Commercial feasibility of intensification in Richmond	Notification versus non-notification
Criteria based assessment for intensive housing in areas of Richmond around town centre (including stormwater), to define a Richmond Intensive Development Area (RIDA)	Application of rule frameworks for medium density of other NZ Councils to inform the Plan change	Development Contributions	Activity status
Both greenfield locations and brownfield locations in Richmond for medium density housing	Enable smaller minimum lot size and increased building coverage with the Plan Change	Contribution of Richmond permitted stormwater pathway to commercial feasibility	Medium density housing is already enabled via Compact and Comprehensive

			residential provisions in the TRMP (i.e. "do-nothing scenario")
	Number of storeys/building height	Reserve Financial contributions	
	Minor dwelling/Granny flats/multiple kitchens	Developers' covenants	
	Setbacks		
	Detached versus attached		
	Building length (wall recess provision)		
	Car parking requirements		

4.0 Statutory Framework for a Plan Change

"S32 evaluations under the RMA do not take place in isolation, but are part of a wider RMA framework that sets the purpose, principles, roles, responsibilities and scope for plan-making" (MfE "A guide to section 32 of the RMA 1991" (2014) p. 10. Any plan change must be assessed in terms of Part 2 of the RMA (purpose and principles), including sections 5, 6, 7 and 8 and Part 5 of the RMA (Standards, policy statements and plans).

S.32 (1) (a) of the RMA requires an examination of the extent to which the objectives of the proposal are the most appropriate way to achieve the purpose of the RMA.

4.1 Part 2 RMA (Purpose and Principles) – sections 5, 6, 7, 8

Section 5 - Purpose

To establish whether the Plan Change promotes sustainable management of natural and physical resources, in accordance with section 5 of the RMA, it is necessary to assess the extent to which the proposal enables the provision for the social, economic and cultural wellbeing needs of the community as well as their health and safety, in relation to the use of these resources. It is also necessary to assess the extent to which it avoids, remedies or mitigates adverse effects on the environment and the extent to which it safeguards the life supporting capacity of air, water, soils and ecosystems.

The option evaluation in this report (section 5.0) assesses costs, benefits and risks of different options. It concludes that by enabling intensive housing around Richmond town centre, greater housing choice and potentially greater affordability could result for the community. While home ownership in Tasman has been high over the long term, affordability has worsened in recent years. The aggregate housing affordability index (integrating median dwelling prices, average weekly income and average mortgage rates across all housing market segments) as prepared by Massey University in late 2016 for Tasman (as part of Nelson-Tasman-Marlborough regional cluster), shows that affordability for Nelson/Marlborough continued to deteriorate by 6.1% in 2016, when compared with an annual national improvement in affordability of 1.7%. The report finds the decline in affordability to be driven mainly by the continued spill over of the Auckland house price levels into the regions.

Non-TRMP incentives proposed for intensification such as an Officer proposal to reduce DCs for smaller, denser dwellings would improve the economic wellbeing of the community if they were applicants. Also the Plan Change seeks to reduce cost, uncertainty and risk for parties interested in pursuing such applications.

Environmental effects for neighbours will be managed by the rule framework put in place to protect the amenity values of the community, while recognising the need for more intensive housing in some locations.

The Plan Change covers land already residentially zoned therefore "urban" in nature. There would therefore not be a threat to the life supporting capacity of air, water, soils and ecosystems as this would have already been considered at the Residential zoning stage. Stormwater specified flows have been considered extensively in the drafting of the Plan Change.

Section 6 - Matters of National Importance

Section 6 lists matters of national importance to be recognised and provided for by all persons exercising functions and powers under the Act. Under the 2017 RM Amendment

Act, an additional matter was added (6 g) on the management of significant risks from natural hazards. This section of the Act has been fully assessed but under the scope of the proposed Plan Change and its physical extent to the Richmond Intensive Development Area, it is not considered these matters of national importance are affected.

Section 7 – Other matters

Section 7 provides a number of other matters that it is necessary to have particular regard to.

The recommendations of the original 2003 Richmond Development Study, for Central Area Intensification noted that a benefit would be efficient use of existing resources. The locations identified as suitable for intensive housing are well serviced for infrastructure, amenities and services and are well connected for transportation (including public), in close proximity to the shopping centre. The exception is existing stormwater infrastructure and this is addressed separately in this report.

The Tasman Growth Demand Supply Model is the District's long term development planning tool which plans for the rollout of land for residential and business use in the District's 17 settlements. Tasman District has witnessed population growth since 2001 with 5.66% between 2006 and 2013. Most recent SNZ population projections (14th Dec 2016) for Territorial Areas show under the medium trend that population growth is forecast to rise by 8.6% between 2013 and 2023. There is also increased demand for single occupancy households, due to growth in one person households and household size is correspondingly decreasing. This increased demand for housing is putting further pressure on currently rural zoned land around Richmond, a significant part of which is high quality productive land. This Plan Change seeks to offer an alternative to further urban sprawl by proposing intensification of residentially zoned land around the town centre. This is also an efficient use and development of natural and physical resources.

Residential intensification may also lead to increased efficiencies of the end use of energy by giving more people a choice to live closer to Richmond centre, reducing travel distances and consumption of fuel. It may also encourage greater use of the existing bus service, which is proposed to have more conveniently located bus stops, following its rerouting upon completion of the Queen Street Reinstatement project which is currently underway.

Maintenance and enhancement of the quality of the environment and of amenity values has been an important consideration in the development of this Plan Change. Officers have tested the proposed rules against some recently submitted intensive proposals in Richmond to confirm they are generally achievable. The proposed rules have also been tested as to how they work when adjoining a non-intensive (standard residential) property boundary within RIDA and therefore need to meet existing rules. The rules are considered appropriate to achieve on site amenity in this urban context.

Section 8 – Treaty of Waitangi

The Plan Change does not raise any issues concerning the treaty of Waitangi.

The following eight local iwi were informed of the proposal to create a stakeholder advisory group in 2013 but unfortunately lack of resources prevented a candidate being put forward by the iwi: Ngāti Kōata, Ngāti Rārua, Ngāti Kuia, Ngati Apa ki te Rā Tō, Ngāto Tama ki Te Tau Ihu, Ngāti Toa Rangatira, Rangitāne o Wairau and Te Ātiawa o Te Waka-a-Māui.

Resource Management Amendment Act 2017 – Iwi consultation

In accordance with the Resource Management Amendment Act 2017, (s.32 4A and Schedule 1 clause 4A) the same eight iwi have been consulted on a draft of the Plan Change (prior to notification) and feedback has been received from Ngāti Toa and Ngāti Koāta. The feedback concerned existing wastewater infrastructure not being able to cope; supportive of the proposal for on-site detention of stormwater (although concerns over potential hazard from sedimentation in large rainfall events); and that new houses should hold rainwater.

In relation to wastewater, there are no plans for further investment in wastewater reticulation within RIDA arising from growth in the draft 2018 Long Term Plan. Officers' criteria assessment of 2014 and updated in 2016 of the Richmond Intensive Development Area looked at all 3 waters. Wastewater scored moderately in terms of supporting higher density. There are no issues with wastewater overflows and no known issues with capacity within the proposed RIDA, for the expected levels of intensification/development for the next 10-20 years – as per the revised Growth Demand Supply Model.

Council will monitor how development actually rolls out over that time to ensure this remains the case. i.e. if a higher level of intensification than planned occurs, or there is an unusually high level of intensification concentrated in a particular area, that status may change and require review. The Growth Model is reviewed every 2 years in any case.

Downstream of RIDA wastewater network - there is a "wet weather" issue with capacity at Beach Road during severe storms, which is primarily driven by stormwater inflow and infiltration into the wider wastewater network. This area eventually drains to this site, as does all of Richmond, Brightwater and Wakefield (including all developments in these areas). Engineering is undertaking an inflow and infiltration programme to reduce this problem, and expects it to be under control in the next few years. The bulk of this issue is not a consequence of new development as it largely is an existing problem. Never-the-less, Engineering staff intend to control wastewater from new connections/developments during storms to ensure it doesn't worsen the problem. Essentially by holding wastewater discharges from new connections during storms until capacity is free in the downstream network. This can be achieved by the installation of pressure sewer pumps and chambers in new developments.

In relation to sedimentation from large rainfall events, the proposed detention tanks and infiltration devices would be capable of screening out larger sedimentation during smaller rainfall events. The devices are then required to be maintained to ensure that they function and do not become blocked and hence a rule would be required to ensure maintenance is undertaken. In terms of construction of these denser dwellings, Council is drafting a set of sedimentation control guidelines that would apply to development such as these. The guide will be consulted on early 2018.

In relation to the issue of re-use of rainwater, there is no concern in this area relating to the capacity of the existing Council water supply. Reuse of rainwater for a development of this type would be unlikely to place any less demand on Council's infrastructure.

The Tasman Resource Management Plan (TRMP) has no record of any cultural heritage sites in the area being considered for intensification and the New Zealand Archaeological Association website has no record of any wāhi tapu sites or sites of significance in the area. Council's land ownership records show that Iwi own no land in this same area. Also, the changes do not affect the current TRMP provisions available to Iwi to protect wāhi tapu and significant sites.

The proposal to intensify residential development and thus increasing impervious surfaces leading to greater run-off of stormwater may impact on water quality of streams in the area. Consideration has been given to how such effects can be managed e.g. infiltration device requirements and these are discussed later in this report.

Should further feedback be received from iwi, the s.32AA further evaluation report will summarise all advice concerning the proposal received and summarise the response to the advice.

4.2 Part 4 RMA (Functions, powers and duties of Central and Local Government)

Sections 30 and 31

Section 30 specifies the functions of Regional Councils under the RMA and was recently amended under the 2017 RM Amendment Act.

Relevant to s.30(i)(e) potential environmental effects arising from more intensive use of Residentially zoned land are considered fully in section 5 (option evaluation) of this report - in particular the effects on stormwater run-off and the ability of Council's network to cope.

The newly added subsection 30(1)(ba) is particularly pertinent to this Plan Change. Intensification within areas close to Richmond town centre is being proposed as a way of meeting some of the increased demand for housing in the District. The contribution intensification could make has been considered in recent reviews of Council's growth model, where a modest amount has been allowed for initially, increasing by years 2022-2028, in order to not over estimate potential supply from this source. The success of this Plan Change will not be known for some years. Supply from other locations in Richmond has been identified in order to fully meet expected housing demand.

Section 31 of the RMA specifies the functions of territorial authorities under the RMA, which include the review of objectives, policies and methods to achieve the integrated management of the effects of the use, development or protection of land and associated natural and physical resources of the District (s. 31(1)(a)). The RM Amendment Act 2017 added a new subsection 31(1)(aa) which adds to Territorial Authorities' functions *" the establishment, implementation, and review of objectives, policies, and methods to ensure that there is sufficient development capacity in respect of housing and business land to meet the expected demands of the district."*

Territorial authorities also have the following functions:

"(1) (b) The control of any actual or potential effects of the use, development, or protection of land, including for the purpose of:
- *(i) the avoidance or mitigation of natural hazards; and*
- *(iia) the prevention or mitigation of any adverse effects of the development, subdivision, or use of contaminated land*
- *(iii) the maintenance of indigenous biological diversity:…….*

(c) repealed

(d) The control of the emission of noise and the mitigation of the effects of noise:

(e) The control of any actual or potential effects of activities in relation to the surface of water in rivers and lakes:

(f) Any other functions specified in this Act.

(2) The methods used to carry out any functions under subsection (1) may include the control of subdivision."

The potential effects of the more intensive use of residentially zoned land have been discussed at length during the collaborative processes. They have subsequently been assessed in the option evaluation and provisions incorporated in the Plan Change to control these.

The recent amendment to s.31 is pertinent to this Plan Change. This Plan Change includes some changes to the objectives of urban environment effects (chapter 6), policies and methods in order to encourage a wide range of living opportunities in locations where adverse effects are avoided, remedied or mitigated. Policy changes are proposed to encourage intensive residential development close to town centres and urban facilities. This is consistent with Council's function under s.31(1)(aa): enabling intensification will add to Richmond's housing capacity.

4.3 Part 5 RMA (Standards, policy statement and plans)

Sections 74 and 75

These sections set out the "*Matters to be considered by territorial authority"* for a Plan Change and "*Contents of district plans*". For a Unitary Authority matters to have regard to and matters the District Plan must give effect to include:

- any national policy statement, national planning standard and any regional policy statement
- any management plans and strategies prepared under other Acts
- regard to the extent to which the district plan needs to be consistent with the plans or proposed plans of adjacent territorial authorities
- its obligation to prepare an evaluation report under s.32 and to have particular regard to that report.

Relevant National Policy Statements

National Policy Statement on Urban Development Capacity (2016)

All Local Authorities are required at all times to provide sufficient residential and business development capacity for the short (0-3 years), medium (4-10 years) and long (11-30 years) terms (Policy PA1). Policy PA2 requires Local authorities to satisfy themselves that other infrastructure required to support urban development are likely to be available. This would include stormwater infrastructure for example.

Local Authorities must by the end of 2018 complete out a capacity assessment that estimates the demand for dwellings, including the demand for different types of dwellings, locations and price points, and the supply of development capacity to meet that demand, in the short, medium and long-terms. (Policy PB1).

In relation to this proposed requirement for a capacity assessment, Tasman District Council already has its own Growth Demand and Supply Model (GDSM) which was first implemented in 2005. The GDSM is a district wide long term planning tool, providing population and economic projections for all its settlements and expected demand and supply for land and services for each settlement. It is reviewed at least every 2 years. The most recent review in 2016/17 anticipates that infill development can make a contribution to the supply of residential lots available in Richmond in the future, either through this Plan Change, subsequent Plan Changes or through resource consents.

There are also significant quarterly monitoring requirements under the National Policy Statement (NPS) and these include indicators of housing affordability. There is a known housing affordability problem in Tasman District, as recognised in the 2017 Tasman Housing Accord. The District's housing supply is dominated by traditional low density housing and

this Plan Change seeks to expand the housing choice on offer in Richmond, for the smaller households. This will enable different and denser forms of housing development in parts of Richmond which could be more affordable.

National Policy Statement for Freshwater Management 2014

This NPS is relevant in respect of the receiving environment for the initial RIDA development area, which is the lower Jimmy Lee Creek (known as Beach Road Drain), Vercoe's Drain and the Waimea Estuary, as the RMA defines a river to include a stream. Relevant key objectives and policies of the NPS include the following:

> Objective A1 of the NPS, which is to safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the development of land and discharges of contaminants. Objective A2 of the NPS is also relevant which is to maintain or improve the overall quality of freshwater. Policy A1 requires Regional Councils making or changing plans to ensure the plans establish freshwater objectives.

Proposals are discussed in subsequent sections of this report in relation to a rule framework and how the quality of groundwater could be protected with intensification, by use of infiltration devices.

Tasman Regional Policy Statement

The Tasman Regional Policy Statement (TRPS) recognises at issue 5.1 that urban expansion onto adjacent areas of highly productive soils in some parts of the District has resulted in their irreversible loss. Horticulture is a significant economic activity in the District and areas of highly versatile land for such uses are limited. This creates a tension in a time of continued population growth. The TRPS states at issue 5.1 *"this may require a slowing of growth on the urban fringe by encouraging more medium density development in the core of the major centres, or by containing peripheral growth".*

While acknowledging constraints exist to the extent intensification can make to Richmond's housing supply, this Plan Change seeks to offer greater housing choice and contribute to the rollout of housing land in the Tasman GDSM, as required for Richmond.

Objective 5.1 and Policy 5.1 of the TRPS seek the avoidance of the loss through urban development, of the potential of land having high productive value to meet the needs of future generations.

Long Term Plan 2015

The latest Long Term Plan, prepared under the Local Government Act 2002 has been considered in preparing this Plan Change. In particular, the activity management plans for infrastructure (stormwater, water and wastewater) and the planned growth for Richmond which is informed by the Tasman Growth Demand and Supply Model. The latest Long Term Plan 2018-2028 is currently being prepared and includes a review of development contribution policy.

Adjacent Territorial Authorities

The TRMP, at chapter 3 identifies significant cross-boundary issues as including (3)(c) consistent management of effects of urban land use activities in the Nelson-Stoke-Richmond urban area including space needs for residential purposes. The TRPS also refers to cross -boundary issues at Objective 13.1 and Policy 13.2. Council has consulted

extensively with Nelson City Council over the Plan Change. A senior officer from Nelson City Council attended RRAG meetings as an observer and provided information concerning Nelson's approaches to intensification. Officers have considered Nelson's approach to its policies and rules on residential intensification in preparing this Plan Change and have attempted to secure consistency where appropriate.

Conclusions

This statutory assessment concludes that the Plan Change objectives meet the requirements of sections 5, 6, 7 and 8 of the RMA (part 2); sections 30 and 31 of the RMA (part 4); and sections 74 and 75 of the RMA (part 5).

4.4 Section 32 RMA (Part 4)

Clause 5 (1) (a) of Schedule 1 of the RMA requires that an evaluation report for a proposed plan must be prepared in accordance with section 32 and particular regard be had to that report when deciding whether to proceed with the plan. The same requirement is also provided by s.74 (1) of the RMA (matters to be considered by territorial authority).

> *Section 32 evaluations aim to transparently communicate the thinking behind RMA proposals to the community and decision-makers. They tell the 'story' of what is proposed and the reasoning behind it. Decision makers then have clearly communicated, sound policy analysis on which to base their decisions about resource management issues.* ("A guide to section 32 of the RMA", (2014) MfE p. 10).

Section 32 requires Council to evaluate proposed changes to the TRMP and decide firstly, whether the objectives or purpose of the proposed changes are the most appropriate way to achieve the purpose of the Act. Secondly, whether, after assessing their efficiency and effectiveness and identifying other reasonable options, the proposed changes to policies, rules or other methods (the provisions) are the most appropriate for achieving the objectives of the proposal. In assessing effectiveness and efficiency, section 32 requires an assessment of the benefits, costs and risks where there is uncertainty, of the provisions' environmental, economic (including employment and growth), social and cultural effects.

Section 32 evaluation is an evolving process and this evaluation is the starting point. The remainder of this report considers the requirements under s.32.

5.0 Are the proposed Change provisions the most appropriate way of achieving its objectives?

In order to evaluate the appropriateness of provisions of the proposed change, this part of the report assesses:

- Other reasonably practicable options
- Effectiveness and efficiency of the proposals including benefits, costs and risks from the environmental, economic, social and cultural effects
- Reasons for the proposed change

The evaluation table that follows provides issue headings under 'options' drawn from the subjects discussed during the RRAG meetings and included in its report. This assists with grouping the reasonably practicable options under each issue and assessing the costs/benefits/risks that may flow from those different options. These issues are:

1. Location of intensive housing in Richmond
2. Intensive dwelling form
3. Economic feasibility of intensive housing in Richmond
4. Relationship with TRMP's existing policy framework

In accordance with s.32 (1) (b) the following table identifies other reasonably practicable options for achieving the objectives of the Plan Change – summarised in section 3 (drafting outline) of the report. It also assesses the efficiency and effectiveness of the provisions.

5.1 Issue: Location of Intensive Housing in Richmond

Options	Costs of Environmental, Economic, Social and Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
Option: Enable intensive housing in all of Richmond's Residential zone, or all of the residentially zoned areas in Tasman District				
Issue (i) Associated infrastructure implications	Enabling intensive housing throughout all Richmond or all the Residentially zoned areas in the District may require significant water (stormwater, wastewater and water) servicing investment, to adequately manage effects. At the very least, with known primary stormwater capacity constraints in Richmond, significantly more verification would be required of flowpaths in order to establish the impact of intensification. Realistically such modelling needs to be staged and prioritised by area due to the scale of work and cost. There may be further investment required in transport infrastructure also (public and private) and where intensification affects roads outside the control of TDC this may require investment from other road controlling authorities.	Enabling intensive housing throughout Richmond or throughout Tasman would provide much greater flexibility for the market and increase housing choice and affordability	Redevelopment of houses to a higher density can create servicing demands e.g. stormwater run-off due to increase in impervious surface by higher coverage. Significant risks arise from increase in density in areas that are currently unsuitable in infrastructure terms. Richmond has witnessed a long duration rainfall event in 2011 and a short high intensity event in 2013. The drainage network for Richmond will take 80-100 years to upsize through renewals. Modelling has therefore been undertaken to define and defend flowpaths but this has only been done for areas around the Richmond town centre so far due to resource implications. To permit further increased coverage District wide could pose serious risks e.g. flooding where existing infrastructure is unable to cope.	The inability of e.g stormwater networks to cope Richmond – wide or District wide, with increased density would significantly reduce the effectiveness and efficiency of such a policy framework approach. The activity status for such applications would need to be at least Discretionary (in the absence of infrastructure certainty) and in reality many may not be consented. This is therefore not considered an efficient approach as wide-scale infrastructure provision would be very costly to Council and uncertainty would exist as to how/when it is funded.

Options	Costs of Environmental, Economic, Social and Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
Issue (ii): Community response to intensive density throughout Richmond or throughout Tasman	This has already been tested with residents living in Richmond East with Plan Change 20 where some in the community wanted 2000 sqm as a minimum lot size; there was resistance to subdivision to smaller lot sizes. In parts of Richmond East some residents wanted to retain the Rural residential zone and this was done. Widespread intensification through Richmond is therefore unlikely to be acceptable to the community. Increased density has only been tested for limited locations in other settlements of the District (e.g. Motueka West and Mapua). Therefore a likely response is not known and while it could be appropriate, much further investigation and consultation would be necessary.	Enabling intensive housing throughout Richmond or the Residentially zoned land in the District would provide much greater flexibility for the market and increase housing choice. This objective can possibly be pursued over time via a staged approach.	Such a Plan Change could be likely to be opposed by significant numbers of residents, leading to a prolonged Schedule 1 RMA process and large costs for Council	Unlikely that such a Plan Change would survive in its drafted form through the Schedule 1 RMA process, hence ineffective and an inefficient use of ratepayers' money.
Option: Criteria based assessment for intensive housing in areas of Richmond around town centre to define a Richmond Intensive Development Area (RIDA)				
Issue (i): Management of environmental effects	Environmental effects may result from rezoning only parts of Richmond for intensive housing and these need to be anticipated and addressed by the rule framework.	Evaluation matrix approach containing 18 assessment criteria enables different parts of Richmond to be assessed	Investment risk is lessened for Council with the criteria based assessment approach. It allows for investment to occur in services in areas that are suitable	Effective approach to identifying areas suitable for intensive housing in Richmond. A Plan Change still relies on the market to provide the type of housing it

Options	Costs of Environmental, Economic, Social and Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
		for suitability for intensive housing and for such housing to be provided in areas that are suitable. Such a policy approach would send a clear message to developers that intensive housing is favoured in these areas, thereby providing certainty. The area approach avoids fragmented development and over time the development pattern will become more coherent. It also enables known demand to be met by supply in suitable locations e.g. for the over 50's, single person households, young couples and the elderly.	for intensification and should avoid use of enhanced services not being used by the market. Risk is also lessened of required investment by Council to fix problems caused by increased impermeability due to intensification in unsuitable areas e.g. additional water run –off entering water courses and flood risk on plains Risk of intensification occurring in areas that are not suited is lessened e.g. due to inadequate services. The planning process, which has included the RRAG, a stakeholder group for a period of one year, has helped identify the likely environmental effects of intensification. This enables a policy framework in the Plan Change that addresses such effects, thereby lessening risk of such effects for neighbours	enables. The market is already providing such housing in areas that have been found suitable under the assessment, in advance of the Plan Change being notified. This suggests such an approach is efficient in identifying areas for such housing. The rule framework that accompanies the Plan Change will be tested during the Schedule 1 RMA process and must manage potential environmental effects for neighbours that can arise from intensive housing.
Issue (ii): Community response to intensive housing in areas	Residents living in the areas found most suitable for intensive housing may oppose the Plan Change due to	Regular pre-notification consultation on the Plan Change has been undertaken over a long	The regular pre-notification consultation should lessen the risk of overall opposition to the Plan Change. Information has	Pre-notification consultation has signalled to Council that the community generally is in favour of intensive housing in Richmond.

Options	Costs of Environmental, Economic, Social and Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
of Richmond around the town centre	perception of potential environmental effects.	period, with the most recent exercise highlighting that areas around the town centre were being considered. Feedback has been positive overall. Some environmental effects were raised and these have sought to be addressed in the Plan Change or other strategies currently being prepared by Council e.g. Richmond car parking strategy.	been provided regularly to the community and feedback has so far been positive overall.	By identifying suitable areas for intensive housing in the Plan Change and testing economic feasibility, intensive housing should be enabled in suitable areas that the market is also interested in.
Issue (iii): Required infrastructure/ modelling for services	The identification of suitable areas for intensive housing in Richmond has necessitated investment in verification of stormwater flowpaths for example. This exercise has cost at least $20,000. The cost of not knowing the impacts would be substantially higher however, where homes could be flooded or unanticipated demands for Council services arise. There has been significant stormwater capital investment commenced and planned in the Central Richmond area. This has	It enables infrastructure solutions to be found for discrete areas leading to less investment by Council than if the whole of Richmond was rezoned. Council has a footpath upgrade programme. Investment is planned to both provide footpaths and replace them where needed in some streets around the town centre, in	An evaluation by area of Richmond, concluding with areas most suitable, allows for investment to occur in services in areas that are suitable for intensification. It should lessen the risk of new infrastructure not being used by the market before another renewal is required. So far, there has been limited investment specifically for intensification. However, when renewal or other drivers have created a project, the impact of	The evaluation approach maximises efficiency in providing services for increased density housing, by targeting areas suitable and likely to be attractive to the market. This should increase overall effectiveness of the Plan Change in securing more medium density housing in Richmond. Where investment is underway or planned, account has been taken of the Plan Change proposals, to maximise efficiencies.

Options	Costs of Environmental, Economic, Social and Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
	been driven by the need to protect the town centre from regular inundation. However, the effects of this investment (~$17m 2014-2021) will include reduced flooding in areas in or adjunct to Richmond Intensive Development Area. On site detention of stormwater in certain circumstances and infiltration devices would pose a small additional cost to applicants but it provide certainty of outcome. In relation to wastewater, there are no plans for further investment in wastewater reticulation within RIDA arising from growth in the draft 2018 Long Term Plan. Officers' criteria assessment of 2014 and updated in 2016 of the Richmond Intensive Development Area looked at all 3 waters. Wastewater scored moderately in terms of supporting higher density. There are no issues with wastewater overflows and no known issues with capacity within the proposed RIDA, for the expected levels of intensification/development for the next 10-20 years – as per the	the short, medium and longer term. The Queen Street reinstatement project is currently underway (stage 2). While the project is largely about improving stormwater flow down Queen Street, a new street design is also proposed. This comprises wider footpaths, narrower traffic carriageway and environment improvements. Locations of bus stops are also being improved as well as new stops added in Talbot Street and Queen Street. Facilitated crossings at the Wensley/Queen and McIndoe/Queen roundabouts are also proposed. This investment will assist pedestrian accessibility in the residential areas around the town centre, suitable for intensification.	intensification has been factored into the service design process. Infill due to intensification in Richmond has also been built into the Council's growth demand and supply model.	

Options	Costs of Environmental, Economic, Social and Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
	revised Growth Demand Supply Model. Council will monitor how development actually rolls out over that time to ensure this remains the case. i.e. if a higher level of intensification than planned occurs, or there is an unusually high level of intensification concentrated in a particular area, that status may change and require review. The Growth Model is reviewed every 2 years in any case. Downstream of the RIDA wastewater network there is a "wet weather" issue with capacity at Beach Road during severe storms, which is primarily driven by stormwater inflow and infiltration into the wider wastewater network. This area eventually drains to this site, as does all of Richmond, Brightwater and Wakefield (including all developments in these areas). Engineering is undertaking an inflow and infiltration programme to reduce this problem, and expects it to be under control in the next	Stormwater would be held on site and released gradually, minimising further flood risk. Infiltration devices would ensure quality of groundwater is not worsened in nearby Jimmy Lee Creek, Vercoe's Drain and the Waimea Estuary.		

Options	Costs of Environmental, Economic, Social and Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
	few years. The bulk of this issue is not a consequence of new development as it largely is an existing problem. Never-the-less, Engineering staff intend to control wastewater from new connections/developments during storms to ensure it doesn't worsen the problem. Essentially by holding wastewater discharges from new connections during storms until capacity is free in the downstream network. This can be achieved by the installation of pressure sewer pumps and chambers in new developments.			

Options	Costs of Environmental, Economic, Social and Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
Option: Both greenfield locations and brownfield locations in Richmond for medium density housing				
Issue (i): Implications of locational options	Such different locations and environments require different policy frameworks for medium density housing. It is not 'one size fits all'. Residentially zoned areas in such locations in Richmond may require significant water (stormwater, wastewater and water) servicing investment, to adequately manage effects.	The TRMP currently enables compact housing (medium density) in greenfield locations of Richmond as well as comprehensive housing (medium density) in brownfield locations. A denser zone is needed to enable intensive housing on brownfield around Richmond town centre – and this is enabled by this Plan Change. This enables further housing choice.	Intensive housing may not be provided in brownfield locations since greenfield locations are easier to develop for medium density. Existing provisions in the TRMP do allow for compact housing in greenfield locations – but it has not been popular due to the relatively large minimum site size and the requirement to submit subdivision and land use applications together. This Plan Change reduces this minimum site size to address this issue. It is acceptable to both enable compact housing in greenfield locations and more intensive housing in RIDA.	The proposed Plan Change provisions are providing another choice for a denser form of housing in Richmond. They add to and complement the existing provisions on compact and comprehensive housing in Richmond (and in fact the comprehensive housing provisions that exist District wide.) A policy framework already exists for compact housing in greenfield areas and some of these provisions are to be improved as part of the Plan Change, to reflect feedback from the RRAG, for example, in Richmond South and Richmond West Development Areas, reduce the minimum parent site size for subdivision with lowest level of consent from 5,000 sqm to 1,500 sqm. This is in line with standards for Mapua Special development Area and Mapua Compact Density Residential Area.

Options	Costs of Environmental, Economic, Social and Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
Issue (ii): Existence of amenities/services close to dwellings	On site amenities need to be provided in greenfield areas, where density is increased, as generally these areas are too far from the town centre. If amenities are not provided this could lead to increased numbers of private transport journeys, since public transport is limited in Richmond. Further increasing densities in greenfield areas would not meet demand from the elderly members and single households of the community who have signalled during consultation that they want smaller homes near the town centre and it services and amenities.	The Plan Change provides greater housing choice in Richmond for a wider market. It would enable housing to be provided close to existing amenities and services as evidenced by the character area assessment.	Risk that amenities are not provided in the greenfield locations where medium density occurs under existing provisions. If densities were further increased in these areas, additional amenities would be required.	The Plan Change promotes intensification of brownfield areas where amenities and services already exist and are being improved e.g. access to bus stops. The character area assessment has proven that the areas chosen are therefore likely to be effective in achieving this objective.
Issue (iii) Infrastructure	Further increasing site coverage for dwellings in greenfield areas e.g. compact housing zone, above that currently envisaged by the TRMP may have associated increased servicing costs.	By continuing to invest in greenfield areas as well as brownfield areas, greater housing choice would be provided for residents throughout Richmond.	A more extensive infrastructure investment programme carries with it the risk that larger parts of the District may be over specified in terms of servicing capacity, which may not be used. This leads to a waste of investment and a definite loss of opportunity as Council reaches its debt ceiling and cannot afford to service other areas.	Known demand exists for denser housing close to the town centre. Demand for denser housing on greenfield sites is however less known. This Plan Change in seeking to minimise risk proposes intensification of inner brownfield areas only.

Preferred Options

Having carefully considered the options in relation to location of intensive housing in Richmond, the preferred options across the theme of locational options are for a criteria-based assessment for intensive housing in areas of Richmond around the town centre that is defined within a new Development Area known as Richmond Intensive Development Area (RIDA). The TRMP already enables medium density housing in both greenfield locations and brownfield locations, but this Plan Change seeks to intensify brownfield residential densities around the town centre. This position gives rise to the following specific recommendations:

- The criteria based assessment of residential locations has revealed the following character areas as highly suitable or suitable for intensification – Croucher Street area (2A only), Oxford/Waverley street area (4), Cautley Street area (5), Queen Street east area (3). Refer to Annex B for a map showing these locations.
- Retaining and improving existing TRMP provisions for compact housing in greenfield locations of Richmond (Richmond West and Richmond South Development Areas) and retaining comprehensive housing provisions in brownfield locations adds further to the housing choice available in Richmond. The more intensive housing proposals of the Richmond Intensive Development Area add a further choice.
- Investment that is underway in services will complement the objectives of this Plan Change e.g. new bus service access, footpath upgrades. The risk of investing in infrastructure that may not be used is sought to be minimised by confining intensification to a specific area at this stage.

5.2 Issue: Intensive Dwelling Form

Options	Costs of environmental, economic, social and cultural effects from the proposal	Benefits of environmental, economic, social and cultural effects from the proposal	Risk	Effectiveness and efficiency of the provisions in achieving the objectives of the proposal
Use the existing Urban Design Guide appended to the TRMP (Appendix 2) for intensive housing in the Richmond Intensive Development Area (RIDA)	Part II Appendix 2 of the TRMP comprises an urban design guide which applies to Richmond South, Richmond West, Mapua and Mapua Special and Motueka West Development Areas. Therefore the urban design guidance does not apply throughout the District.	The content of the Urban Design Guide (Appendix 2 to TRMP) was generally liked by RRAG. For RIDA provision for consistency with the Urban Design Guide (Part II Appendix 2) could be a matter for Restricted / Discretionary land use (building construction) consent. The Urban Design Guide contains concepts that can be applied to intensive development, as they can	The urban design guidance provides a basis for assessment of applications but it is appended guidance rather than part of the rule framework. To ensure stricter adherence it would need to be included within the TRMP with a change to objectives, policies and rules. Since there is a risk the urban design guide	Given the urban design guidance is not mandatory, but rather forms an appendix to the Plan and is a guide, the Plan Change includes new rules for intensive development in RIDA. In this way greater certainty over design outcomes is achieved. However consistency with the guide also would achieve improved design outcomes and it requires minor updating in places, to reflect the

Options	Costs of environmental, economic, social and cultural effects from the proposal	Benefits of environmental, economic, social and cultural effects from the proposal	Risk	Effectiveness and efficiency of the provisions in achieving the objectives of the proposal
	The proposed Plan Change has therefore had to amend the Design Guide (Appendix 2), so that it is also applicable for RIDA.	be to standard or compact housing development. Achieving good design outcomes from intensive development is an important objective and by referencing the Guide in the matters for Restricted/Discretionary land use consent, it should be considered during concept design. The guide seeks improved site amenity and efficiency in use of space, all relevant considerations for intensive housing. Minor updating of the Urban Design Guide is also proposed as part of this Plan Change, to reflect the increased density of development that Richmond is now facing. This includes e.g. sensitive positioning of windows in new dwellings to protect privacy	might not be complied with, rules have been drafted for intensive housing in RIDA to ensure that certain design outcomes are achieved.	density of development that Richmond is now experiencing.
Application of rule frameworks for medium density of other NZ Councils to inform the Plan Change	Inappropriate site or building design and amenity costs arising from rule frameworks that are not appropriate for Tasman incorporated in the TRMP e.g. those of denser more urban areas.	Councils were assessed for similarity in key demographics to Tasman District Council using 2013 census and those found most similar were Waipa District, Waimakariri District, Kapiti Coast District, Marlborough District and Gisborne District. Nelson City Council was also examined. Physically the five Districts are not	There is a risk that inappropriate rule frameworks may be incorporated in the TRMP based on other Councils. However careful selection of Councils has lessened this risk, by examining Districts that contain similar demographics to Tasman.	By considering rule frameworks of other Councils, it is anticipated that a consistent policy and rule framework is produced for Tasman that can deliver based on the experiences of others.

Options	Costs of environmental, economic, social and cultural effects from the proposal	Benefits of environmental, economic, social and cultural effects from the proposal	Risk	Effectiveness and efficiency of the provisions in achieving the objectives of the proposal
		similar. The population totals for all five Councils and other demographic features driving household demand are however very similar. The RMPs of the five Council areas were examined and there were a number of themes common to Tasman that have led to a consideration of housing choices. Relevant objectives, policies and rule frameworks were assessed and considered to inform this Plan Change. Such a review has saved 'reinventing the wheel' and enables some of the policy pitfalls to be avoided by learning from previous experience.	These areas are undergoing similar pressures in relation to housing intensification. The resulting rule framework should be appropriate for Tasman.	
Enable smaller minimum lot size and increased building coverage with the Plan Change	To enable intensive housing, lot size and site coverage need to be reviewed in the rule framework. Environmental effects such as poor amenity could be more than minor from such rules by themselves and maintaining privacy is an important aspect of intensification. Rules on lot size and coverage therefore need to sit within an overall coherent framework that addresses	The RRAG process indicated that strong demand exists for smaller sections and houses and reduced garden areas to maintain. Such a rule framework therefore helps maximise the development potential of every site to help meet current strong demand. It may also assist with housing affordability in the District. By introducing a more intensive form of housing, it increases	There is a risk that the proposed rule framework still fails to mitigate adverse environmental effects from intensification. Further community involvement in developing the rules can minimise such risks.	Provided the rules sit within a complementary framework, addressing potential environmental effects, the provisions of the Plan Change should enable intensive housing around Richmond town centre. This could improve housing affordability and housing choice for Richmond.

Options	Costs of environmental, economic, social and cultural effects from the proposal	Benefits of environmental, economic, social and cultural effects from the proposal	Risk	Effectiveness and efficiency of the provisions in achieving the objectives of the proposal
	potential environmental effects arising from other design restrictions, e.g. building envelope, setbacks, outdoor living space, height, building length, etc. to minimise such environmental and economic cost.	housing choice e.g. provides a freehold alternative to retirement villages for the elderly; provides smaller dwellings and sections for single person households.		
Number of Storeys/Building Height	In enabling site design flexibility for developers by increasing permitted residential building height, this may subsequently impact on privacy of neighbours, if the rule does not sit within an adequate framework. This in turn may lead to increased opposition when the Plan Change is notified, delaying the Schedule 1 process. If a significantly increased height was permitted it could lead to residents erecting fences and walls which have their own effect on urban form, street scene, natural surveillance of public spaces etc. A rule has therefore been proposed in the RIDA provisions	In order to support commercial feasibility of intensification, the permitted building height needs to offer some flexibility. For Richmond the RRAG (stakeholder group) recommended 7.5m height (2 storeys), as most demand is for one/two storeys on sites smaller than 400 sqm – currently 5m limit for standard density housing. The correct rule framework, with appropriate boundary standards for example, can maintain privacy for neighbours while enabling intensification. Consideration has been given to further increasing the permitted building height to three storeys, but it is considered that further feedback is needed on this following notification before a decision is made.	A 7.5m height limit already exists in the Plan where it is standard density and sections more than 400 sqm. With intensive housing however, a risk is that privacy could be compromised for neighbours if the rule framework as a whole is not adequate. A comprehensive rule on privacy has been included in the Plan Change, managing setbacks, the building envelope and outdoor living space. It is considered risks are too great currently to increase permitted building height to 3 storeys and that further	The benefits of increased height to two storeys for smaller sections outweigh the costs and risks in RIDA. The provisions have been drafted including rules on protection of privacy, which will protect residents. Existing rules restrict residential building height to 5m on sections less than 400 sqm. This is being increased to 7.5m in RIDA. Consideration has been given to further increasing building height to 10m (three storeys) as a permitted rule, but due to the knock on effect on dwelling size (due to compliance with height to boundary rule) and also uncertainty over public feedback on this issue, it is not proposed as a permitted rule at this stage.

Options	Costs of environmental, economic, social and cultural effects from the proposal	Benefits of environmental, economic, social and cultural effects from the proposal	Risk	Effectiveness and efficiency of the provisions in achieving the objectives of the proposal
	restricting fencing to not higher than 0.8m along the front yard. Fence heights of 1.8m are permitted along internal boundaries.	Previous feedback on number of storeys from earlier consultation exercises was minimal. A small number of people favoured single storey and a smaller number of people preferred two storey. No feedback was provided on heights greater than two storeys. Even if three storeys were not permitted as a Restricted Discretionary activity, an application could still propose this but would be considered as a Discretionary activity status.	feedback is needed on this concept during notification. Permitting 3 storeys (10 m) would likely lead to smaller houses, as the building would be pushed further back into the section in order to meet the height in relation to boundary rule.	This can be reviewed following notification of the Plan Change.
Minor Dwelling/Granny Flats/Multiple Kitchens	Such dwellings would occupy very small lots which increases the density of the built form. The Plan Change is enabling such dwelling forms by allowing more than 1 dwelling per 200 sqm section. Council's current DC policy means that the cost of a second kitchen e.g. downstairs in a property requires DCs that are the same as standard housing, which are disproportional to its impact. Turning a downstairs area into a rentable flat *is* sometimes	An enabling policy framework that permits minor dwellings/granny flats/multiple kitchens could increase availability of housing stock and choice and thus affordability. Such a development can enable elderly parents to live close-by, for which there is known demand. The Plan Change therefore proposes that more than one dwelling is permitted on any site. In theory two very small dwellings could be enabled on one small section but the proposal would	Poorly controlled additional dwellings can lead to inefficient, unpleasant and unhealthy spaces. Some members of the community are installing multiple kitchens unlawfully in any case, due to the development contributions that would be payable. Such instances are uncontrolled, potentially unsafe and uninsurable. The Plan Change provisions contain standards on access, outdoor living, setbacks, heights and privacy and	By facilitating additional dwellings on a site, within a framework of good design standards and the Urban Design Guide, an efficient balance is struck. Possible changes to DC policy during 2017/2018 may result in reduced cost for smaller denser dwellings and allow for a second kitchen to be installed at a lower cost.

Options	Costs of environmental, economic, social and cultural effects from the proposal	Benefits of environmental, economic, social and cultural effects from the proposal	Risk	Effectiveness and efficiency of the provisions in achieving the objectives of the proposal
	happening illegally anyway. If it was more reasonably related to impact people may weigh up the cost with the risk of not being insured and non-compliance.	have to meet all the rule provisions proposed.	should reduce the risk of poor design resulting. The current DC policy review may examine reduced DCs for multiple kitchens, hence lessen the risk of unlawful instances occurring. There is a risk in allowing more than one house per site (intensive development) that very small houses result. However such a proposal would have to meet a number of conditions and would be Restricted Discretionary activity status and therefore could be declined.	
Building Setbacks (privacy)	Side boundary setbacks in the TRMP can lead to inefficient space that is not usable, particularly side boundary setbacks. However if setbacks are inadequate with denser dwellings, adverse effects on neighbour amenity and privacy can occur. Conversely multiple setback requirements can become difficult for applicants to	The Plan Change enables attached and abutting dwellings which require no setback from any other dwelling. General setbacks of 3 m are proposed from the nearest part of any other residential building, in order to protect privacy. In addition the dwelling must be set back at least 4m from one side/rear boundary (outdoor living space may be accommodated	The rule framework is inadequate and privacy is compromised with higher density housing, or that the rule framework is too complicated and it is difficult for intensive developments to comply with limited sized lots. A Building Technical officer and Resource Consents officer were consulted to	The proposed privacy controls are based on existing rules in the TRMP, other Councils' rules and discussions held with the stakeholder group (RRAG). They have been tested by Officers, using live proposals and are proposed as efficient and effective controls while enabling intensification. Instead of proposing a rule on window privacy, an amendment

Options	Costs of environmental, economic, social and cultural effects from the proposal	Benefits of environmental, economic, social and cultural effects from the proposal	Risk	Effectiveness and efficiency of the provisions in achieving the objectives of the proposal
	incorporate in a small development and it can add unnecessary complication.	within this area, if one storey). Height in relation to boundary setbacks must also be complied with, therefore protecting privacy.	see whether the provisions were sufficient/too complicated for applicants to comply with. It was felt that a draft provision on window privacy would not achieve its purpose, could conflict with the Building Act and would create complexity that would be avoided by walls having no windows. It was therefore removed from the draft and decided that individuals should be left to manage their own window privacy e.g. by use of curtains/ blinds. Other privacy rules e.g. setbacks however were found acceptable.	is suggested to the accompanying Urban Design Guide which encourages sensitive placement of windows in dwellings in close proximity.
Detached versus Attached Dwellings	There is apparent stigma historically within New Zealand over attached dwellings, with detached dwellings traditionally more popular. However this perception appears to be changing in line with rising house prices and lack of housing choice.	Attached dwellings can lead to more efficient use of land and lead to an improved design layout. The minimal setbacks required around detached dwellings can result in an inefficient use of space.	Attached dwellings if not designed well can lead to adverse environmental effects e.g. noise. The existing Design Guide (appendix 2 of TRMP) addresses this. Privacy could be compromised with attached dwellings, or even denser detached dwellings but the	By enabling attached as well as detached dwellings, more efficient use of land is promoted. The rule provisions are considered effective in order to enable intensification.

Options	Costs of environmental, economic, social and cultural effects from the proposal	Benefits of environmental, economic, social and cultural effects from the proposal	Risk	Effectiveness and efficiency of the provisions in achieving the objectives of the proposal
	This is a cost that depends on cultural acceptability of attached housing.		proposed rules on setbacks and height in relation to boundary strive to protect neighbour's privacy.	
Building Length (wall recess provisions)	Visual amenity of buildings as seen from the street or adjoining properties is important, increasingly so if development is intensified and second storeys can be viewed. Without a rule requiring a recess or similar, the second storey of an intensified housing development could have an overly dominant massing. Conversely if a rule requiring varied definition of a building length is too onerous, it can impose unrealistic building costs on applicants, e.g. requiring a recess to have a maximum height that is lower than the adjacent building mass.	Usually fences between properties mean neighbours see more of upper storeys or roofs than wall and lower storeys. With intensification therefore it is important to provide a rule that limits visual amenity effects of unbroken wall lengths on the first floor and above. While not wanting to overly restrict the layout of development, a rule that requires a recess for two storey buildings, 12 metres in length would achieve less overall massing along the building's frontage and diversity and aesthetic interest. This would also not pose building costs on applicants that are insurmountable.	A risk may be that such a rule increases further cost of development due to design requirements, however a rule that is not overly prescriptive should not present significant additional costs.	A rule relating to building length of second storeys only of intensive housing, requiring a recess would achieve breaking up of any overly dominant building frontages as viewed from the street or neighbouring properties. It would also provide some aesthetic interest with an intensive development, while not increasing building costs significantly.
Car Parking Requirements	The car parking requirement for standard density and compact density housing is two spaces per dwelling. The same requirement for intensive housing could be frustrated on	Requiring a realistic on-site parking provision for denser housing, where there are other transport options available (i.e. bus) would enable optimal development of these smaller sections.	Risks include stifling intensification due to onerous car parking standards that cannot realistically be met on site, due to reduced section size.	Provide for one parking bay per dwelling and one visitor carpark for three dwellings and every three dwellings thereafter. This approach, together with consideration of parking

Options	Costs of environmental, economic, social and cultural effects from the proposal	Benefits of environmental, economic, social and cultural effects from the proposal	Risk	Effectiveness and efficiency of the provisions in achieving the objectives of the proposal
	these smaller sections. Alternatively to require less on-site parking may lead to insufficient parking generally for residents /visitors, as on street parking in central Richmond is often occupied by employees of town businesses.	Consideration of parking restrictions in adjoining streets would ensure that sufficient parking is available for residents and visitors. The car parking strategy for Richmond is currently being reviewed by Council and is proposed for consultation late 2017.	Conversely by not requiring enough car parking, on street congestion could occur with residents and visitors unable to park near their homes.	restrictions in neighbouring streets is considered an effective and efficient approach.

Preferred Options

Having carefully considered the options in relation to intensive dwelling form, the preferred options across the themes of intensive dwelling form are to introduce new rules that enable an increased density and height of housing in RIDA. This position gives rise to the following specific recommendations:

- For the Urban design guide (appendix 2 TRMP) to apply to RIDA – with minor modifications proposed
- Reviewing rule frameworks of other Councils to inform the Plan Change
- Reduce minimum section size to 200 sqm in RIDA
- Increase building coverage to 50% in RIDA (from the 40% for standard housing in Richmond)
- Increase building height to 7.5m which enables two storeys in RIDA, as a Restricted Discretionary activity. Increased height above this threshold would default to a Discretionary activity
- By adopting some existing successful rules for compact density housing in the TRMP such as outdoor space and applying them to RIDA
- Providing for a number of setback rules and a height in relation to boundary rule to protect privacy
- Enabling minor dwelling/granny flats/multiple kitchens by allowing more than one dwelling per section
- Enabling attached dwellings
- Requiring a recess in a building length at the first storey level, where that frontage exceeds 12 metres, to achieve break up of building mass and aesthetic interest.

5.3 Theme: Economic Feasibility of Intensive Housing in Richmond

Options	Costs of Environmental, Economic, Social And Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
Commercial Feasibility of Intensification in Richmond	Planning rules that significantly increase building costs and/or process costs could render intensification commercially infeasible. Other Council costs (e.g. DCs, RFCs) can affect the desirability of pursuing proposals. The geographical locations for intensification are also critical.	The locations that have been prioritised for intensification have been assessed for commercial feasibility. Redevelopment projects have already occurred in these areas in a non-complying policy environment, confirming that some developers at least believe redevelopment is feasible in Richmond. It is not intended to significantly increase building costs as a result of this Plan Change. Although some extra costs may be incurred if on site detention of stormwater is required, these costs currently arise when seeking engineers' advice on stormwater discharge in Richmond. The new proposed rule provides greater certainty and less risk and time.	The Plan Change rules and/or the locations that are prioritised for intensification, render intensification commercial infeasible. A significant amount of work has been undertaken assessing commercial feasibility of intensification in Richmond to support the Plan Change. Results have varied and in cases have been small % profit or even loss. Yet these same developments are going ahead in Richmond. This led officers to question some of data input into the feasibility spreadsheet by consultants and developer stakeholders. Building costs per sqm for a new dwelling are the single biggest proportionate cost of a housing development and therefore the unit used impacts on the resulting profit enormously. It is considered that if a more realistic unit cost is applied the example intensive developments are commercially feasible.	The geographical areas prioritised, together with the rule framework and other non-regulatory options, e.g. consideration of reduction in development contributions for smaller denser dwellings during a review in 2017/18 of the DC policy, all seek to render intensification in Richmond commercial feasible. That said, DCs only account for approximately 6%-7% of costs of a new housing development so reducing them further will be unlikely to render an unfeasible development feasible. Examples of intensive development in Richmond have been analysed for commercial feasibility and they are continuing in the town. Assumptions that have fed into these feasibilities on building costs are considered to be realistic.

Options	Costs of Environmental, Economic, Social And Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
			Research into building costs was undertaken and it suggested officers' assumptions were correct. Another significant input is the borrowing cost of finance and in some situations the developer has not had to borrow money.	
Development Contributions (D.C.s)	DCs are a cost. Current Council DC policy discourages provision of houses with fewer bedrooms, as DCs are the same for a 10-bed house as for a 2-bed house. DCs are also the same whether one is building on a brownfield or greenfield site. While DCs on average comprise only 6%-7% of feasibility costs, relatively high DCs for small dwellings may discourage their provision.	The SNZ census data suggests that smaller dwellings (with 1-2 bedrooms), on average, have fewer (and older) residents. Therefore there is likely to be a reduced impact on network services for water, wastewater and roading. Smaller dwellings regardless of the number of occupants create less stormwater run-off. Tasman's DC policy is currently being reviewed and Officers propose a discount for high density or small dwellings across the district. If adopted, this may give a strategic direction to the market for more intensive dwellings and assist with commercial feasibility.	Strategic risk that DCs may disincentivise intensification, if they are not applied more equitably. Council is reviewing the policy in 2017 with a decision due by July 2018.	The Plan Change seeks to reduce cost, uncertainty and risk for parties interested in pursuing denser forms of housing in Richmond. Non-TRMP incentives, such as a review of the DC policy to apply a discount to such forms of housing, seek to provide a strategic direction in supporting increased density.

Options	Costs of Environmental, Economic, Social And Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
		It is noted that this is a supporting method for the Plan change outside of the RMA		
Contribution of Richmond Permitted Stormwater Pathway to Commercial Feasibility of Intensification	The lack of stormwater network capacity around the town centre and the usual default to Discretionary activity status for subdivision applications due to stormwater increases cost, time and risk and provides a disincentive to developers.	Following further flowpath verification in Richmond, the Plan Change provisions provide a permitted pathway for stormwater consent in the prioritised areas for intensification. This avoids each applicant having to 'reinvent the wheel' each time. This gives applicants more certainty of outcome and reduces cost, time and risk.	The RRAG made clear that lack of certainty around stormwater was discouraging residential proposals coming forward for Richmond. The Plan Change has attempted to reduce this risk by providing a permitted rule pathway for stormwater for development in RIDA	Following stormwater modelling, a permitted rule has been included in the Plan Change to provide an easier option for stormwater associated with intensification. This seeks to improve efficiency for applicants and reduce uncertainty of proposals. See Annex C for more detail.
Reserve Financial Contributions	RFCs are a cost and may discourage some applicants from pursuing proposals for intensification. RRAG recommended a reduction in RFCs, perhaps 50% for areas suitable for higher density (near the town centre) be proposed on strategic grounds. However a tension exists between reducing RFCs and continuing to provide quality amenity space through intensification. Some of the prioritised areas for intensification are already	To be successful, higher density housing generally needs a higher level of community facilities than lower density. Council is not currently meeting its desired levels of service for reserves in Richmond, both in terms of reserve area per head of population and proximity of reserves to residential dwellings. Further intensification may exacerbate this situation. Consideration may need to be given to the provision of additional urban open space in association with any intensification	While payment of RFCs may discourage intensification proposals from coming forward, another risk is that further intensification may place further demands on community services in Richmond. Council is already not meeting its desired levels of service for Richmond.	In opting not to recommend a reduction in RFCs staff seek to ensure that appropriate levels of community services are provided in line with anticipated intensification in Richmond. It is noted however that the Resource Management Amendment Act 2017 requires Councils to remove RFCs within 5 years and hence they will be collected in future under the Local Government Act rather than the RMA.

Options	Costs of Environmental, Economic, Social And Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
	deficient in amenities e.g. parks and reserves. A reduction is not recommended in RFCs as this is seen as the benefits of charging RFCs outweigh the cost. If areas of Richmond are to be developed more intensively for housing, it is important that Council can provide the services and public amenity space.	in order to improve our current and future levels of service. Council is close to meeting the desired LOS for most other facilities in Richmond. The exceptions are recreation centres, neighbourhood reserves, cemeteries and toilets in parks and reserves. These assessments against Level of Service are 2013 census based and were undertaken in 2014. Richmond continues to experience population growth and housing growth (highest number of residential BCs ever in 2016) hence a reassessment may show the situation has worsened. It is important that Council is able to provide services and public amenity space in parts of Richmond that may be intensified.		
Developers' Covenants	Developer's covenants on subdivisions affect feasibility. Council is unable to control such covenants. They enable the developer to inflate the price of sections by providing assurance of a high standard development to buyers and thus price of housing for purchasers. Covenants can also	Restrictive covenants on subdivisions provide assurance to purchasers of a high level of amenity and hence support for the value of their purchase. Covenants typically continue in perpetuity, except where timeframes are expressly included.	Developer's covenants may restrict the current and future development capacity of land for intensification around Richmond town centre. This risk is considered small in this location as few large sites are likely to come forward for intensification, they are likely to be more fragmented proposals	The Productivity Commission in its final report "Using Land for housing" (2015) does not see a strong case to regulate the content of covenants or give local authorities the power to overturn covenants. A Local Authority has to rely on national government for legislative changes.

Options	Costs of Environmental, Economic, Social And Cultural Effects from the Proposal	Benefits of Environmental, Economic, Social and Cultural Effects from the Proposal	Risk	Effectiveness and Efficiency of the Provisions in Achieving the Objectives of the Proposal
	lead to increased building costs for purchasers. Covenants can restrict the current and future development capacity of land.	They allow landowners to agree to be bound by restrictions.	put forward by individual landowners to intensify housing.	

Preferred Options

Having carefully considered the options in relation to economic feasibility of intensive housing, the preferred options across the themes of commercial feasibility, stormwater and Council charges are for a permitted pathway for stormwater consent and for RFCs to remain as currently levied. Council is reviewing the DC policy in 2017 and staff propose a discount for smaller and denser dwellings. This position gives rise to the following specific recommendations:

- The Council's DC policy is currently being reviewed to propose a discount for high density or small dwellings across the district. The revised DC policy will be in effect by July 2018.
- A rule has been drafted to provide a permitted pathway for stormwater consent in RIDA, to provide greater certainty and reduce both time and cost for developers.
- RFCs will continue to be levied as currently, until the relevant section of the RMA Amendment Act comes into force in five years' time.

5.4 Issue: Relationship with TRMP's Existing Policy Framework

Options	Costs of environmental, economic, social and cultural effects from the proposal	Benefits of environmental, economic, social and cultural effects from the proposal	Risk	Effectiveness and efficiency of the provisions in achieving the objectives of the proposal
Notification v Non-notification	Existing medium density housing policy frameworks in the TRMP can require limited or public notification of applications, (although this is subject to RM Amendment Act provisions coming into force on 17 October 2017). This can cause delays and increased costs for applicants, thereby discouraging submission of such applications. Recognising this, the RM Amendment Act provisions preclude notification of certain activities (from Oct 2017) including residential activities if they are controlled, RDA or DA. The community's reaction to the Plan Change will continue to be tested during the remainder of the Schedule 1 process.	Non-notification encourages applications as it reduces costs and risks associated with an application. The RM Amendment Act will introduce certain provisions from Oct 2017 which will reduce the number of residential RC applications to be publicly notified. The Plan Change had previous drafting with rules precluding the same thing but these will not be needed as a result of the RM Amendment Act.	With non-notification, risk is maximised for the community of not being able to comment on individual applications, but it is minimised for the applicant with greater certainty of outcome, reduced time and cost. Consulting with the RRAG stakeholder group has highlighted how limited notification requirements can be as onerous as public notification and lead to significant increased costs and delay.	Notification of applications may reduce effectiveness as intensive housing may not be provided, since the developer may be discouraged from pursing proposals. Non-notification enables a shorter, significantly cheaper consent process and greater certainty for the applicant. Public notification of Controlled subdivision applications in RIDA, RDA subdivision applications in RIDA and RDA land use applications in RIDA will be precluded as a result of the RM Amendment Act (Oct 2017). Rules in the Plan Change are not required. A rule in the Plan Change is still proposed precluding limited notification for Controlled subdivision and RDA land use applications in RIDA. This is to assist with the delivery of medium density housing in Richmond. Consideration of publicly notifying or limited notifying in special circumstances would still occur – as enabled by the forthcoming s.95 A (9) and 95 B (10) of the RM Amendment Act.

Options	Costs of environmental, economic, social and cultural effects from the proposal	Benefits of environmental, economic, social and cultural effects from the proposal	Risk	Effectiveness and efficiency of the provisions in achieving the objectives of the proposal
Activity Status	The known capacity constraint of Richmond's stormwater system means that the existing stormwater rules in the TRMP make most subdivision applications for medium density in Richmond a discretionary activity status. This increases uncertainty and cost for applicants. Such applications are assessed on a case by case basis and a broad range of conditions can be imposed to address the specific effects of the activity at that location. This can discourage such proposals. The activity status in RIDA is proposed as Controlled for subdivision but Restricted Discretionary Activity for land use. A cost to Council could be that Controlled applications have to be approved, if they comply with the rules, but this is seen as a fairer pathway for applicants.	Maximum flexibility is afforded to Council currently (the consent authority) with the ability to decline or grant such a normally Discretionary activity application for medium density housing, as well as having full discretion as to the conditions that can be attached to any consents. The Plan Change affords greater certainty and reduced time and cost to the applicant proposing Controlled subdivision status. Land Use applications would however be Restricted Discretionary Activity status which affords greater control to the consent authority.	Risk is minimal currently from stormwater flooding, since the application can be declined due to the activity status. However currently risk is maximised for the developer due to the uncertainty of outcome for such applications, with stormwater being considered on a case by case basis. The risk of intensive housing not being provided is increased, as developers choose not to pursue proposals due to significant uncertainty and costs. The option of a permitted stormwater standard under subdivision (controlled status) and land use (restricted discretionary activity status) gives applicants greater certainty of outcome and still provides Council with ability to decline applications where these permitted conditions are not met, thus preventing stormwater flooding.	Proposals to manage stormwater are currently worked out on a case by case basis which is not efficient and can increase costs and uncertainty for the developer. This in turn can reduce the effectiveness in achieving the overall objective – that of enabling intensive housing in Richmond and providing greater housing choice. Discretionary activity status is often used where the activity is not suitable in all locations within a zone or where the effects of the activity are so variable that it is not possible to prescribe standards to control them in advance. It was not the policy intention for so many applications to trip to Discretionary activity status, but in doing so the rule framework currently doesn't efficiently enable medium density housing. The Plan Change seeks a balance, enabling intensive housing by providing increased certainty of outcome to applicants, in providing a permitted pathway for stormwater. Land is still protected from stormwater flooding but greater certainty is

Options	Costs of environmental, economic, social and cultural effects from the proposal	Benefits of environmental, economic, social and cultural effects from the proposal	Risk	Effectiveness and efficiency of the provisions in achieving the objectives of the proposal
				provided to applicants. Also subdivision and land use consents are not required to be submitted together, so as to decrease initial costs to applicant. A building envelope only is required for subdivision applications. This is seen as a more equitable approach and one that should enable intensification.
Medium Density Housing is already enabled via Compact and Comprehensive Residential provisions in the TRMP (i.e. "do-nothing scenario")	In Richmond, compact density housing is only enabled currently within the Development Areas (except for Richmond East Development Area) – this does not therefore enable intensification through redevelopment close to Richmond town centre, where local amenities are easily accessed. Compact housing provisions have not been overly popular due to having to submit all resource consent applications together and due to a large minimum parent lot size. The proposed Plan change seeks to rectify some of these problems, by proposing a reduced parent minimum lot size. The new intensive housing proposed by the Plan change does not require all resource consent	The Plan change would enable a more intensive form of housing in an area around the town centre, thus broadening choice. Intensive housing is proposed in confined areas of Richmond only where only minor if any further investment in infrastructure is required to enable intensification. By restricting intensification to certain areas of Richmond, RMA Schedule 1 processes are also more contained.	Should the "do-nothing" scenario be preferred there would be little risk to Council since these are operative policy frameworks. However, the outcome of such a 'do nothing' scenario is that housing choice is not increased in Richmond and little medium density housing is provided near Richmond town centre, close to services and amenities. Such developments near the town centre can likely only be pursued via non-complying activity status applications at the moment. The Plan change therefore broadens housing choice. A significant amount of pre-notification consultation has already taken place and the	'Do-nothing' approach is ineffective in providing a greater housing choice for the District's residents, close to Richmond town centre, particularly for the older members of the community. The consultation process has identified demand for intensive housing including for the elderly, single households and families near the town centre. The Plan change therefore seeks to provide a policy framework that meets this demand.

Options	Costs of environmental, economic, social and cultural effects from the proposal	Benefits of environmental, economic, social and cultural effects from the proposal	Risk	Effectiveness and efficiency of the provisions in achieving the objectives of the proposal
	applications to be submitted at the same time. Comprehensive housing is provided for outside of Richmond South, West and East (below Hill St) Development Areas in Richmond. It has been more popular with developers than compact housing provisions but the building coverage, height and minimum lot size standards do not go far enough to enable intensification. Comprehensive housing rules also only apply to three or more dwellings.		community is generally very supportive of the concept. This should lessen risk of a protracted Schedule 1 process for the Plan change.	

Preferred Options

Having carefully considered the options in relation to the TRMP's existing policy framework, the preferred options across this theme are:

- No public notification of certain consent applications for intensive housing in RIDA as enabled by the RM Amendment Act 2017 (Oct 2017)
- No limited notification of certain consent applications for intensive housing in RIDA by way of a rule precluding this in the Plan Change
- Controlled activity status for subdivision and Restricted Discretionary activity status for land use applications
- To provide a new geographical area near the town centre for the most intensive form of housing
- To introduce rules that enable a denser form of housing in this location.

Section 6 which provides the drafting outline of the Plan change, contains details of these specific rules.

5.5 Summary of Reasons for the Proposed Plan Change Provisions arising from Recommendations from Options Evaluation

In accordance with s.32(1)(b) having identified and assessed other reasonably practicable options, the reasons for deciding on the provisions are summarised below:

1. It is not appropriate to enable higher density dwellings District –wide or even Richmond wide without investigations having been undertaken into the feasibility and ability of infrastructure to cope with increased density of development and impervious areas. There are a large number of criteria which need to be first assessed, such as ratio of land value to capital value, age of housing stock, proximity to services, proximity to public transport, feasibility, which also influence the likely success of denser housing in a given location.
2. In the interest of increasing housing choice, variety of forms should be enabled throughout Richmond. There are already provisions that enable compact housing in greenfield areas and comprehensive housing in brownfield areas of Richmond. This Plan Change further adds to housing choice by enabling a more intensive form of housing around Richmond town centre.
3. A set of rules provided in the Plan Change together with use of the Urban Design Guide already appended to the TRMP, will secure desirable design outcomes where housing is intensified.
4. Rule frameworks of other Councils comparable demographically, have helped inform this Plan Change. This will help to ensure a consistent rule framework for Tasman.
5. In order to provide for a more intensive form of housing in Richmond, a minimum section size of 200 sqm is required, building coverage needs to be increased to 50% and height raised to 7.5m. There have been examples recently of these size of sections and densities coming forward in Richmond, despite a non-complying policy framework.
6. While providing for intensification, it is important to protect privacy of neighbours. A range of privacy standards have therefore been provided in the Plan Change which a proposal must comply with to benefit from the lower activity status e.g. setbacks, height in relation to boundary.
7. Minor dwelling/granny flats/multiple kitchens all have a role to play in intensification of housing, in improving affordability and housing choice in Richmond. The Plan Change allows for these by allowing more than one dwelling per section. A development contribution policy review 2017/18 may reduce charges for additional kitchens.
8. Attached dwellings are considered an important option for denser housing and result in more efficient use of land, hence these have also been enabled.
9. Together with new TRMP provisions, other strategic incentives are required to encourage intensification. Hence Council's DC policy is being reviewed in 2017-18, and staff propose a discount being applied for smaller dwellings.
10. In order to prevent subdivision applications defaulting to Discretionary activity status due to inability to satisfy stormwater rules in Richmond, a permitted pathway for stormwater consent has been provided in the Plan Change. This seeks to provide greater certainty for applicants and reduce time and cost.
11. RFCs are to remain as currently levied since Council is not currently meeting its desired levels of service for reserves in Richmond, both in terms of reserve area per head of population and proximity of reserves to residential dwellings. Other services have also not met the desired level of service, including recreation centres, cemeteries and toilets in parks and reserves. Further intensification may exacerbate this situation. Intensification may place greater demands on services not less.

12. Certain non-notification of subdivision and land use consent applications for intensive housing in RIDA, where applicable standards are met, is considered appropriate to reduce risks and costs for applicants and enable greater housing choice in Richmond.
13. Controlled activity status for subdivision and Restricted Discretionary activity status for land use applications is considered a more equitable approach. This reduces uncertainty for applicants for subdivision, but enables Council to retain control over land use resource consent proposals. The Plan Change also enables applicants to submit subdivision (with a complying building envelope) and land use separately.

6.0 Richmond Housing Choice Proposed Plan Change - Drafting Instructions

This section describes the objectives and provisions in the proposed Plan Change, with the option evaluation having been undertaken.

The drafting outline for the TRMP (The Plan) was developed from the policy approach and planning options recommended by the RRAG in their September 2015 report to Council, the majority of which was endorsed by Council at the Environment and Planning Meeting of October 2015.

6.1 Primary Purpose of the Plan Change

To enable intensive residential development in Richmond around the town centre with additions and adjustments to the current policy and rules to help clarify the intent of the Subdivision and Residential Zone chapters.

6.2 Location of Richmond Intensive Development Area (RIDA)

RIDA to be located around the town centre and urban facilities including public transport. The spatial extent of RIDA is the same as the "highly suitable" and "suitable" character areas shown on the Medium Density Suitability Map 17.

6.3 Policy Approach (Objectives of Plan Change)

Include new objectives and policy in the Plan that:

(i) Provide for a diversity and choice of housing density and form in Richmond to cater for a growing population, a changing demographic profile and a range of living options through medium density housing development in the forms of compact density, comprehensive housing and intensive residential development.

(ii) Encourages residential intensification through a combination of infill and redevelopment in the Richmond Intensive Development Area (RIDA), located around the town centre.

(iii) Ensures that medium density housing in Richmond in the forms of compact density, comprehensive and intensive housing, achieves a high standard of amenity.

6.4 Separate submission of resource consents for intensive development subdivision and land use (building construction)

Develop Plan provisions for RIDA that enable subdivision and land use (building) resource consents to be submitted separately.

This is different to the Plan provisions for Compact Density development and for the subdivision provisions for Comprehensive housing which requires these consents be submitted together.

6.5 Non-notification

Develop Plan provisions for RIDA that allow for a non-notified pathway (for both public and for limited notification to affected parties) if plan standards are met, e.g. Subdivision – Controlled activity status for Intensive development in RIDA as well as the default to

Restricted Discretionary activity status. Land Use (Building) – Restricted Discretionary activity status for Intensive development in RIDA.

6.6 Activity Status for Subdivision and Land Use (Building) for Intensive Development in RIDA

For RIDA, whether subdivision and land use consent applications are submitted separately or together, provide for:

(i) Subdivision at Controlled consent level, if the following standards are met:
   (a) minimum lot size;
   (b) permitted stormwater standard;
   (c) complying building envelope shown that meets coverage, setbacks, height, HIRB private contiguous outdoor living space standards and access and parking standards.

   If the storm water standard is not met, the application trips to Restricted Discretionary consent level. If other Controlled standards are not, the application trips to Discretionary consent level.

(ii) Land Use (Building construction) at Restricted Discretionary consent level if the following standards are met:
   (a) minimum lot size;
   (b) permitted stormwater standard;
   (c) complying building plans are provided that meet coverage, setbacks, height, height in relation to boundary (HiRB), private contiguous outdoor living space standards as well as access and parking standards.

   If standards are not met, the application trips to Discretionary consent level.

6.7 Minimum Lot Sizes

7.1 RIDA - Minimum Parent Site Size and Minimum Lot Size

Intensive Development method - no minimum parent site size for subdivision and 200 sqm minimum per developed lot.

Compact Density method – not applicable in RIDA.

Comprehensive development method – not applicable in RIDA.

7.2 Richmond South and West Development Areas - Minimum Parent Site Size for Compact Density Method

Reduce minimum parent site size for subdivision with lowest level of consent from 5,000 sqm to 1,500 sqm, in line with Mapua Special development Area and Motueka West Compact Density Residential Area.

6.8 RIDA - Stormwater

Provide a permitted stormwater standard for subdivision and land use consents that allows for intensive development.

New development is permitted where stormwater detention is provided on the site associated with the development at the rate of 50 litres per square metre of additional impervious surface created. In cases where a site is located within a specified flow path,

the flow path is managed so that the stormwater can cross the site but not increase the flow post development downstream or cause or contribute to additional off - site flooding.

In order to protect base groundwater flow in summer, runoff temperature control, first flush contaminant treatment and reduction in the speed and volume of runoff, infiltration devices are proposed in RIDA in certain circumstances.

6.9 RIDA - Land Use (Building Construction or Alteration Standards)

These standards have been tested against two applications for intensive housing development currently being processed by staff. They have also been tested by an architect.

6.1 Coverage - building and site

Building coverage - 50% and site coverage - 70%.

6.2 Contiguous private outdoor living space

Retain the current Plan compact density provision for 20 sqm outdoor living space requirement (17.1.3.3(h)), i.e. at least 20 sqm of contiguous private outdoor living space which is capable of containing a 4 metre diameter within its shape.

6.3 Building Height

For RIDA intensive housing, provide for a 7.5m building height (two storeys) at the lowest level of consent for all sites.

For standard density housing in RIDA the height limit is 6.5m for sites less than 400 sqm – same as for the Mapua Special Development Area.

Except in RIDA, for Richmond standard density housing the current height limit is 7.5m for sites more than 400m in size and 5m for sites less than 400 sqm.

6.4 Building envelope, internal and external boundary setbacks

For RIDA, retain the current compact density model 'height in relation to boundary building envelope', and external boundary setback requirements (17.1.3.3 (f) and (g)), as for Mapua and the provision that fencing is not higher than 0.8 m along front yard. Internal boundary setbacks for RIDA allow for flexibility of design in a brownfield context (17.1.3.4CC(fa)).

6.5 Parking and Access

In RIDA:

(a) provide for one parking bay per dwelling and 1 visitor carpark for three dwellings and every three dwellings thereafter.

(b) reduce the width of the current Plan right of way provisions to enable more efficient use of land, but continue to provide for a passing bay for five to six users as follows:
- 3m width for one user
- 3.5m for two to four users
- 3.5m plus a passing bay at the start of the right of way and thereafter at 50m intervals for five to six users

(c) continue working with the Richmond parking strategy team to try and ameliorate resident/business parking conflicts in streets around the CBD.

6.6. Privacy Provisions

In RIDA, include provisions that ensure that residents have domestic privacy.

The provisions that will apply to RIDA for managing setbacks from internal boundaries (17.1.3.4CC(fa) and external boundaries (17.1.3.3 (g)), the building envelope (17.1.3.3(f)) and outdoor living space for units above ground floor level (17.1.3.3(h)) provide for some privacy.

The provisions that protect privacy more fully, per the example below are:

(a) buildings are setback at least 3m from the nearest part of any other residential building except when buildings are attached;

(b) 4m setback from one internal side or rear boundary.

6.7 Variation in walls that exceed a certain length (wall offset)

In RIDA, include a new provision that provides for a recess - with minimum dimensions of 3m x 3m - in walls that exceed 12m length and provide for two storeys. The recess is to be provided at second storey level.

The provision is expected to reduce the visual effects of solid walls, (that are more than one storey in height) on neighbouring properties and contribute to amenity values in the vicinity.

6.10 Design Quality and Amenity Outcomes

For RIDA provide for consistency with the Urban Design Guide (Part II Appendix 2) as a matter for Restricted / Discretionary land use consent.

Introduce a new policy framework to support medium density development that meets high amenity standards in RIDA and generally (as above).

Retain current Plan matters of Restricted /Discretion that address design quality (such as 17.1.3.4 (Building Design and Appearance, matters (27) – (32).

7.0 S.32(2)(a) – Environment, Economic, Social and Cultural Effects

S.32 (2) (a) requires a consideration and assessment of the environmental, economic, social and cultural effects that are anticipated from the implementation of the provisions, including opportunities for economic growth and employment.

Environmental effects have been considered in the previous section's option evaluation.

"Economics Business Land Demand Forecasting report" prepared by Property Economics for Tasman District Council in 2016 found that employment in construction grew by 70% between 2001 and 2015 in the District, although agriculture, retail and manufacturing are Tasman's most significant sectors of employment. When compared with national growth in construction, Tasman is under the national average growth in construction employment for the same time period, of 85%.

On the whole across all sectors, employment growth in the Tasman Nelson regions has not been as high as that experienced in New Zealand on a proportional basis (24% vs 28%). So while the Tasman Nelson regions have experienced net employment growth over the 2000-2015 period, it has not been at the same rate (below average) that New Zealand as a whole experienced.

Encouragement of further development of housing in the District by enabling intensification in Richmond could lead to sustained growth locally in construction employment. This may then assist employment growth in the region and improve the region's current under performance when compared with national employment growth statistics.

Combined with the population growth generally in the District and other measures to increase housing land supply, such as those contained within the 2017 Tasman Housing Accord, this may also lead to increased demand for education and health facilities in Richmond in particular.

Indirect employment may also result from increased housebuilding in the area, such as jobs in firms supplying both goods (materials) and services for the construction sector. These are generally acknowledged to be more relevant with housing developments where the development is long term, such as that proposed in this Plan Change.

In terms of social and cultural effects, the option evaluation in the previous section included some of these. There is a known housing affordability problem in Tasman District, which is currently worsening as recognised in the 2017 Tasman Housing Accord. Home ownership has been amongst the highest proportions nationally in Tasman with 75% of households owning their home, or being held in a family trust (national average is 63%).

The aggregate housing affordability index[2] as prepared by Massey University in March 2017, shows that Tasman (as part of Nelson-Tasman- Marlborough regional cluster) is experiencing affordability challenges. Whilst the index improved by 0.6% in the previous

[2] The index integrates median dwelling prices, average weekly income and average mortgage rates across all housing market segments.

12 months, this was less than the annual national improvement in affordability of 2.2%. Based on this index, Tasman remains the third least affordable region in the country.

The District's housing supply is dominated by traditional low-density housing and this Plan Change seeks to expand the housing choice on offer in Richmond, for the smaller households. This will enable different and denser forms of housing development in parts of Richmond which could be more affordable.

As evidenced in the recent National Policy Statement on Urban Development capacity, the Government believes that streamlined regulation will lead to increased availability of land for housing, and that increased supply will generally result in greater housing choice and affordability.

8.0 S.32(2)(c) – Risk of Acting or Not Acting if there is Uncertain or Insufficient Information

As part of assessing the efficiency and effectiveness of proposed provisions, an evaluation must take into account the risk of acting or not acting where there is uncertain or insufficient information.

Areas where information is uncertain in this evaluation could potentially comprise:

- Geographical areas suitable for intensification
- Economic feasibility of intensification

The risks have been assessed in the evaluation above for these themes but are discussed further below.

8.1 Suitability of Geographical Area for Intensification

A detailed criteria based assessment was undertaken for all of Richmond to help assess which areas were considered suitable for intensification. These criteria comprised:

- Distance from CBD
- Ratio of land value to capital value
- Topography
- Hazard risk
- Development age (decade of dominant original)
- Availability of formal amenity
- Proximity of amenities
- Degree of infill/redevelopment
- Public transport availability
- Walkability
- Amenity value of area (outlook, views, heritage)
- Allotment size (original)
- Dwelling count (number of dwellings for % of area)
- Greenfields or already developed
- Water potential rating
- Stormwater potential rating
- Wastewater potential rating
- Transport (private) potential rating
- Transport (footpaths and walkways) potential

Following this assessment stormwater flowpath modelling was undertaken in the areas found suitable for intensification. The outputs from this modelling will assist with an assessment of applications against the permitted pathway that has been drafted for stormwater consent.

Given the extent of assessment that has been undertaken in identifying areas suitable for intensification, it is considered that the risk is modest of areas being prioritised for intensification that are not suitable.

8.2 Economic Feasibility of Intensification

As preparatory work for this Plan Change, a significant amount of time has been spent on assessing the commercial feasibility (for developers) of intensification in Richmond.

During 2015, one of the RRAG meetings examined this, (meeting 4) by exploring sales data for different medium density dwellings in Nelson and Richmond, with the help of a local valuer; considering the different costs and charges that contribute to housing development in Tasman; and by examining in detail a feasibility assessment of a medium density development that had been consented recently but not implemented.

The feasibility exercise raised the following issues:

- There are differing views on building costs per sqm locally
- Developers normally seek a profit of around 20%
- Construction and finance holding costs are proportionately high – building costs representing nearly 50% of costs, based on $1800/sqm, which was felt to be a minimum
- Greenfields development is cheaper than brownfields, since the cost of the land (without a house on it) is cheaper
- The worked example was in an area that has seen recent growth in property values, making the land value: capital value ratio lower and less attractive for redevelopment (where land value is high and capital value is low the ratio is higher)
- A reduction of Development or Reserve Fund Contributions would improve profitability by 1% or 2% only which does not make the development feasible. However DCs are the same for this development as for a greenfields development which seems inequitable
- Other areas in Richmond may work better as capital values are not as high. Although this would mean sales values may also not be as high, this may change in future through gentrification
- Greater certainty is required with a more enabling subdivision activity status than is currently the norm e.g. Controlled rather than Discretionary.

The session on feasibility also explored costs that arise for applicants from notification of resource consents and the impact of developers covenants. A discussion took place on whether Development Contributions and Reserve Financial contributions should be reduced for intensive development.

The initial 2015 worked example involved the purchase of a large section with an existing dwelling and the creation of five lots from the existing parent lot, retaining the existing dwelling and building four new dwellings. The feasibility exercise using the residual value method revealed the following breakdown of costs:

- Purchase cost of property – 33.8%
- Design & resource consent costs – 1.1%
- Consent condition compliance – 5.4%
- Final survey plan Council charges (DCs, RFCs, connections fees) – 7.3%
- Final survey plan creation of new titles – 0.8%
- Interest costs year 1 – 0.9%
- Total construction phase costs – 48.2%
- Interest costs year 2 – 2.6%

The feasibility resulted in a loss on sale per unit of -2%. The required net profit for this type of development would normally be about 20%.

As a result of the feasibility assessment not being profitable, Officers held subsequent discussions with other Council officers (such as the Commercial Manager) to see whether some assumptions were incorrect.

Consequently, the feasibility exercise was peer reviewed and refined by Council staff with experience in costing residential development. Some costs (unnecessary borrowing and duplications) were reduced; other costs were re- allocated and income from the sale of all the units was accounted for.

The updated model, using mid-range building costs of $1500/sqm for 2015 when the initial feasibility exercise was completed and $2100 for 2017 for the current updated feasibility exercise, yielded the following results:

For 2015:

- Purchase cost of property – 33%
- Design & resource consent costs _- 1%
- Consent condition compliance – 5%
- Final survey plan Council charges (DCs, RFCs, connections fees) – 7%
- Final survey plan creation of new titles – 1%
- Total construction phase costs – 39%
- Total borrowing costs - 3%

The feasibility resulted in an overall development profit of 11% on sale of all of the five units.

For 2017:

- Purchase cost of property – 30%
- Design & resource consent costs - 1%
- Consent condition compliance – 4%
- Final survey plan Council charges (DCs, RFCs, connections fees) – 6%
- Final survey plan creation of new titles – 1%
- Total construction phase costs – 43%
- Total borrowing costs - 3%

The feasibility resulted in an overall development profit of 12% on sale of all of the five units.

The Gross profit analysis, the alternative main method for assessing commercial feasibility was applied by Officers to this location and resulted in a reasonable developer profit. The gross profit analysis was also applied to another development in Richmond which was for three units replacing one larger house. This development was consented in 2015 and built in 2016. This feasibility assessment resulted in a profit of around 11%. However this still seemed insufficient, knowing that the development had been successful such that a replica development was being proposed on a site opposite in Richmond.

It was therefore decided to contract out a feasibility assessment for both case studies to a local valuer who also sub contracted a quantity surveyor. The outcome of the consultant feasibility for both locations was that there was no profit margin in such developments. Looking and comparing all costs used by the QS and Council, the majority of the difference lies in the buildings costs. For the example that replaced one house with three units, Council had assumed $2000/sqm, as it is a relatively high spec development whereas the

consultant had assumed $2,600/sqm. This item alone accounts for the majority of the difference in assumptions in the two feasibilities as this is a very significant cost in the exercise. Another cost difference in this particular case is the holding cost for borrowing finance, since it is known that the developer did not need to borrow money for this development.

Officers have since learnt that building costs vary considerably in the District, so there is a wide cost range depending on product. In 2015 RRAG insisted $1800/sqm be used whereas Council's own Building department had advised $1500/sqm. In 2017 in Richmond, starter homes construction costs can commence at $1200/sqm. Currently (2017), it is understood MBIE is using $1750/sqm for social housing and $1800/sqm for open market building costs. QV reported in the press (June 2017) that building costs nationally were around $1800-$1900/sqm. House building costs have risen by 3.5% in the last year due to high construction labour costs. [3]

Central Government (MBIE) has issued guidance in relation to the National Policy Statement on Urban Development Capacity very recently advising Local Authorities undertaking feasibility of development capacity, to approach QV for building costs, local property developers to advise on costs and returns as well as development expertise in their area to ensure modelling is realistic. All of these avenues have been explored but there remains considerable variance in building costs.

In terms of the risk of acting or not acting based on uncertain or insufficient information, it is considered that a proportionate amount of work has been undertaken in exploring commercial feasibility. Building costs are the single most influential data input into the feasibility. Given medium density developments have recently occurred in Richmond and continue to occur, they must be profitable. It is known that demand for such developments is currently high as housing affordability continues to worsen in the District.

[3] http://business.scoop.co.nz/2017/06/23/cost-of-building-a-home-in-nz-rises-3-5/

Annex A

Walkscore.com Results and Results of Criteria-based Assessment for Suitability for Intensive Residential Development

Walkscore.com Results

Scores:

Walk Score®	Description
90–100	**Walker's Paradise** Daily errands do not require a car.
70–89	**Very Walkable** Most errands can be accomplished on foot.
50–69	**Somewhat Walkable** Some errands can be accomplished on foot.
25–49	**Car-Dependent** Most errands require a car.
0–24	**Car-Dependent** Almost all errands require a car.

Walk Score

Walk Score measures the walkability of any address using a patented system. For each address, Walk Score analyzes hundreds of walking routes to nearby amenities. Points are awarded based on the distance to amenities in each category. Amenities within a 5 minute walk (.25 miles) are given maximum points. A decay function is used to give points to more distant amenities, with no points given after a 30 minute walk.

Walk Score also measures pedestrian friendliness by analyzing population density and road metrics such as block length and intersection density. Data sources include Google, Education.com, Open Street Map, the U.S. Census, Localeze, and places added by the Walk Score user community.

Street	Walkscore	Comments
Character Area 2: Croucher Street		
Croucher Street	79	Walkscore excludes walking to parks, but includes walking to dining and drinking, groceries, shopping, errands, schools, culture and entertainment
Elizabeth Street	78	
McGlashen Avenue	75	
Florence Street	75	
Linden Court	75	

Herbert Street	75	
Fauchelle Avenue	58	
Mean score	74	

Street	Walkscore	Comments
Character Area 5: Cautley Street		
Heaphy Street	41	Walkscore excludes walking to parks, but includes walking to dining and drinking, groceries, shopping, errands, schools, culture and entertainment
Giblin Street	20	
Cautley Street	31	
Alfred Sheat Street	33	
Staig Street	34	
Hunt Street	50	
Lowry Street	26	
King Street	24	
Wensley Road	40	
Mean score	33	

Street	Walkscore	Comments
Character Area 3: Queen St East		
Queen Street	n/a data for Lower Queen St only	
Edward Street	57	Walkscore excludes walking to parks, but includes walking to dining and drinking, groceries, shopping, errands, schools, culture and entertainment
Hebberd Place	58	
Roeske Street	56	
George Street	48	
Wilkes Street	55	
William Street	51	
Salisbury Road	38	
Mean score	52	

Street	Walkscore	Comments
Character Area 4: Waverley-Oxford		
Oxford Street	78	Walkscore excludes walking to parks, but includes walking to dining and drinking, groceries, shopping, errands, schools, culture and entertainment
Dorset Street	72	
Waverley Street	61	
Wensley Road	40	
Gladstone Road	45	
Mean score	59	

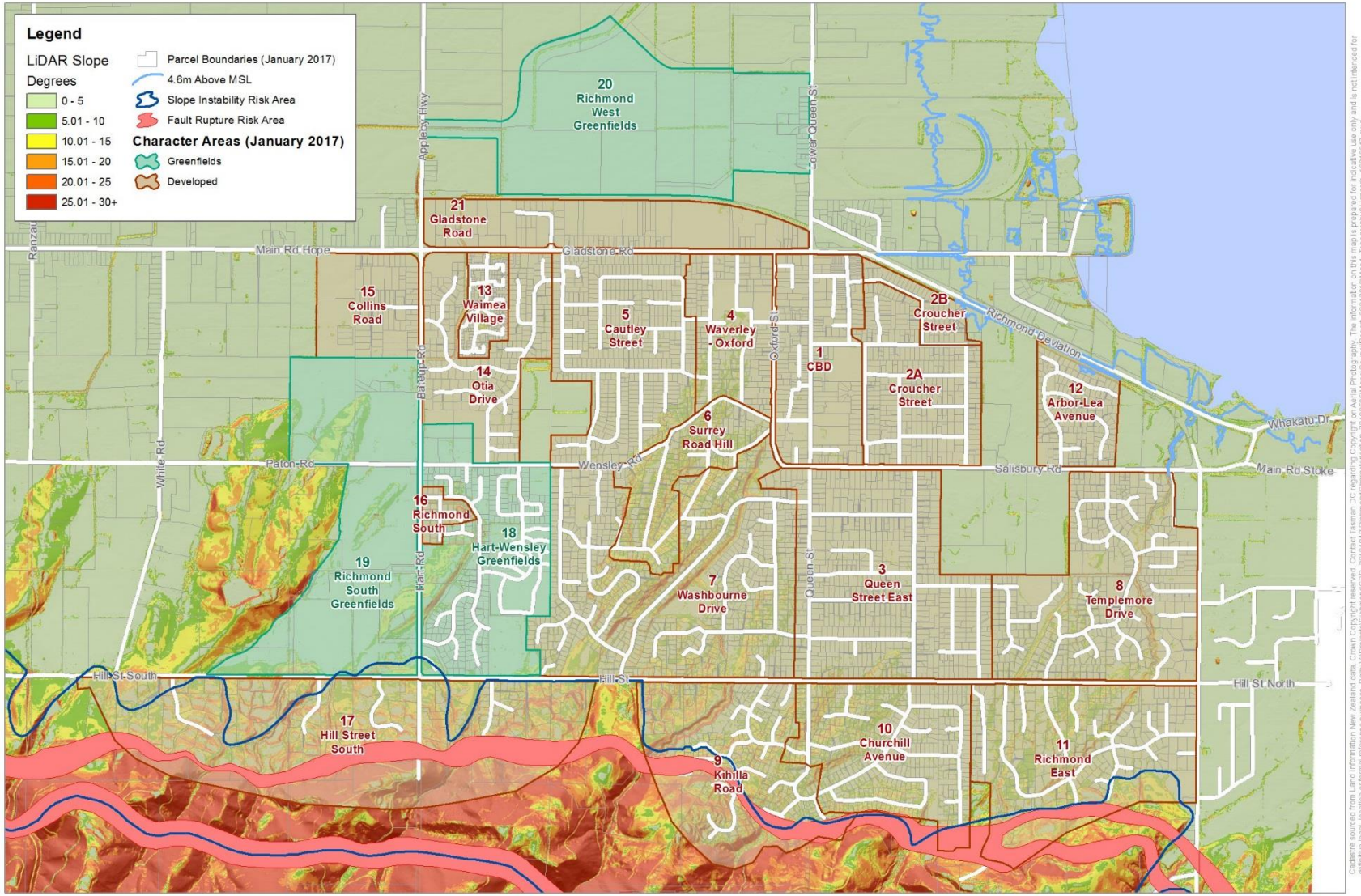
#	Character Area	1. Distance from CBD – road/access distance (within)	2. Redevelopment potential [4] – LV:CV and CV – high (H), medium (M), low (L)	3. Topography– Flat (F), Rolling (R), Steep (S)	4. Hazard risk – geological or sea level rise low (L), Medium (M), High (H)	5. Development age – decade of dominant original (approximate)	6. Formal Amenity – Number of public open space areas within (OS), directly adjoining (A), School within or adjoining (S), or walkways within (W)	7. Amenities – number in or 100m within character area: schools and daycare facilities (S), Medical centres (M), bus-stops (B), neighbourhood shops/CBD (C), resthomes (R),	8. Degree of infill/redevelopment – based on age range and allotment size variability – high (H), medium (M), low (L)	9. Public Transport network – approximate % character area within 200m (5m walk) from exstg or potential PT loop or 500m of CBD	10. Amenity – elevation for outlook and views (O/V), heritage values (H), protected trees (T)	11. Allotment size – original (mean approximation)	12. Dwelling count – number of dwellings for % of area	13. Greenfields (G) or Already Developed (D)	14. Water potential rating	15. Stormwater potential rating	16. Wastewater potential rating	17. Transportation (roading) potential rating	18. Transportation (footpaths and walkways)_ potential
	Importance Weighting	High	High	High	High	Medium	Medium	Medium	Medium	Medium	Low	Low	Low	Very Low	High	High	High	High	High
2	Croucher Street Area	500m - 1000m	H	F	L	1950s/ 1960s	OS=2, A=0, S=1, W=0	S=5 , M=1, B=4, C=2 , R=0	L	95%	-	800m^2/1000m^2	1 – 70% 2 –20% >2 – 10%	D	32	11 Part and 35 Part	9	37	36
3	Queen Street East	500m – 1500m	M	F	L	1915 - 1930	OS=0, A=0, S=1, W=0	S=4, M= 2, B=4 4, C=3 , R=0	M	50%	H	1000m^2+	1 – 80% 2 – 10% >2 -10%	D	32	11	9	31	35
4	Waverley-Oxford (Dorset) Block	500m - 1000m	M	R	L	1915 - 1930	OS=0, A=2, S=1, W=1	S=7 , M=2 , B=0, C=1 , R= 0	M	95%	O,H,T	1000m^2+	1 -75% 2-20% >2 -5%	D	32	13	9	32	34
5	Cautley Street Area	1000 – 2000km	**M**	F	L	1960s/ 1970s	OS=1, A=1, S=0, W=0	S=5 , M=0 , B= 0, C=0 , R=1	L	33%	T	700m^2	1 – 90% 2 – 10%	D	32	13	38	39	37
6	Surrey Road Hill	500m – 1500m	M	R	L	pre-1940s/ 1960s	OS=1, A=0, S=0, W=0	S=2 , M=1, B=1, C=1 , R=1	M	50%	O,H	1000m^2+	1 – 95% 2 – 5%	D	TBA	TBA	TBA	TBA	TBA
7	Washbourn Drive Area	500m – 2000m	L	R	L	**1980s/ 1990s/ 2010s**	OS=5, A=0, S=0, W=4	S=1 , M=1 , B=1, C=1 , R=1	L	50%	O,T	500m^2+/700m^2 +	1 – 95% 2 – 5%	D	TBA	TBA	TBA	TBA	TBA
8	Templemore Drive Area	1500m – 2500m	L	R	L	1990s/ 2000s	OS=2, A=0, S=2, W=4	S=4 , M=0, B=3, C=1 , R=1	L	50%	O	700m^2/2000m^2 +	1 – 90% 2 – 5% >2 – 5%	D	TBA	TBA	TBA	TBA	TBA
9	Kihilla Road Area	1500m – 2500m	L	S	H	1980s/ 1990s	OS=3, A=2, S=0, W=3	S=0, M=0, B=0, C=0, R=0	L	33%	O/V	800m^2/1000m^2	1 – 95% 2 – 2.5% >2 –2.5%	D	TBA	TBA	TBA	TBA	TBA
10	Churchill Ave Area	1500m – 2500m	M	S	M	1960s/ 1970s	OS=2, A=2, S=0, W=2	S=0, M=0, B=0, C=0, R=0	L	33%	O/V	700m^2	1 – 90% 2 – 10%	D	TBA	TBA	TBA	TBA	TBA
11	Richmond East	2000m – 3000m	L	S	H	1990s/ 2000s/ 2010s	OS=2, A=1, S=0, W=2	S=0, M=0, B=0, C=0, R=0	L	33%	O/V	700m^2/2000m^2 +	1 – 95% 2 – 5%	D/G	TBA	TBA	TBA	TBA	TBA
12	Arbourlea Av	1500m – 2000m	**M**	F	L	1990s	OS=1, A=2, S=1, W=1	S=4, M=0, B=3, C=1, R=0	L	50%	-	600m^2	1 – 100%	D	TBA	TBA	TBA	TBA	TBA
13	Waimea Village	2000m – 2500m	L	F	L	1980s/ 1990s	OS=1, A=0, S=0, W=0	S=0, M=0, B=0, C=0, R=0	L	0%	-	400m^2	1 – 98% 2 – 2%	D	TBA	TBA	TBA	TBA	TBA
14	Otia Drive	2000m – 2500m	L	F	L	1990s/ 2000s	OS=1, A=1, S=0, W=1	S=0, M=0, B=0, C=0, R=0	L	25%	-	600m^2/1000m^2	1 – 98% 2 – 2%	D	TBA	TBA	TBA	TBA	TBA
15	Collins Road	2500m – 3000m	M	F	L	1950s/ 1990s	OS=1, A=0, S=0, W=1	S=0, M=0, B=0, C=0, R=0	M	0%	-	1000m^2/2000 m^2+	1 – 100%	D/G	TBA	TBA	TBA	TBA	TBA
16	Richmond South (Hart Road)	2000m – 2500m	L	F	L	**2000s/ 2010s**	NA	S=0, M=0, B=0, C=0, R=0	NA	95%	-	600m^2	1 – 80% >2- 20%	D	TBA	TBA	TBA	TBA	TBA
17	Hill Street South	2000m – 3500m	L	S	H	1990s/ 2000s	OS=2, A=0, S=0, W=1	S=0, M=0, B=0, C=0, R=0	L	25%	O/V	2000m^2+	1 – 100%	G	TBA	TBA	TBA	TBA	TBA
18	Hart - Wensley Greenfields	2000m – 2500m	NA	F	L	**2010s**	NA	S=0, M=0, B=0, C=0, R=0	NA	50%	-	NA	1 – 95% 2 – 5%	**D/G**	TBA	TBA	TBA	TBA	TBA
19	Richmond Sth Greenfields	2500 – 3000m	NA	F	L	NA	NA	S=0, M=0, B=0, C=0, R=0	NA	33%	-	NA	1 – 60% 2 – 40%	G	TBA	TBA	TBA	TBA	TBA
20	Richmond West	500m – 2000m	NA	F	M	NA	NA	S=0, M=1, B=0, C=1, R=1	NA	10%	-	NA	1 – 78% 2 – 2% >2 – 20%	G	3	1	3	5	3
21	Gladstone Road	500m – 2000m	M	F	L	1910s – 1960s	OS=1, A=0, S=0, W=1	S=0, M=1, B=0, C=2, R=1	M	95%	-	<500 – 1000+	1 – 90% 2 – 5% >2 – 5%	D	TBA	TBA	TBA	TBA	TBA
1	CBD	0m	**NA**	F	L	NA	OS=3, A=1, S=0, W=0	S=2, M=4 , B=7, C=1 , R=0	NA	100%	-	NA	NA	D	TBA	TBA	TBA	TBA	TBA

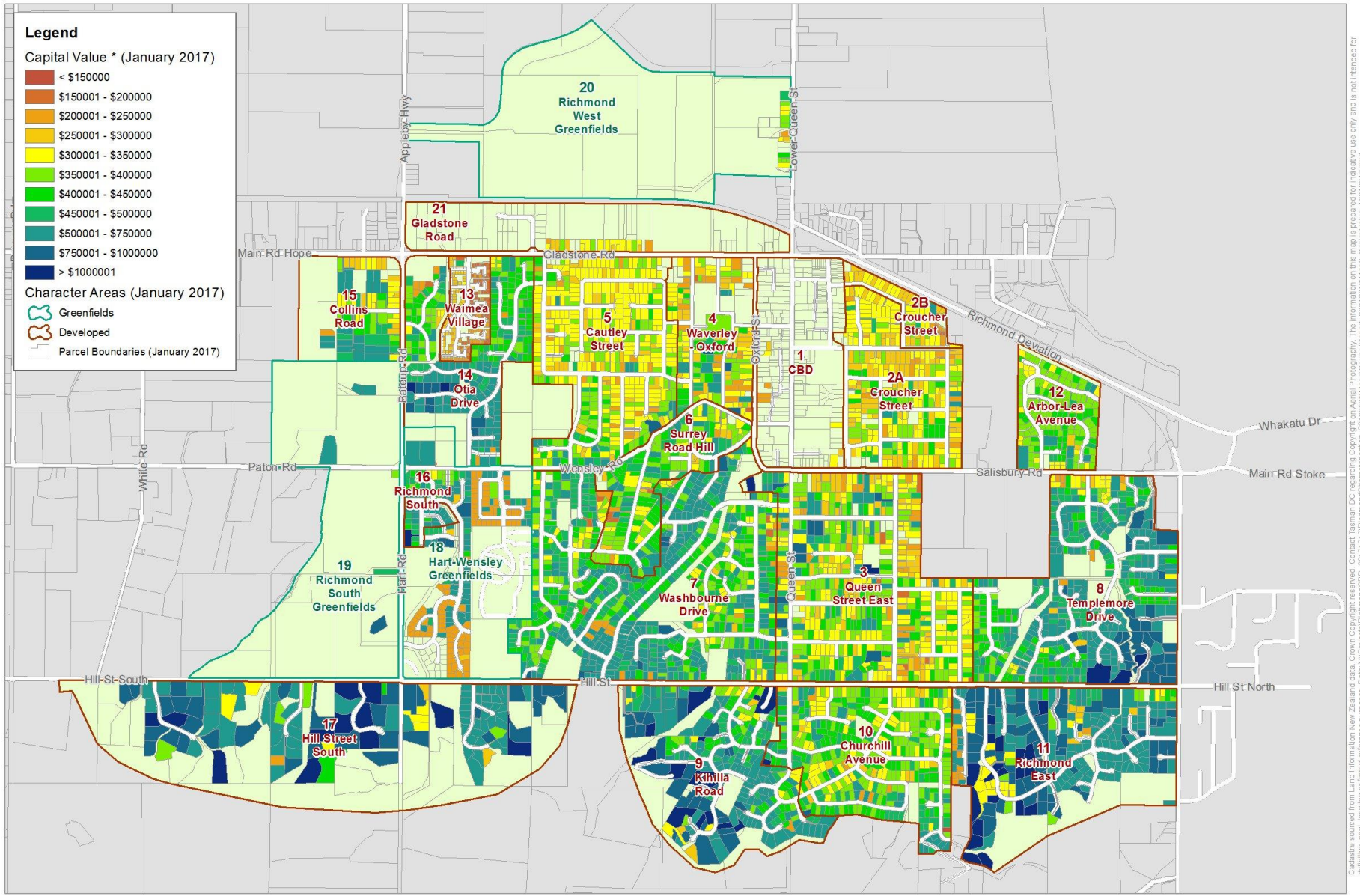
	In terms of this attribute, this location has good intensification potential	High	
	In terms of this attribute, this location has moderate intensification potential	Medium	
	In terms of this attribute, this location has poor intensification potential/not applicable	Low/Very Low	

[4] estimation of relative redevelopment potential of already developed land age of building stock, LV:CV and CV – high (H), medium (M), low (L)

Annex B

Maps Resulting from Criteria-based Assessment for Intensification Suitability





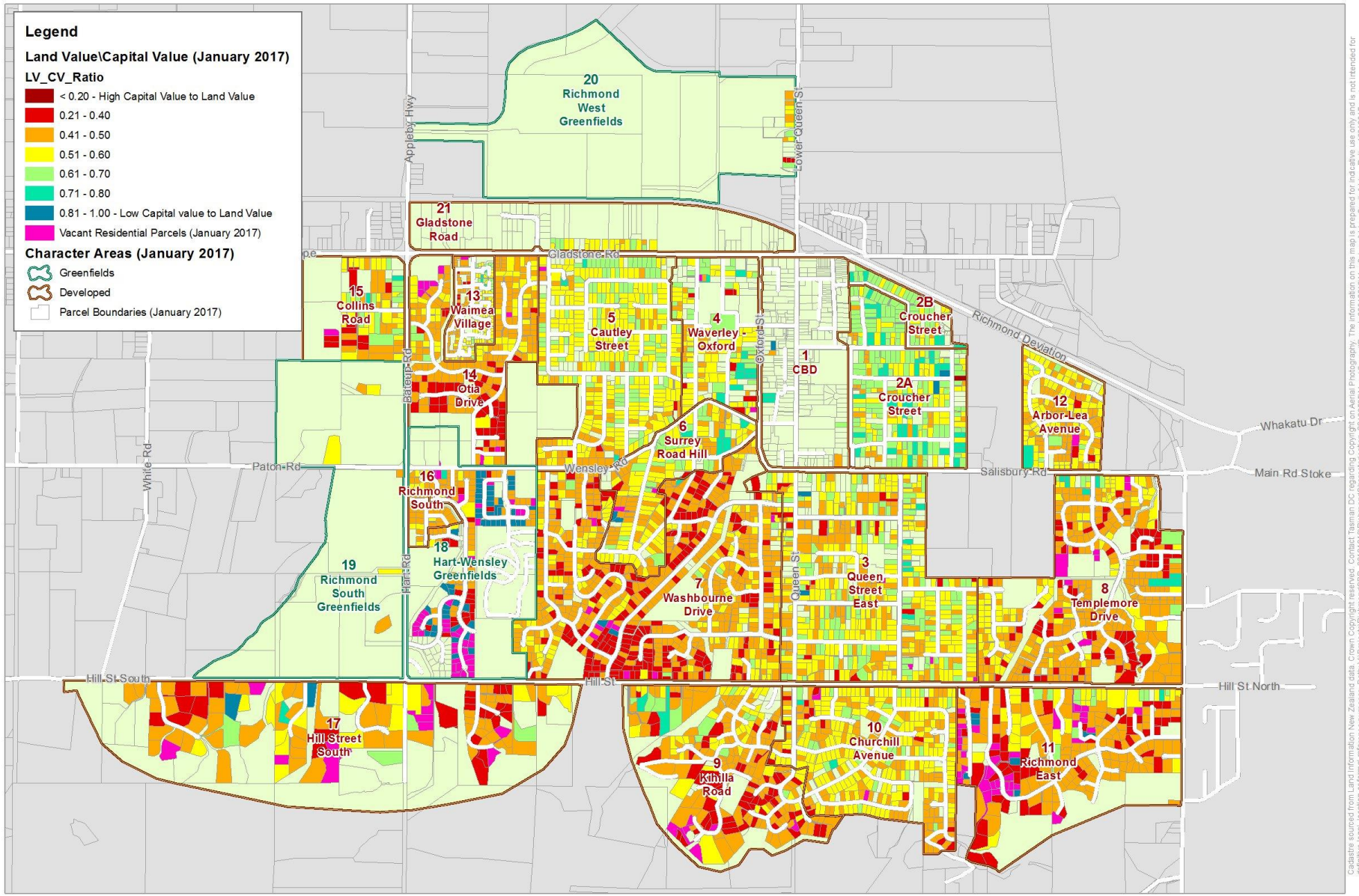
tasman district council **Map 2. Capital Value**

* Capital Value is only displaying for Valuation Assessments that are under 8000m2 and are Residential/Lifestyle properties

Map exported: Monday, 6 March 2017
Data Sourced: January 2017

1:13,000

0 0.125 0.25 0.5 0.75 1 km



Map 3. Land Value : Capital Value Ratio

* Ratio is only displaying for parcels that are under 8000m2 and are Residential/Lifestyle properties - that are not vacant

Map exported: Monday, 6 March 2017
Data Sourced: January 2017

1:13,000

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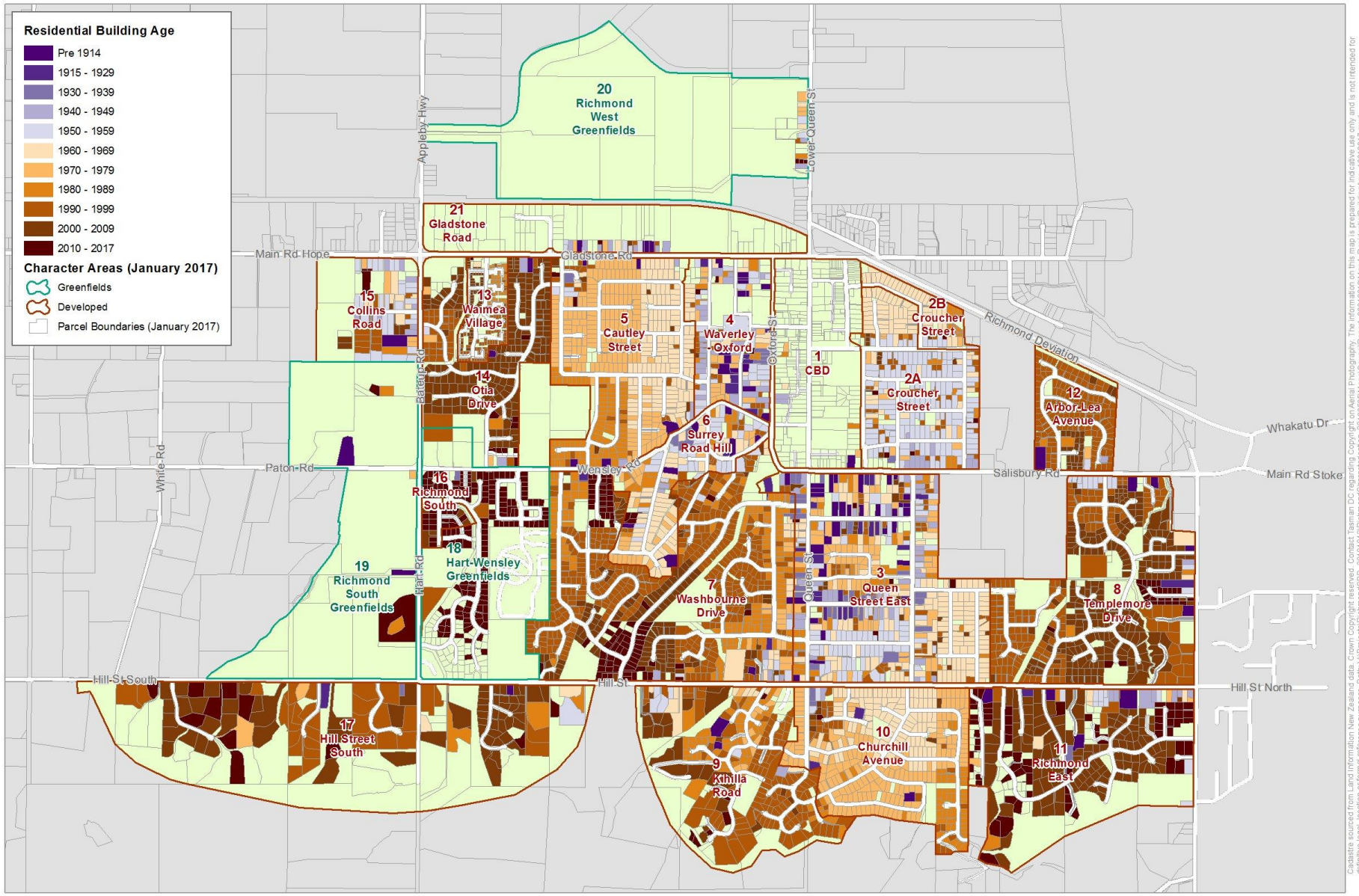
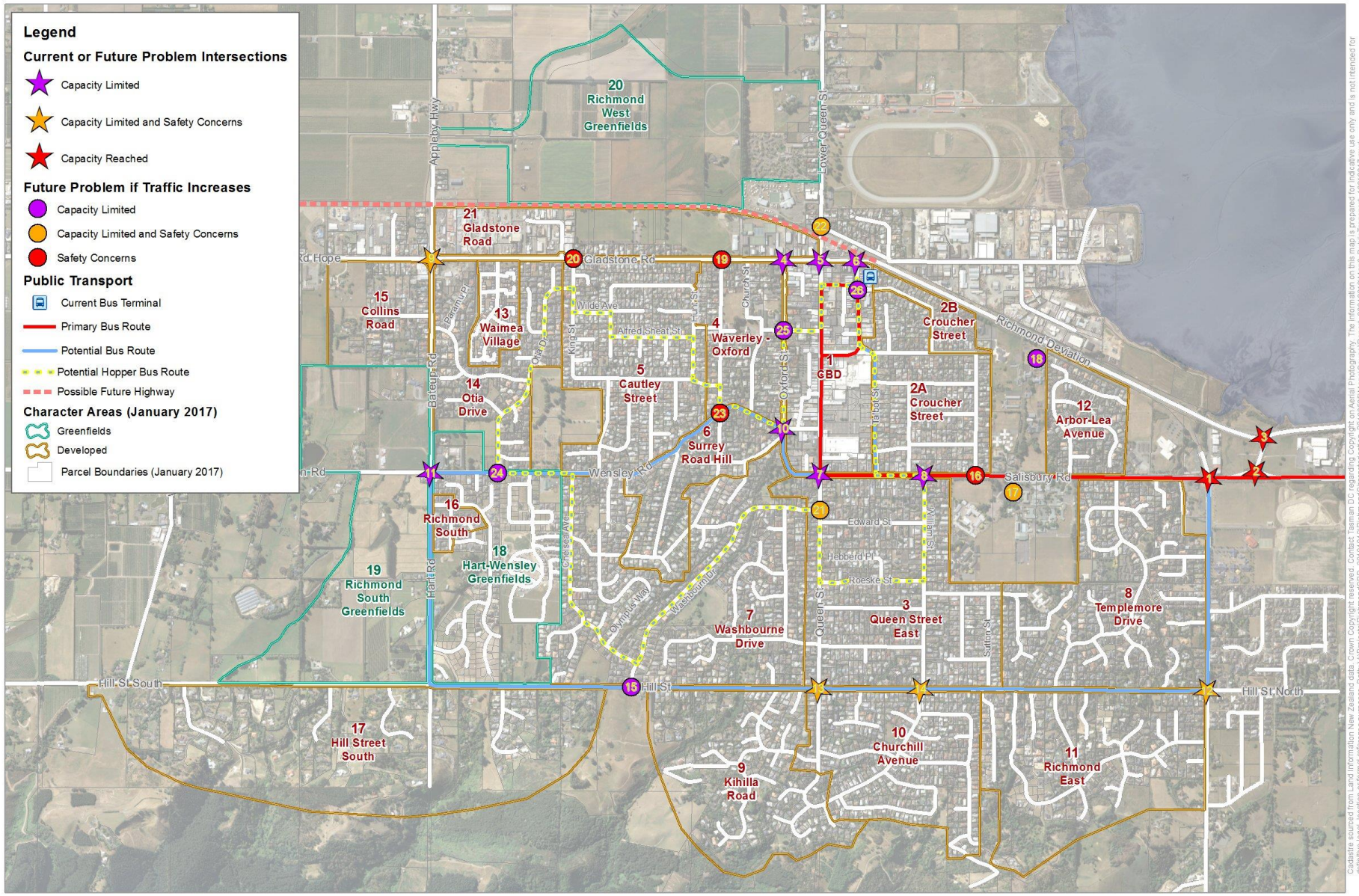

Residential Building Age
Pre 1914
1915 - 1929
1930 - 1939
1940 - 1949
1950 - 1959
1960 - 1969
1970 - 1979
1980 - 1989
1990 - 1999
2000 - 2009
2010 - 2017
Character Areas (January 2017)
Greenfields
Developed
Parcel Boundaries (January 2017)
20 Richmond West Greenfields
21 Gladstone Road
15 Collins Road
13 Waimea Village
14 Otia Drive
5 Cautley Street
4 Waverley - Oxford
1 CBD
2B Croucher Street
2A Croucher Street
12 Arbor-Lea Avenue
6 Surrey Road Hill
16 Richmond South
18 Hart-Wensley Greenfields
19 Richmond South Greenfields
7 Washbourne Drive
3 Queen Street East
8 Templemore Drive
17 Hill Street South
9 Khilla Road
10 Churchill Avenue
11 Richmond East
Appleby Hwy
Lower Queen St
Main Rd Hope
Gladstone Rd
Baigent Rd
Oxford St
Richmond Deviation
Whakatu Dr
Main Rd Stoke
Salisbury Rd
White Rd
Paton Rd
Wensley Rd
Hart Rd
Queen St
Hill St South
Hill St
Hill St North
tasman
Map 4. Residential Building Age
* Building age sourced from QV data
Includes some Lifestyle properties
Map exported: Monday, 6 March 2017
Data Sourced: January 2017
1:13,000
0 0.125 0.25 0.5 0.75 1 km

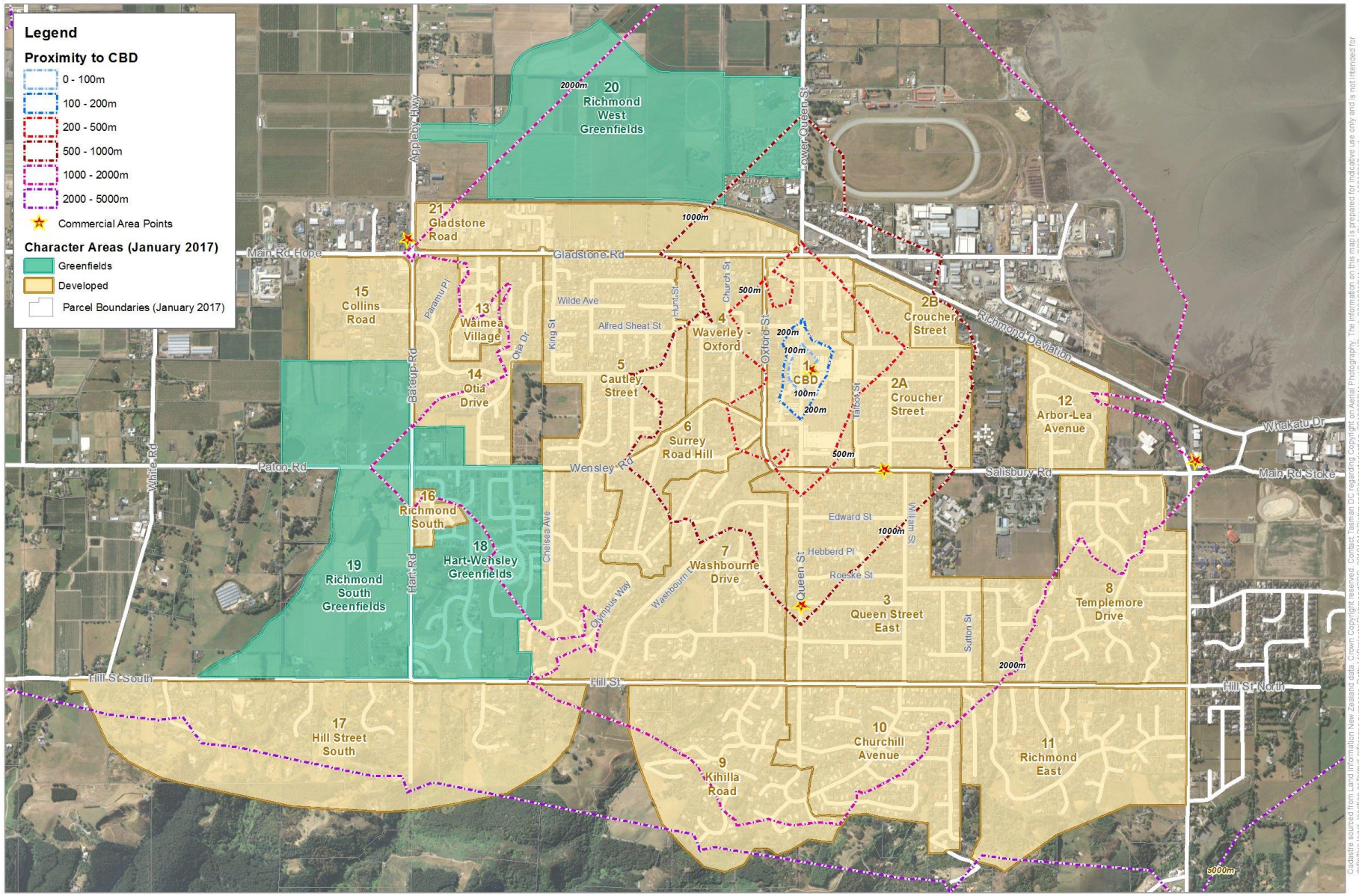
tasman district council **Map 5. Parcel Size**

Map exported: Monday, 6 March 2017
Data Sourced: January 2017

1:13,000

0 0.125 0.25 0.5 0.75 1 km


Legend
Current or Future Problem Intersections
Capacity Limited
Capacity Limited and Safety Concerns
Capacity Reached
Future Problem if Traffic Increases
Capacity Limited
Capacity Limited and Safety Concerns
Safety Concerns
Public Transport
Current Bus Terminal
Primary Bus Route
Potential Bus Route
Potential Hopper Bus Route
Possible Future Highway
Character Areas (January 2017)
Greenfields
Developed
Parcel Boundaries (January 2017)
1 GBD
2A Croucher Street
2B Croucher Street
3 Queen Street East
4 Waverley - Oxford
5 Cautley Street
6 Surrey Road Hill
7 Washbourne Drive
8 Templemore Drive
9 Kihilla Road
10 Churchill Avenue
11 Richmond East
12 Arbor-Lea Avenue
13 Waimea Village
14 Otia Drive
15 Collins Road
16 Richmond South
17 Hill Street South
18 Hart-Wensley Greenfields
19 Richmond South Greenfields
20 Richmond West Greenfields
21 Gladstone Road
Richmond Deviation
Salisbury Rd
Gladstone Rd
Wensley Rd
Hill St
Hill St South
Hill St North
Lower Queen St
Appleby Hwy
Oxford St
Queen St
Edward St
Hebberd Pl
Roeske St
Wilde Ave
Alfred Sheat St
Olympus Way
Washbourn Dr
Cautley Dr
Otia Dr
Lenham Pl
Gaiety Pl
Hart Rd
Sutton St
William St
Talbot St
Church St
Hunt St
King St
Cedar Ave
Hope
Tasman District Council
Map 6. Public Transport
Map exported: Monday, 6 March 2017
Data Sourced: January 2017
1:13,000
0 0.125 0.25 0.5 0.75 1 km



tasman district council **Map 7. Distances to CBD**

Map exported: Monday, 6 March 2017
Data Sourced: January 2017

1:13,000

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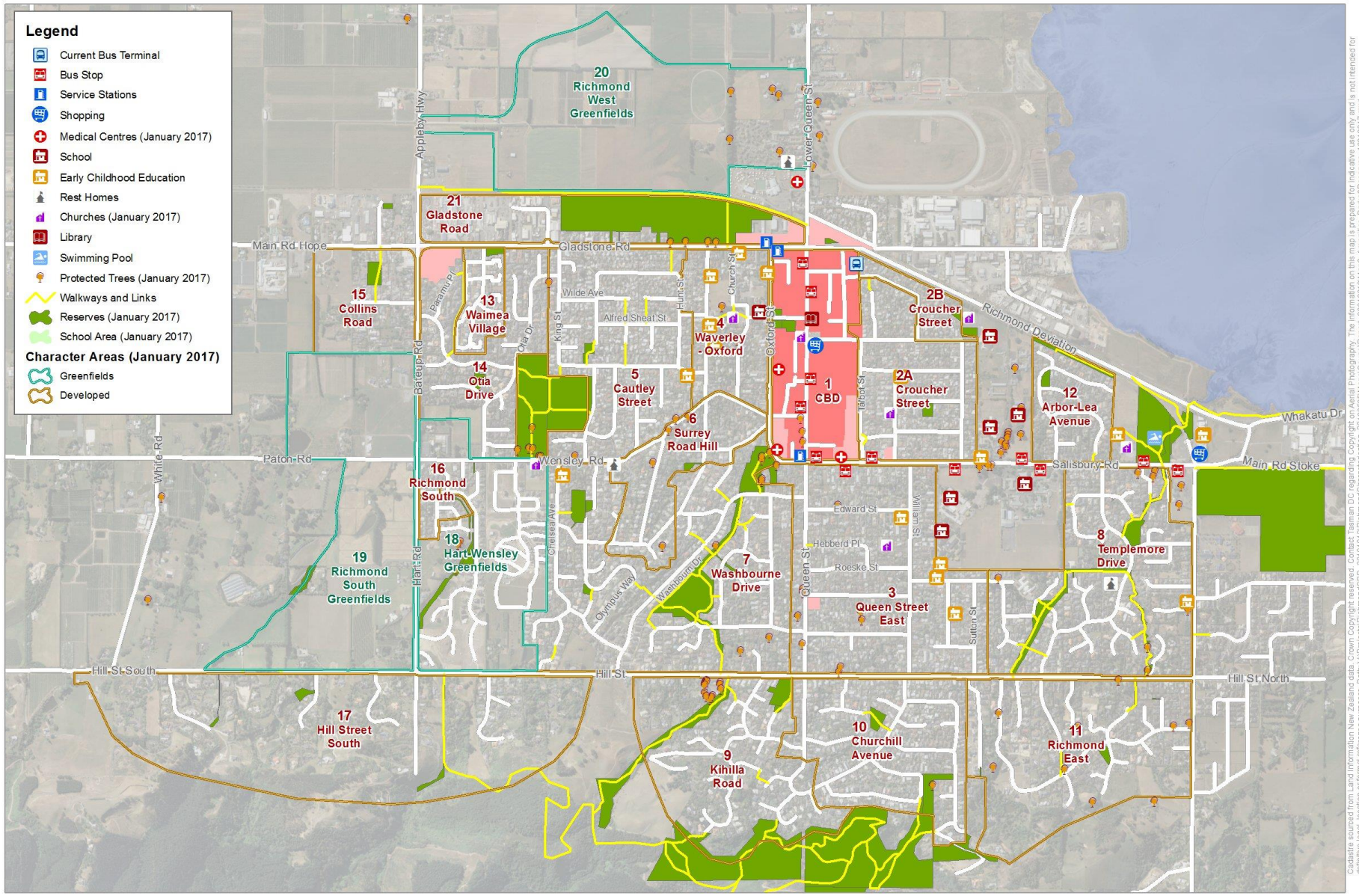

tasman District Council **Map 8. Amenities, Parks & Reserves**

Map exported: Monday, 6 March 2017
Data Sourced: January 2017

1:13,000

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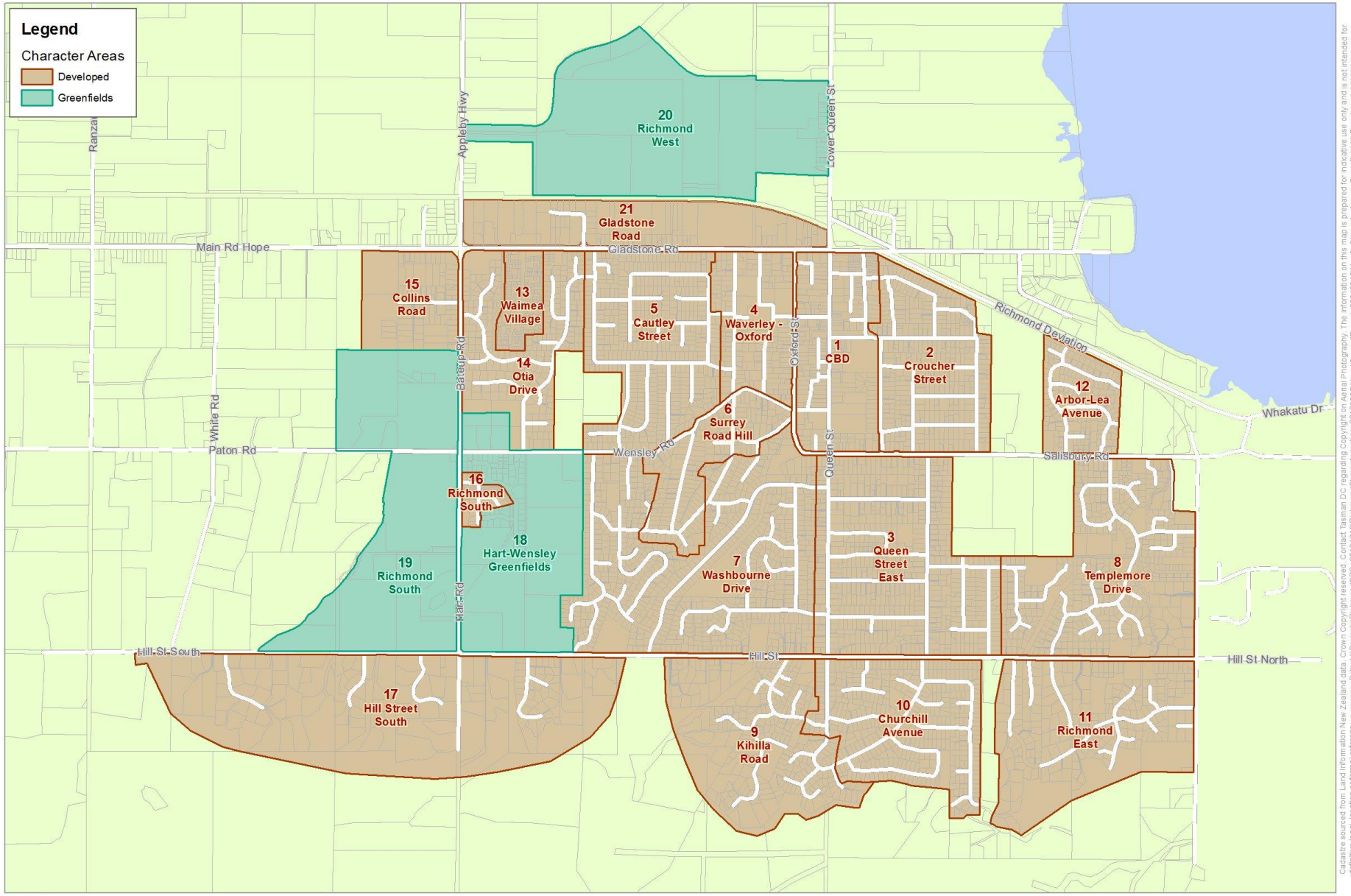

tasman lifestyle

Map 9. Greenfields Vs Developed Areas

Map exported: Monday, 20 October 2014
Data Sourced: August 2014

1:13,500

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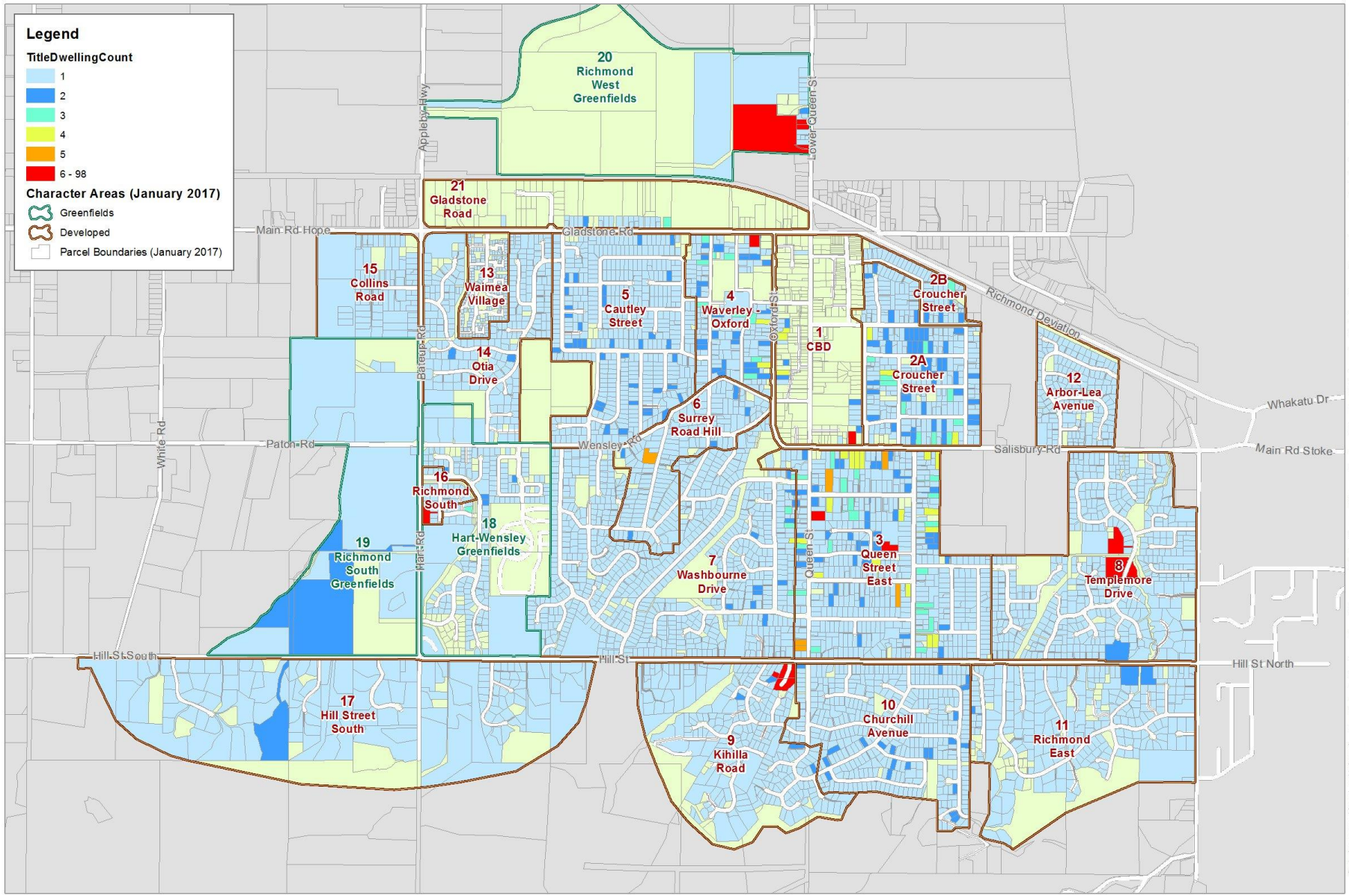

tasman District Council **Map 10. Dwelling Count**

Map exported: Monday, 6 March 2017
Data Sourced: January 2017

1:13,000

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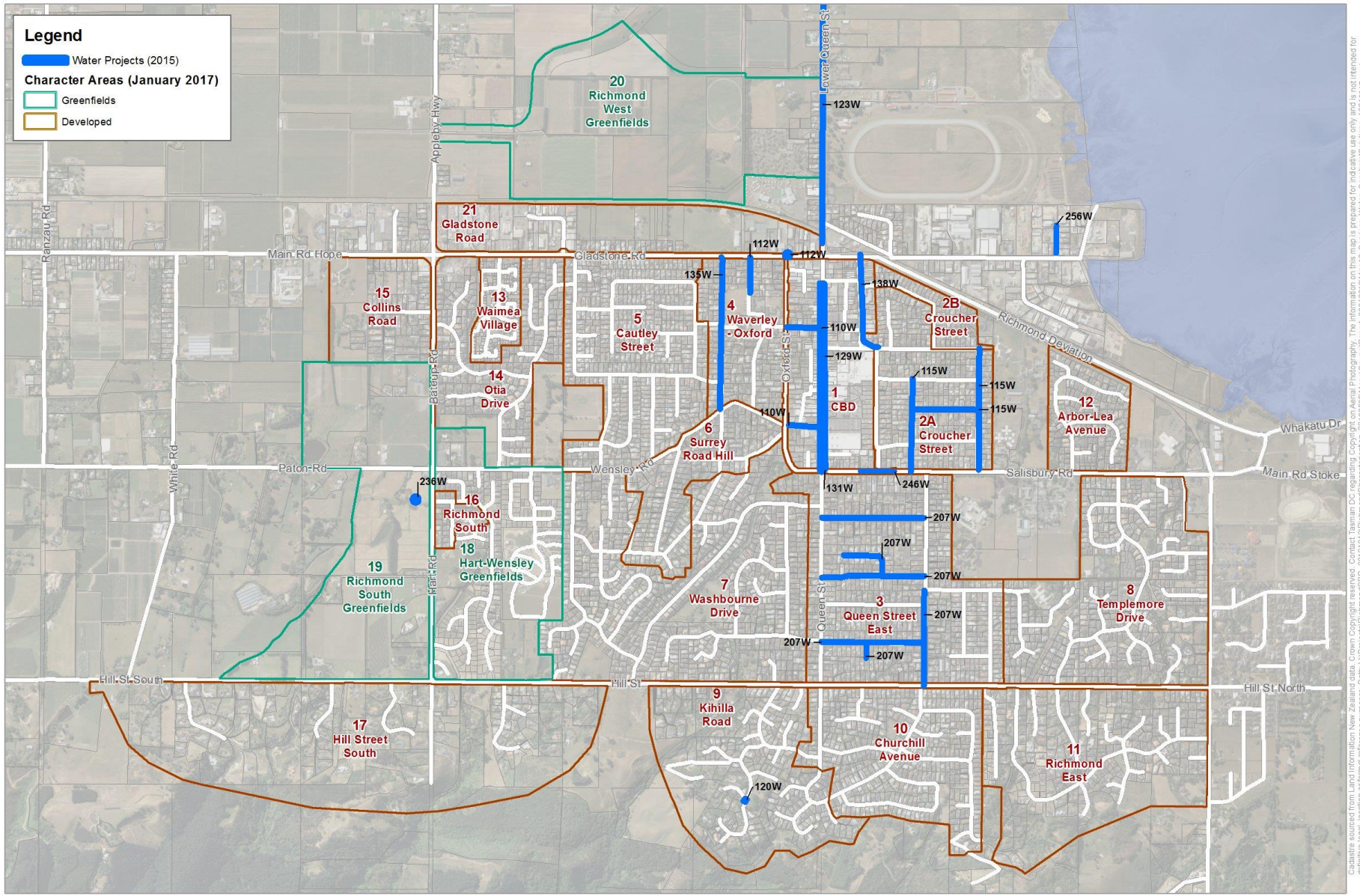

tasman District Council **Map 12. Water Solutions**

Map exported: Monday, 6 March 2017
Data Sourced from Engineering AMP 2015 Project Shapefiles

1:13,000

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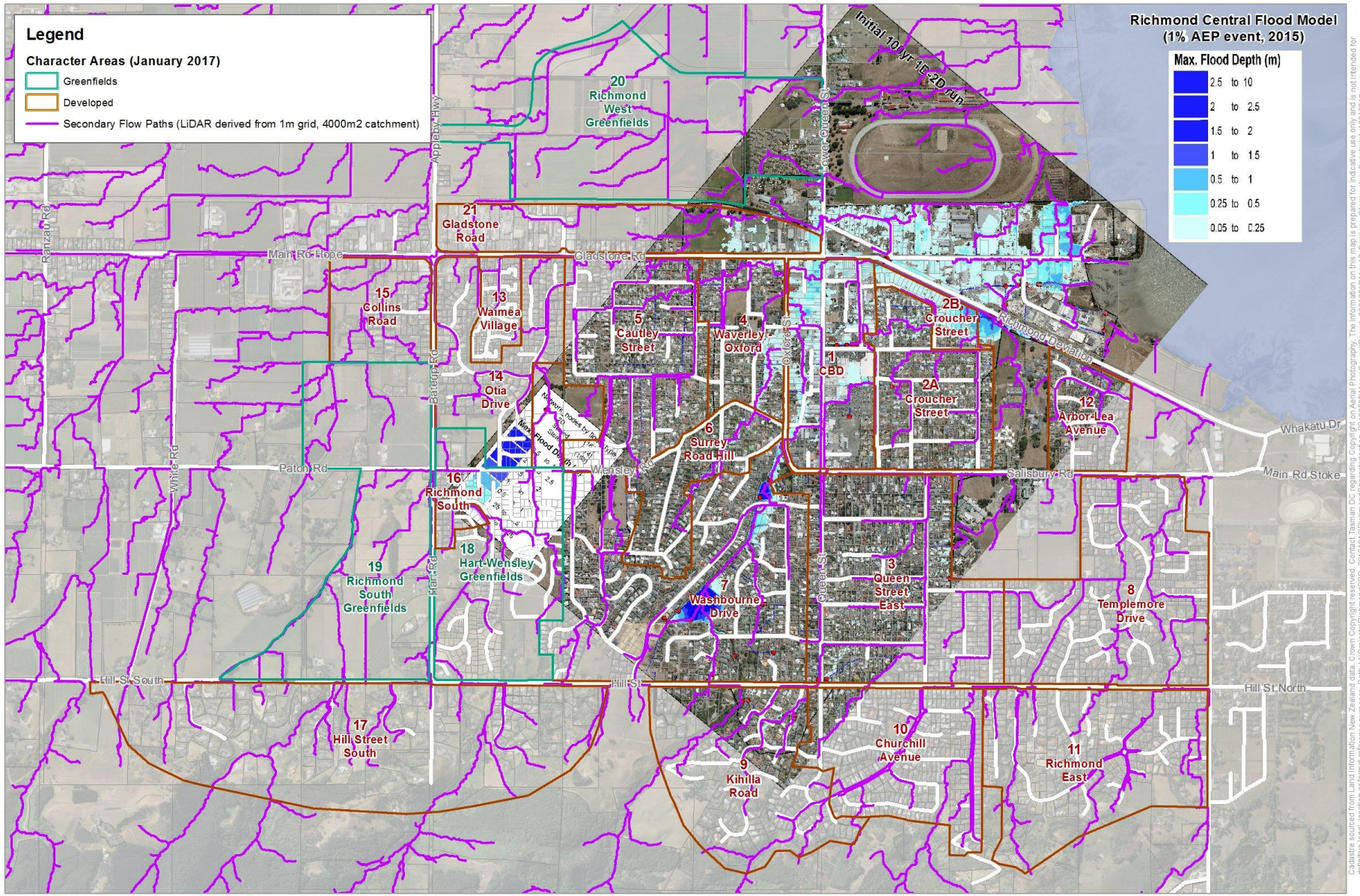
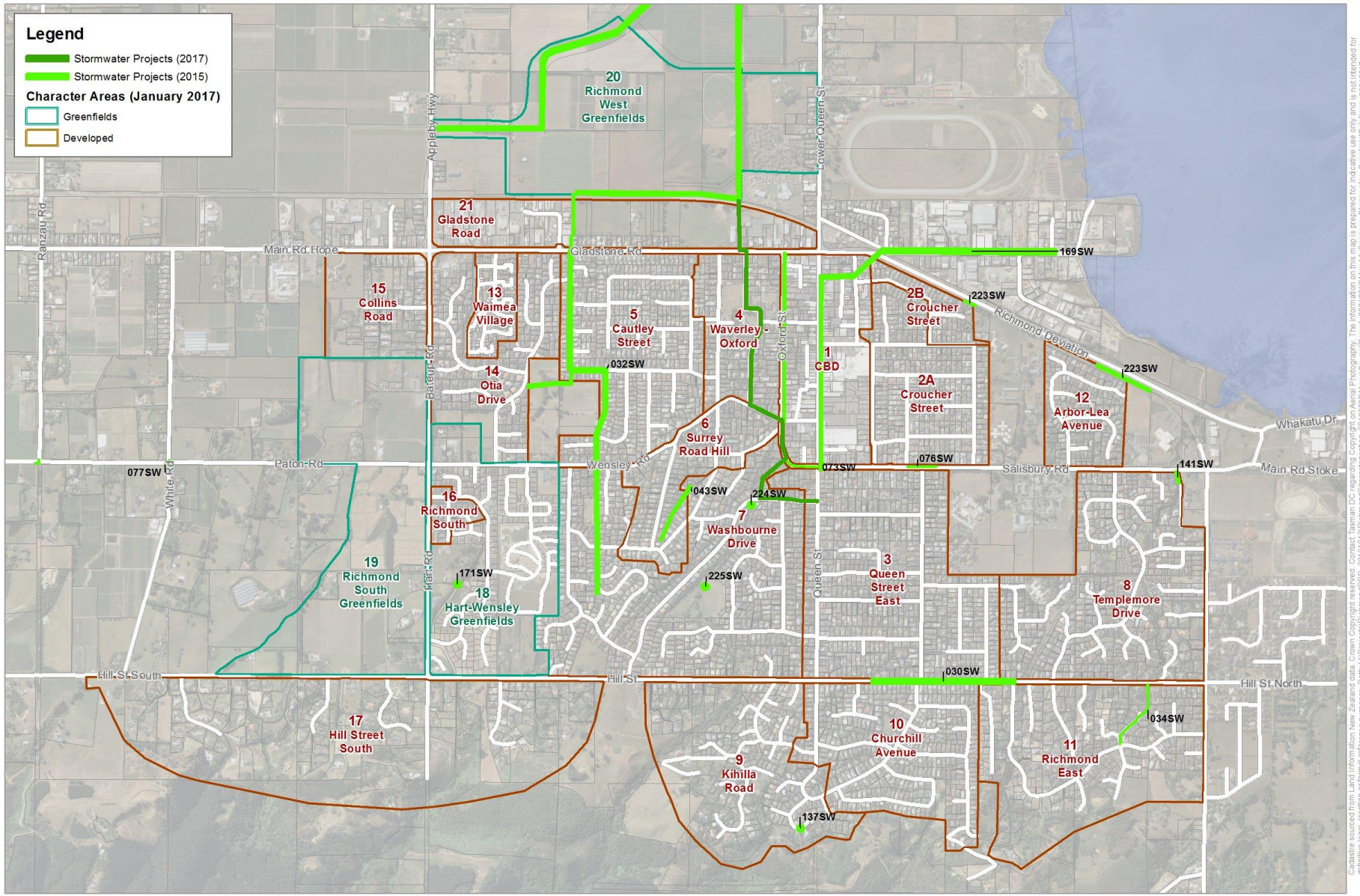


tasman District Council **Map 13. Stormwater Constraints**



tasman district council **Map 14. Stormwater Solutions**

Map exported: Monday, 6 March 2017
Data Sourced form Engineering AMP 2015 Project Shapefiles

1:13,000

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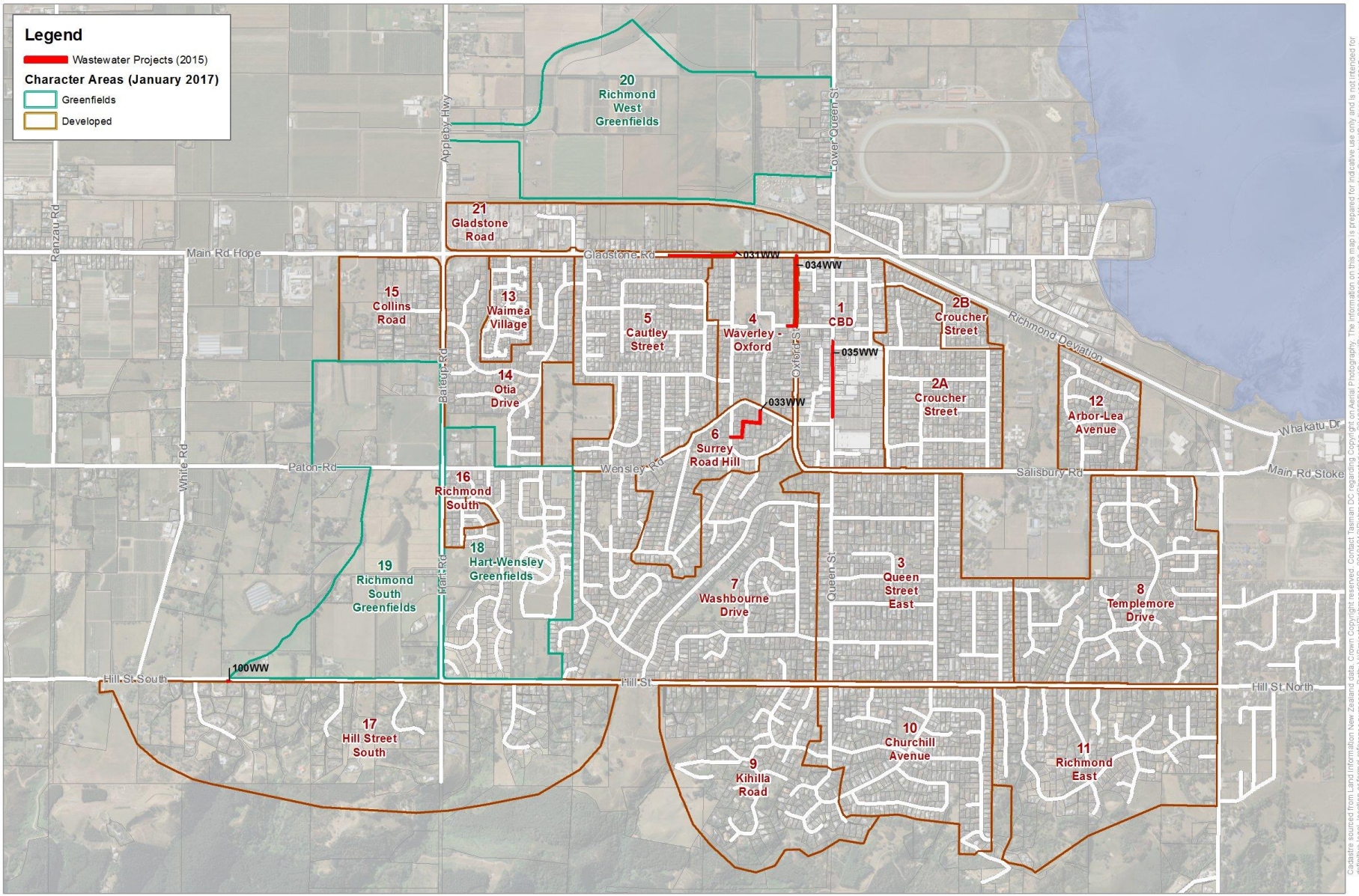

tasman District Council **Map 16. Wastewater Solutions**

Map exported: Monday, 6 March 2017
Data Sourced form Engineering AMP 2015 Project Shapefiles

1:13,000

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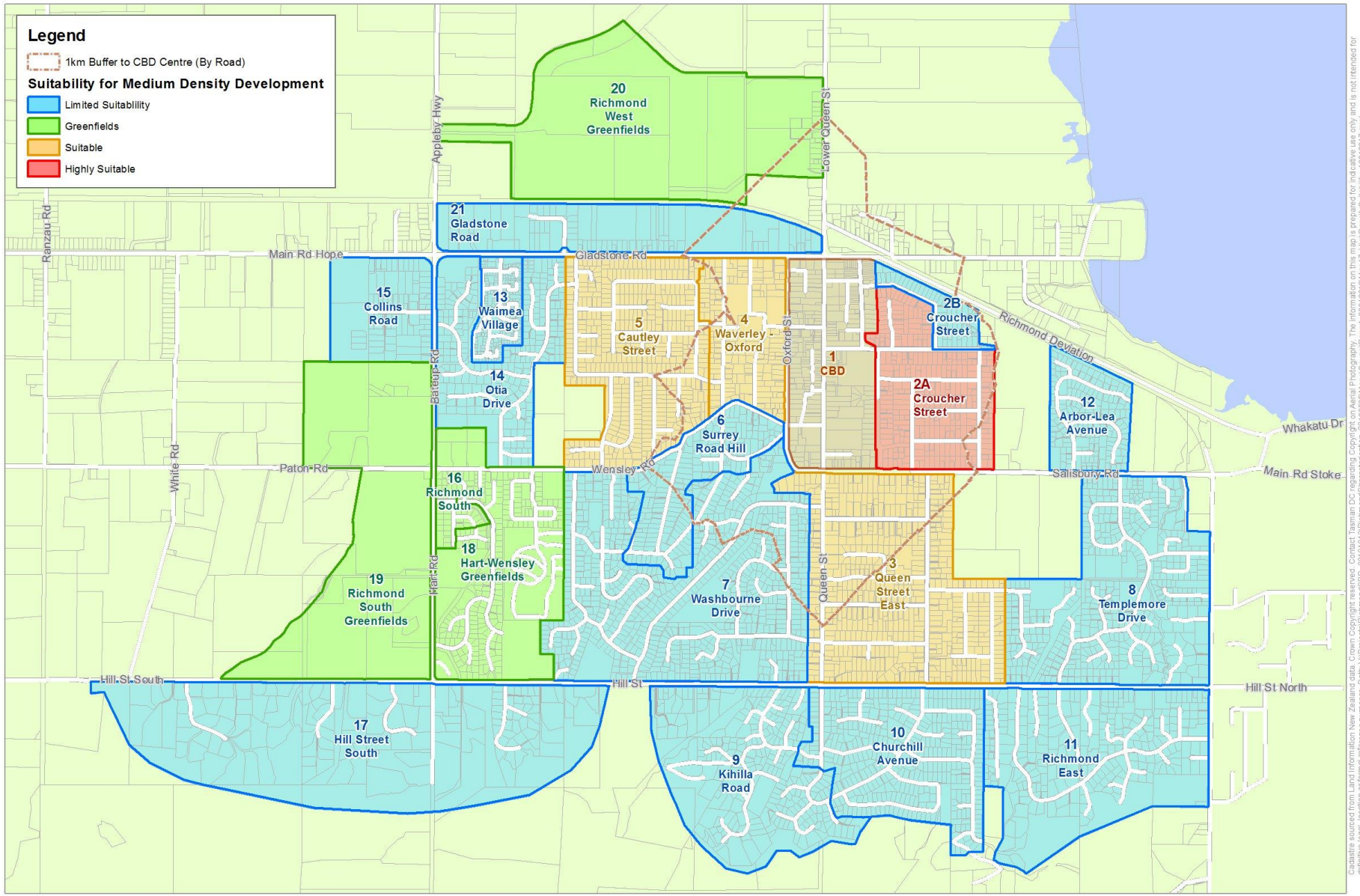

tasman District Council **Map 17. Medium Density Suitability**

1:13,000

0 0.125 0.25 0.5 0.75 1 km

Annex C

Stormwater Provisions

The three new stormwater provisions developed to facilitate a move to a permitted stormwater standard for subdivision and land use consents within RIDA are:

- Developments shall provide 50 Litres of stormwater detention for each square metre of additional impervious area; and
- Development within an area covered by mapped specified y flowpaths shall demonstrate how they will allow the flowpath through the redeveloped site; and
- Infiltration devices of at least $1m^3$ of effective void volume for each development

Additional discussion of these provisions follows.

Detention

The RIDA area sits above the Richmond Deviation, which acts as a dam in high flow situations and results in flooding of houses. The pipe capacity in this area is limited by sea water ingress at current high tide. Unmitigated increases in stormwater flow to the coastal environment is also contrary to the New Zealand Coastal Policy Statement.

The calculation of the amount of detention required for the developments was based on the 1% AEP 1 hour rainfall for the catchment with 2^oC of climate change driven increase ie 67.7mm/hr.

Given an impervious (fully roofed and/or sealed) surface the runoff co-efficient is a base of 0.9 according to the Building Code E1 compliance document. For RIDA, most slopes are relatively flat but it does include land at 10-20% and hence no slope correction factor is applicable.

The Rational Method formula is:

Q = CIA x 2.78; where:
Q = runoff in litres per second
C = runoff coefficient
I = rainfall intensity in millimetres per hour
A = area of catchment in hectares

Hence the runoff per m^2 = 0.9 x 67.7 x 1/10000 x 2.78 = 0.017 L/s. To detain this amount over a 1 hour storm would require 0.017*60*60 = 61L.

Note this is total runoff rather than the increase due to the development. Undeveloped, vegetated ground will deliver 1/3 to ½ of this flow. However, given allowable building coverage of 50% and site coverage of 70% within RIDA, vegetated areas will be minimal. This number has been rounded to 50L and adopted to allow for additional factors including:

- Additional climate change driven rainfall increase and sea level rise; and
- Deterioration in detention system performance.

Flowpath

The flowpath mapping for central Richmond was undertaken based on LiDAR based surface modelling when a GIS tool has been used to trace downhill routes. Flow volumes were also calculated along the route based on the Rational Formula. Key criteria for the flowpath mapping are provided in the correspondence attached between PDP and Tasman District Council (dated 2 June 2017).

The flowpaths have been field verified to ensure that no existing barriers are redirecting flow.

Infiltration

The infiltration device component of the proposed rule framework is designed to provide multiple benefits – including quality of groundwater and run-off temperature control.

The receiving environment for the initial RIDA development area is the lower Jimmy Lee Creek (known as Beach Road Drain), Vercoe's Drain and the Waimea Estuary. The increase in impervious surface within RIDA will reduce the amount of groundwater flow to the creeks and Estuary. While these areas are currently not of high ecological health, there are stakeholders who have ambitions for significant improvement. The National Policy Statement for Freshwater Management sets values and determines whether the waterbodies meet the national bottom line sand hence *need* improvement. They will need at least protection.

The infiltration device requirement will provide for some level of:

- Infiltration which will support base flow in summer, even if limited infiltration occurs in winter
- Runoff temperature control, also of most significance in summer
- First flush contaminant treatment
- Reduction in the speed and volume of runoff.

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solutions for your environment

2 June 2017

The Chief Executive
Tasman District Council
Private Bag 4
Richmond 7050

Attn: Ian McComb

Dear Ian

RICHMOND OVERLAND FLOW PATH MAPPING

1.0 Background

In 2016, Pattle Delamore Partners Ltd (PDP) was engaged by Tasman District Council (TDC) to map overland flow paths and estimate peak stormwater flows for central Richmond.

Overland flow paths (OFPs) indicate the direction flowing water will take as it drains from the upper reaches of a catchment (i.e. the high elevation areas) towards the outlet(s) of the catchment (i.e. the lowest elevation point(s) in the catchment that are not dips and hollows with no exits). The concept is akin to following the path of a single raindrop during a storm as it moves from the point where it first touches the ground until it leaves the area. For Richmond, topography indicates water would tend to flow from the foothills in the southwest through central Richmond towards the southern end of Tasman Bay.

Overland flow, as the name implies, means that water is flowing downhill across the land surface. In urban areas this is typically not the case as stormwater networks (infrastructure related to stormwater conveyance such as pipes, culverts, sumps, pumps, etc.) can convey stormwater runoff in directions contrary to ground slopes. However, if a stormwater network were to malfunction during a storm (e.g. due to blockages or swamped inlets/outlets causing flow to back-up through the network) water would revert to flowing in the direction indicated by OFPs. For this reason, mapping OFPs is useful to highlight areas that will need to convey large volumes of water in the event of a stormwater network failure during large rainfall events. For planning purposes, this may indicate areas that need to be kept free of obstructions so that water may drain freely without causing flooding upstream.

Peak storm flows along OFPs can be estimated provided the size of the area upstream of a point of interest, such as a pipe inlet or channel constriction, is known. TDC requested PDP estimate the magnitude of peak stormwater flows at intervals along the Richmond OFPs assuming a 100 year annual recurrence interval (ARI) storm with a fixed duration of 1 hour. Note that a 100 year ARI storm is equivalent to a storm with a 1% annual exceedance probability (AEP). Roughly speaking this means that over a very long timeframe, a storm of this magnitude would happen approximately once every hundred years with a 1% chance of the storm occurring in any given year. For consenting purposes, TDC indicated they were also specifically interested in locations where the peak flow is calculated to exceed 0.3 m^3/s (300 L/s) to assist review of building consents under Building Code Clause E1 (MBIE, 2014).

2.0 Methodology

The customised software PDP used to map overland flow lines sets up a rectangular grid over the area of interest and then determines the direction of water flow based on elevation differences between grid cells such that water always flows downhill (the path of least resistance). Elevation data for the cells is determined from a digital elevation model (DEM). A DEM is a grid of ground surface elevations (i.e. excluding buildings and vegetation) constructed from Light Detection and Ranging (LiDAR) data collected during aerial surveys.

The flow direction concept is illustrated by the example elevation grid shown in Figure 1. Each cell is assigned an elevation (m) and water flows out of each cell into one of the eight surrounding cells (i.e. north, north-east, east, south-east, south, south-west, west, and north-west). The direction of flow corresponds to the greatest decrease in elevation (i.e. the steepest slope) when moving from once cell to another. This process is repeated across the entire area until all flow directions are known.

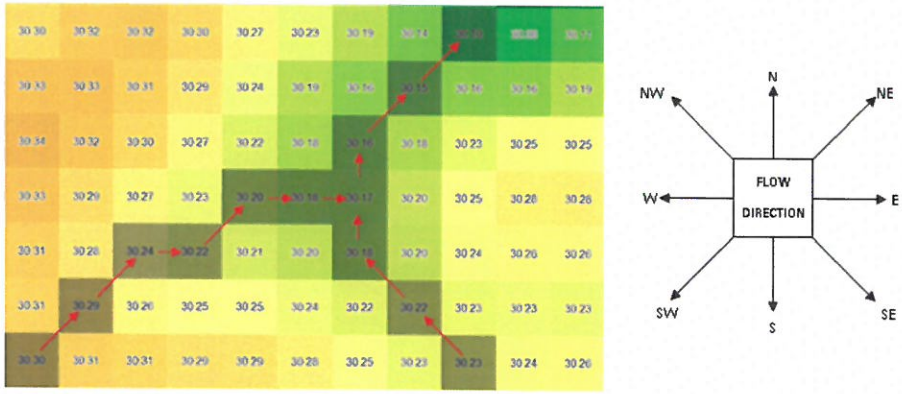

Figure 1: Flow Direction Routing Method

Once flow directions are known, the total area contributing flow to each grid cell in a flow path can be calculated by counting the number of grid cells which flow into a cell at the location of interest. This can be anything from zero (e.g. for a cell at the top of a hill that does not receive any flow from upstream cells) to hundreds of thousands of cells (e.g. a cell at the bottom of a large valley). To simplify the number of results, a minimum threshold contributing area is specified so that only significant flow paths with contributing areas greater than this threshold are considered. For this assessment TDC nominated a minimum contributing catchment of 4,000 m² as an optimum compromise between ensuring that sufficient flow paths were identified for management and identifying too many flow paths with a low chance of generating significant flooding. This result was based on consideration of several alternatives and discussion with Nelson City Council (NCC) staff as cross-regional use of the method is proposed.

Once the total contributing area is known, it can be used in a calculation known as the Rational Method (MBIE, 2014) to estimate peak storm flows. The Rational Method (shown in Equation 1) assumes the magnitude of runoff from an area is directionally proportional to the average rate rainfall is falling (i.e. rainfall intensity in mm/hr) and the size of the area contributing runoff to a specific point (i.e. the total contributing area). The method also requires an area-weighted runoff coefficient to represent the fraction of rainfall expected to be intercepted by vegetation or lost through infiltration to ground as water drains from the area of interest. Highly impervious surfaces such as roads or areas of steep topography are expected to have higher runoff coefficients and hence generate more runoff than higher permeability surfaces such as grassed areas or shallow slope areas.

$$Peak\ Flow\ \left(\frac{m^3}{s}\right) = \frac{Rainfall\ Intensity\ \left(\frac{mm}{hr}\right) \times Area\ (ha) \times Runoff\ Coefficient}{360} \qquad \textbf{Equation 1}$$

The customised software employed by PDP applies the Rational Method repeatedly in the manner described above to determine peak storm flows at fixed intervals along overland flow path lines.

3.0 Input Data

TDC provided PDP with a 1 m grid DEM for use in overland flow path mapping based on the LiDAR data sourced by Council. TDC considered the use of other grid sizes but, in consultation NCC staff, the 1 m grid was chosen as the best representation of the most likely flow direction. The DEM supplied by TDC was modified to incorporate several barriers to water flow (e.g. small walls below the resolution of the LiDAR) around the central business district (CBD) and the outlines of most building footprints (all barrier and footprint data provided by TDC). The processed DEM used for flow mapping is shown in the enclosed map (Figure 2).

- TDC provided PDP with runoff coefficients based on land use classification data. The runoff coefficients used for estimation of flows are shown in the enclosed map (Figure 2: Digital Elevation Model Map

Figure 3). TDC also provided the design rainfall intensity (average values in mm/hr) table shown in Table 1. A fixed storm duration of 1 hour (corresponding to an average rainfall intensity of 54 mm/hr) was assumed for Central Richmond. Design storm durations are usually selected to match the time of concentration (the time taken for runoff from the furthest point in the catchment to reach the point of interest); however in this case TDC indicated a fixed time of concentration would be acceptable as a simplifying assumption.

Table 1: Design Rainfall Intensities (mm/hr)

Annual Exceedance Probability (AEP)	Annual Return Interval (ARI in years)	Storm Duration (min)					
		10	20	30	60	120	360
10%	10	90	69	54	38	27	14
1%	100	146	102	76	54	40	21

4.0 Results

The inputs described above were used in PDP's customised software. A map showing the location of the resulting overland flow paths coloured by the magnitude of peak stormwater flows evaluated at 100 m intervals is shown in Figure 4 (enclosed). This data was also supplied to TDC as GIS shapefiles.

5.0 Discussion

As the map in Figure 4 shows, large flow paths typically follow the direction of major roads; however flow may also break out across roads and travel across residential sections before joining flow along another road (e.g. water to the south-west of Elizabeth Street crosses the road and joins flow along Croucher Street). In general, the 0.3 m^3/s flow threshold is not often reached in residential areas until overland flow reaches a road. In commercial areas near the CBD, large areas of impervious surfaces mean this threshold is can be reached much quicker (e.g. the shopping centre parking lot bounded by Talbot Street, Croucher Street and Queen Street).

It is important to note that the method used to map overland flows has some limitations. The Rational Method used for calculation of flows has been applied assuming it is applicable to Richmond. It is known this method may be conservative for non-hill catchment areas exceeding 15 ha in size (CCC, 2011). Areas contributing to some of the larger flow paths that cross the Central Richmond area can be as high as

several hundred hectares. This conservative approach has been considered acceptable in the absence of any other verified method for the calculation of overland flow by TDC.

Another important limitation to consider is that the overland flow path maps have made no allowances for storage or infiltration of stormwater throughout the catchment in detention areas, which may provide some attenuation of peak stormwater flows. The method used also does not consider capacity limitations which may affect the calculated storm flows. For instance, large stormwater flows travelling down roads is assumed to be possible when in reality, flow depth may exceed the height of the kerb along the road and result in flows heading in several different directions instead of the indicated path along the road. Similarly, the peak storm flow calculations do not account for reductions in peak stormwater flows due to interception and conveyance of stormwater provided by the existing stormwater network (i.e. the entire network is assumed to be not functioning – not allowing for partial failure).

To confirm the peak flow estimates derived using this method and quantify the risk of flooding in areas near large flow paths, more detailed hydraulic modelling which incorporates both the stormwater network and storage effects is required. This is outside the scope of the work undertaken by PDP. The Tasman and Nelson Council are understood to have undertaken this modelling as a separate exercise to complement this flow path modelling.

6.0 Limitations

This report has been prepared by PDP on the basis of information provided by Tasman District Council. PDP has not independently verified the provided information and has relied upon it being accurate and sufficient for use by PDP in preparing the report. PDP accepts no responsibility for errors or omissions in, or the currency or sufficiency of, the provided information.

This report has been prepared by PDP on the specific instructions of Tasman District Council for the limited purposes described in the report. PDP accepts no liability if the report is used for a different purpose or if it is used or relied on by any other person. Any such use or reliance will be solely at their own risk.

Yours faithfully

PATTLE DELAMORE PARTNERS LIMITED

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Reviewed by

Eoghan O'Neill

Technical Director – Water Infrastructure