

High Level Residential Growth Options Matrix Analysis – Informing the Spatial Plan

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Next Review	XX

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Executive Summary - Overview

- 1. Residential growth options for the District to accommodate projected population growth over 30 years have been assessed:
 - i. taking into account the draft vision for South Wairarapa 'Best of country living with the community at the heart of everything we do'.
 - ii. assuming that each of the three towns- Martinborough Greytown Featherston will accommodate growth in response to population projections for the respective towns. That is, the growth model did not assume growth was to be concentrated in only one or two towns but rather shared across each town as one of the core characteristics of the South Wairarapa district is its three towns, each with its own character and qualities, complementing the others. Making provision for growth in each of the three towns:
 - allows existing residents (e.g. older persons who may want smaller homes in the future, families of existing residents who may return, young residents (18+yrs) to form their own households and live in the town they grew up in if they choose to, and for new residents
 - » provides for "choice" which is one the of the 7 C's in the NZ Urban Design Protocol. SWDC became a signatory to the NZ Urban Design Protocol in 2010. Choice is interpreted in the NZ Urban Design Protocol to include choice in terms of the urban form of a town, choice in densities and building types. In terms of the three towns they are each different in character (and form) and having 3 towns with different offerings allows people to choose which town suits their lifestyle option. The assumption is also that the character of the 3 towns will be respected as any change occurs as this is also one of the 7C's of the NZ Urban Design Protocol ((see item 3 iii below about the need for structure plans and collaborative master planning as a delivery tool to achieve desired quality and character)
 - » contributes to meeting demand not allowing for growth in the 3 towns may impact on housing prices because demand will exceed supply. When this happens local residents can find that housing becomes unaffordable, for example rents are raised. It may also generate a demand for housing in "non - residentially zoned areas" such as the requests for key worker housing being sought in the Rural Special Zone
 - » responds to community feedback approximately 60% of feedback indicated a level of comfort with growth providing it is done well; additionally new areas for growth for each of the 3 towns were put forward in stakeholder and community workshops and these growth options have been considered or looked at as part of this assessment in response to community feedback
 - » is consistent with managing resources in a way that enables people to provide for their social, economic and cultural wellbeing. (See section 5, RMA). Housing or shelter is a fundamental need and contributes to peoples' wellbeing.
 - iii. noting that enabling sufficient land supply, 'unlocking land' and enabling housing choice and different housing types to meet demand are important tools or levers that local authorities can use to help address housing affordability. Housing affordability has been raised as a concern during the informal

- consultation period with stakeholders and the community. This includes housing that is affordable for iwi, key workers and young people.
- iv. looking at the potential of rural and coastal hamlet options in Pirinoa Kahutara Tauherenikau Ngawi and Lake Ferry,
- acknowledging that iwi/hapu /whanau may have their own aspirations to develop Papakāinga on Māori land and that engagement with local iwi/hapu/whanau regarding such options is at an early stage, however the draft spatial plan recognises and supports the potential for self sufficient Papakāinga,
- vi. respecting the role of the rural areas of South Wairarapa as prime agricultural areas contributing to food production, employment and amenity, tourism and lifestyle for the district.
- 2. The residential growth options were also developed and assessed taking account of regulatory requirements, the 2020 National Policy Statement on Urban Development; the draft Greater Wellington Regional Framework and regional policies; previous investigations, giving consideration to current patterns of development, feedback from hui with local Marae/Māori trusts/whanau, the community and stakeholder workshops and elected member workshops. Multiple site visits have been undertaken in each of the 3 towns including site visits with elected representatives.
- 3. A high-level assessment across each town and the hamlet options included an assessment against multiple criteria (See section 1.0; Tables 1-4) with multi-disciplinary inputs including from Wellington Water.

 Assumptions (see also Attachment 1) included:
 - Guidelines on development uptake (potential lots/homes achievable) in potential greenfield areas (generally undeveloped land or rural or rural lifestyle land earmarked for potential urban development.)
 - ii. Indicative population projections using a medium population growth scenario.
 - iii. The use of structure plans, master plans and urban design guidelines to ensure quality developments. It is proposed that a collaborative process with landowners, iwi and the community be undertaken for new areas proposed for growth. Structure plans in NZ are generally a high level framework to guide development or redevelopment of an area showing the overall pattern of development, such as the location of key roads, areas of residential development, parks and any commercial areas. Master planning is more detailed versions of a structure plan and helps inform subdivision patterns, street hierarchy, intersections, protected trees, yields of homes, parks, schools and any commercial areas.
 - iv. That sporadic rural subdivision is not to be encouraged and that the community seek to see where "town and country start and finish." In this regard, any proposed new developments are recommended to be contiguous to existing development. This also allows for more efficient servicing of infrastructure. When new greenfield areas are master planned there may be some parts within these areas that are deemed suitable to be developed as a residential greenbelt (large lots). It is noted that when land is zoned, reasonable use of land must be allowed for e.g. rural land provides for rural activities at the same time it provides the amenity of green open space and acts as a "greenbelt".
 - v. That rural areas should be protected for rural production and that the International Dark Sky Reserve initiative also has impacts across the district for development.

- vi. That a hamlet has a small population (in the order of 100 people) with only a few buildings; is generally smaller than a village and traditionally is in a rural setting. That is, population capacity is small and infrastructure and servicing costs may be high.
- vii. That any additional housing, particularly for key viticulture and seasonal workers, as requested by some, in the Rural Special Zone can be considered as part of the upcoming District Plan Review and/or potentially can be assessed as a Restricted Discretionary resource consent for Workers' Accommodation under the existing District Plan. It is noted that the size of the landholding will influence whether or not such a resource consent can be granted to ensure any potential adverse effects are avoided, remedied or mitigated as required by the District Plan. The current Plan anticipates larger landholdings for additional Workers' Accommodation.
- 4. Each town is seen to have a unique character that is valued by the community. Each town offers different lifestyle choices now and going forward. Each town is expected to grow over the next 30 years based on population projections and current market conditions where some are seeking to move from more expensive cities such as Wellington to access more affordable housing or a town and country lifestyle choice. Below is a summary of the recommended growth options for the respective towns following the high level assessment.

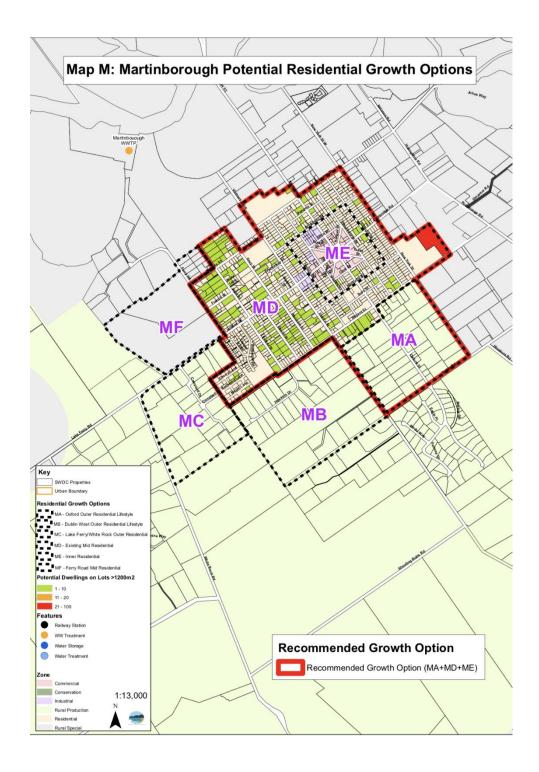
Martinborough

The recommended approach is a combination greenfield and brownfield option MG which includes a greenfield area of approximately 48.8ha labelled MA Oxford Outer Residential Lifestyle (formerly known as Martinborough South East Growth Area) – together with some additional intensification in the existing brownfield urban areas ME (Inner Residential) and MD (Existing Mid Residential). See Map M below.

Additionally further growth options (MB-Dublin Outer Residential Lifestyle, MC- Lake Ferry -White Rock Outer Residential Lifestyle, MF-Ferry Road Mid Residential) have been identified for the purpose of allowing more flexibility and opportunity for the type of growth that may occur in the Oxford Outer Residential Lifestyle Option (which will be determined through a master planning process) and to ensure that if uptake of land (demand for housing) is greater than expected that there is identified land that could be brought forward for development. Community feedback is sought on which of these 3 options MB, MC, and MF from a community perspective is preferred.

This Combination Option would accommodate population growth that would include:

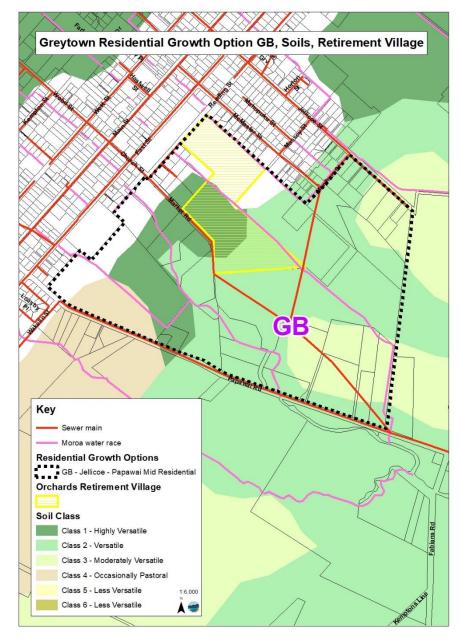
- 1. Oxford Outer Residential Lifestyle (Greenfield -rural/large lot land being converted to lifestyle on land contiguous to the existing urban area with easy accessibility to the town centre)-labelled MA on the map.
- Some intensification (requiring a plan change/and design guide) of the existing residential area in close
 proximity to the town centre/existing commercial shops and village; (labelled ME) on the map to enable
 more diversity and housing choice; and
- 3. Uptake of infill development currently allowed in the existing residential zone (labelled MD); and
- 4. 3 other options MB-Dublin Outer Residential Lifestyle, MC- Lake Ferry -White Rock Outer Residential Lifestyle, MF-Ferry Road Mid Residential) as potential further stages for growth and development. See a Map M of this recommended option below on page 7.



Greytown

The recommended approach in Greytown is for **growth in the immediate and medium term future** to be prioritised in the existing urban area (labelled **GF on the Map G page 9**) which includes the Greytown Development Area along with a greenfield area **Jellicoe-Pāpāwai labelled GB** on the map. This area GB is contiguous with the existing urban area and close to services and amenities.

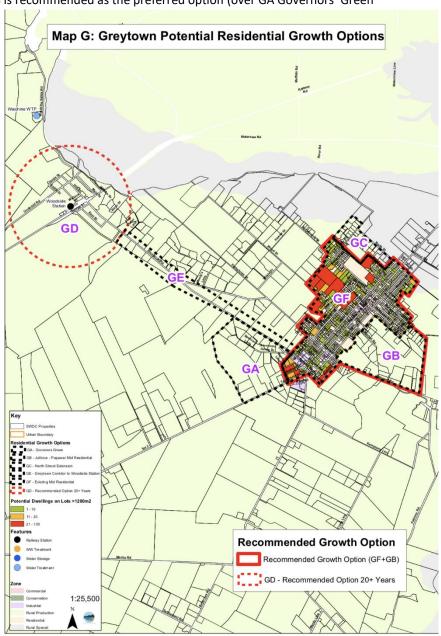
- 1. The option GB is primarily rural in character with the exception of the Orchards Retirement Village under development. Originally the area of GB may not have been seen to be suitable for development owing to the presence of Class 1 and 2 soils. However, staff have identified and checked subsequently that there is a relatively small area of the total area of GB (see dark green on map below) where there are Class 1 soils. Some is already compromised by the Orchards Retirement Village Development. Additionally, the area of Class 2 soils adjoining parts of Jellicoe Road has been subdivided.
- 2. It is noted that the area GA Governors Green Extension also scores well, however the GA area has an overall existing recent large lot development pattern and form that makes it more difficult in terms of implementing future growth scenarios. Part of the reason GA scored the same as GB Jellicoe-Pāpāwai Mid Residential is because it has poorer quality soils.
- 3. It is acknowledged that
 Pāpāwai may be impacted
 by such development and a
 meeting was held with the
 Pāpāwai Marae Whanau on
 17 February 2021 to discuss
 options for growth. It is
 acknowledged that there
 are other Local Māori
 Trusts yet to be consulted
 as advised by the Pāpāwai
 Marae Whanau.



- 4. One growth option that was put forward for consideration by the Pāpāwai Marae Whanau was the area labelled Pāpāwai Kempton's Line -Mixed Residential GG. This has been assessed along with other options as identified in Table 2 below, however it did not score as high as GB Jellicoe Pāpāwai owing to water supply constraints, the presence of Class 2 soils and on the basis that it is presently held as a productive land holding. Additionally, GB Jellicoe to Pāpāwai Mid Residential scored higher than GG Pāpāwai Kempton's Line for accessibility to existing community infrastructure. Community feedback in Greytown through the Council's online survey also identified that 65.7% of residents indicated they did not want large extensions to the town. Some growth was supported providing it is done well and is in character with the existing town. As well, the Woodside Station Junction (GD) residential growth option scored 2nd highest as an option to accommodate longer term growth. For these reasons the option of GG Pāpāwai to Kempton's Line has been removed from the final recommended residential growth option for Greytown.
- 5. On balance, taking all factors into account, including the proximity of GB Jellicoe- Pāpāwai Mid Resdential to the main street of Greytown, GB is recommended as the preferred option (over GA Governors' Green

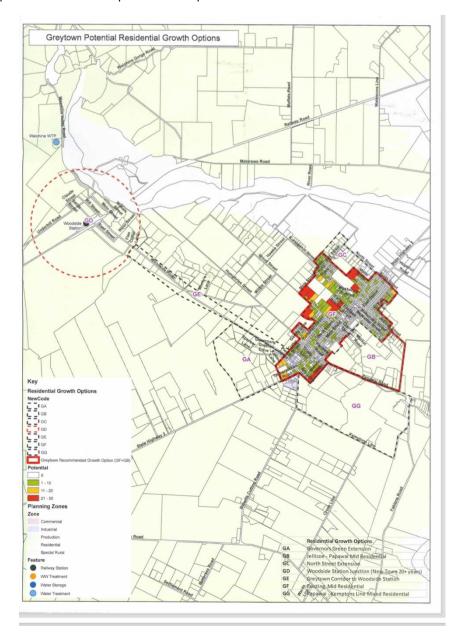
and GG Pāpāwai- Kempton's Line) for additional growth.

- Any structure planning and master planning for growth areas should involve iwi.
- 7. It is noted that the uptake of land for development should be regularly monitored and that the Council should consider a policy that allows for a forward land supply that is ready for development that is, 'shovel ready'. Currently it can take 5-7 years or longer to enable greenfield land to be development ready (with lots/sections serviced and ready to build homes on).
- 8. Additionally, the area known as Woodside Station Junction- a New town-labelled GD scores well as growth at this location is consistent with regional growth policies to encourage Transit Oriented Developments around existing train stations. This is seen as a longer term growth option 20+years.



A Map~G identifying the potential residential growth options for Greytown

Greytown map with the area GG Pāpāwai to Kemtpon's Line.

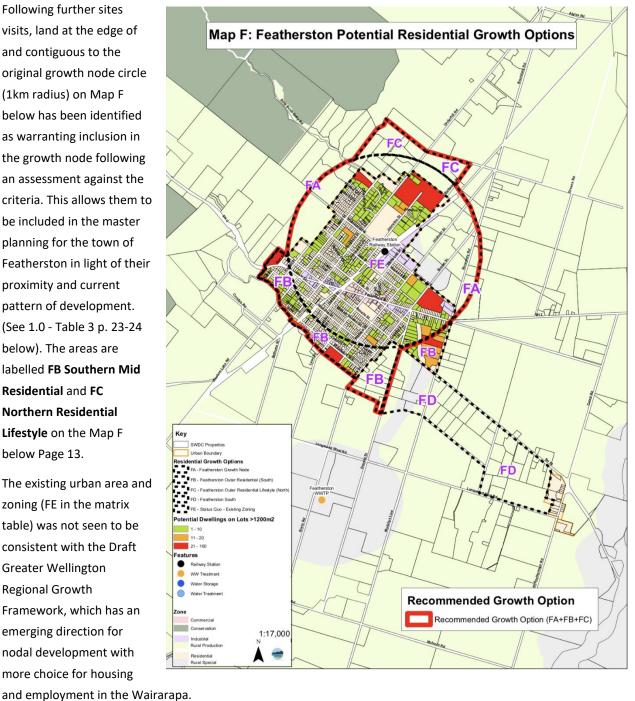


Option NOTE: this option GG was removed following assessment and it was not recommended to be progressed

Featherston

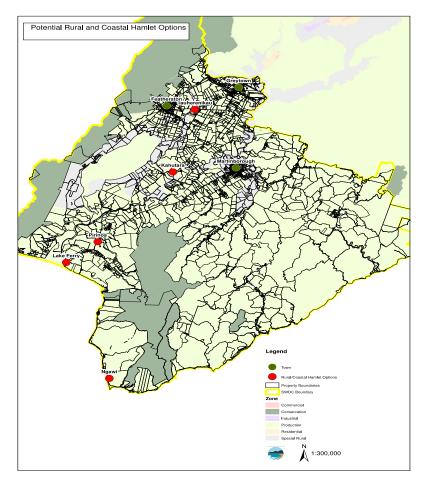
The Featherston Growth Node - labelled FA as identified in the Greater Wellington Regional Framework (GWRF) scored the highest of the options (see Map F below) on the basis that it would provide for the level of population growth anticipated, allow for housing choices, and can be structure planned and master-planned to enable quality developments including transit oriented development. One issue however with this option is the unknown cost of wastewater servicing, and additionally issues of flooding. Featherston South Corridor (FD)did not score well on a range of criteria including servicing, and being in a flood zone.

- 1. Following further sites visits, land at the edge of and contiguous to the original growth node circle (1km radius) on Map F below has been identified as warranting inclusion in the growth node following an assessment against the criteria. This allows them to be included in the master planning for the town of Featherston in light of their proximity and current pattern of development. (See 1.0 - Table 3 p. 23-24 below). The areas are labelled FB Southern Mid Residential and FC **Northern Residential** Lifestyle on the Map F below Page 13.
- 2. The existing urban area and zoning (FE in the matrix table) was not seen to be consistent with the Draft **Greater Wellington Regional Growth** Framework, which has an emerging direction for nodal development with more choice for housing



Hamlet Options

- 1. Five potential 'hamlet' options were considered. Two of these are coastal in nature (Ngawi and Lake Ferry). Both of these scored low owing to coastal hazards (e.g. flooding, seal level rise, erosion, Tsunami zone). Of the 3 'rural hamlets' assessed (Pirinoa- Kahutara-Tauherenikau), Pirinoa scored the highest for potential development owing to the level of existing community infrastructure present including a school, dairy, café, service station and marae together with water supply.
- 2. The key issue for the Council to consider is the extent to which it wants to resource hamlet options (e.g. through plan changes and consultation) and the subsequent provisioning of infrastructure when the population it may serve could be relatively small.



High Level Matrix Assessments

The following Tables 1-4 record scoring of residential growth options undertaken through three facilitated workshops where a multi-disciplinary team of staff (representing planning, infrastructure, policy, amenities, and Wellington Water) came together to assess respective growth options against specified criteria. Total scores helped to identify recommended options for growth. A process of further moderation was undertaken in December 2020 and February 2021 to check consistency of scoring across the towns, noting at the same time however, that what is particularly important is to assess the options within each of the towns on the basis that each town will accommodate some population growth. A score was not given to "other factors" that were identified on the day as they were found to be matters that were taken into account through the other criteria. Some criteria may be weighted higher than others (e.g. owing to statutory requirements), however for the purpose of the high level assessment the criteria were not explicitly weighted. Wellington Water has also

RATING	WATER SUPPLY	WASTEWATER	STORMWATER
Infrastructure	Water Source, treatment, storage and distribution	Wastewater collection, conveyance and treatment	Stormwater network, flooding controls, and water quality treatment devices
1 (low/poor)	 Major constraints on water source, storage or bulk network connection. Major constraint of water source protection for existing water supply. Water supply requires significant capital investment in infrastructure (e.g. new source, new WTP, new reservoirs etc. 	 » Major constraints in wastewater servicing, e.g. major trunkmain connection and/or pumping station required. » New WWTP required to meet growth in areas without connection to the existing wastewater treatment system (e.g. due to geographical location). 	» Flooding has been identified from past experience or known issues.
3 (mid)	 Storage capacity does not meet existing levels of service, growth will exacerbate deficit. Requires new water supply network, which may include new bulk water connection. 	 New trunkmain required to connect to existing network. Increase in capacity of existing WWTP. 	» Stormwater can be reasonably managed using typical development controls and local infrastructure upgrades
5 (high/very good)	» Serviced with development infrastructure: capacity is available to meet demand in all aspects of water source, treatment, storage and distribution,	» Serviced with development infrastructure: capacity is available to meet demand in all aspects of wastewater collection, conveyance and treatment.	» Serviced with development infrastructure: stormwater network, or suitable devices to demonstrate management of stormwater quantity and quality.
			» Flooding identified as very unlikely (e.g. topography, soils) or infrastructure already capable of managing expected impacts.

provided a Summary Document 25 February 2021 of its inputs and scoring methodology for each of the three Waters. The table below (p15) explains Wellington Water's rating table for the qualitative assessment.

Additionally it is noted that in Martinborough the existing urban areas scored the highest overall, owing to the existence of community and physical infrastructure to serve the community. However, the recommendation is to include other greenfield areas, as areas for growth, in addition to acknowledging growth can also occur with the exiting urban boundary, otherwise there may not be sufficient land for growth. The price of homes may also be less affordable if supply does not meet demand. Housing affordability has been raised as a concern by the community.

		ТАВ	LE 1: MARTINB	OROUGH TOWN CE	NTRE HIGH L	EVEL GROWT	H OPTIONS AS	SESSMENT MA	TRIX				
Criteria				Sc	ore 1 (low/	poor) – 5 (hi	gh/very good	d)					
(Score & Reasons)				Infra	astructure	I							
Options	Quality Capacity to meet popn growth-takes account of how well population can be accommodated taking account of design criteria e.g. connectivity	Soil contaminatio n	Water Supply Fire-flow constraints	Wastewater Based on SWDC AMP 2018: WWTP currently sized for 2000 popn; network upgrade to avoid blockages/ overflows	Storm water	Public Transport	Community Infrastructur e (eg accessibility to schools, parks, health facilities, services, shops)	lwi Views Matters important to Iwi	Community Views	Hazards (incl Liquefactio n) (Avoid)	Soils Class 1-3 (Avoid)	Other factors e.g. Roading	Total Score
MA (M 1. 48.8ha)	Score: 4	Score: 4	Score: 3	Score: 3	Score: 3	Score: 2	Score: 4	Score: 3	Score: 3	Score: 4	Score: 5	Score:	38
Oxford Outer Residential Lifestyle	Reasons 200 + lots approximately enabled; existing pattern of development likely to be able to more easily align with existing grid pattern	Reasons Old sheep dips Pesticides Old orchards Dumps	Reasons Little buffer in storage capacity Location of WTP to be looked at Fireflow constraints High risk for WTP from Liquefaction Earthquake risks Can build in mitigation measure eg requirement for grey water tanks for new developments	Reasons Servicing through main trunk line option Mitigation to increase capacity eg leakages Has capacity for around (160 person /70hh) High risk for WWTP from liquefaction Earthquake Risks	Reasons Flooding in MGSA Perimeter diversion @ \$3.5M upstream Pond \$2.1M Poorly drained soil Clay based but other ways to get through & on-site solns alternative FCs at plan change	Reasons Commuter traffic to Featherston – Train to Wtgn 3; are buses – timing etc	Reasons 10-15 min walk to centre from edge Oxford St/Todd St — basic block structure can mimic town's structure	Reasons Waahi tapu mitigation or avoidance; working group on Waahi tapu to identify; iwi engagement commenced and ongoing	Reasons Mixed views, mixed needs. Key workers needs. Ex Wtgn ¼ acres. Retirees. Affordabilit y	Reasons Low probability high impact. No immediate direct impact Desk top study only. High risk for WWTP W.Supply	Reasons Doesn't fall into Class 1-2 soils	Reasons Martin- borough only town with heavy road bypass New York St;Roadin g upgrades required	

		TAB	LE 1: MARTINB	OROUGH TOWN CE	NTRE HIGH L	EVEL GROWT	H OPTIONS AS	SESSMENT M	ATRIX				
MB (M 2. 67.8	Score: 3	Score: 4	Score: 2	Score: 3	Score: 2	Score: 2	Score: 3	Score: 3	Score: 3	Score: 4	Score: 5	Score:	34
ha) Dublin Outer Residential Lifestyle	Reasons As above but less connected to Square; Hawkins a cul de sac of large lots	Reasons As above	Reasons Greenfield area will require onnection to water supply. There are no connections in M2. Also see comments for M1 except connections are in M1 there are no connections in M2	Reasons As above	Reasons Info missing Flooding Need to identity overlaid flow paths — mitigation setback	Reasons As above	Reasons Slightly further from town centre; less direct connection- line of sight	Reasons As above	Reasons As above	Reasons As above Desk top study only	Reasons	Reasons Roading upgrades would be required	
M C (M 3. 46.1 ha) Lake Ferry White Rock Outer Residential Lifestyle	Score 3 Reasons Similar to M2	Score: 4 Reasons As above	Score: 2 Reasons Same as MB (M2)	Score: 3 Reasons As above	Score: 2 Reasons -As above Info on costs missing	Score: 2 Reasons As above	Reasons More isolated. Greater upgrade of road Jellicoe Rd required	Score: 3 Reasons As above	Score: 3 Reasons As above	Score: 4 Reasons	Score: 5 Reasons As above	Score: Reasons Roading upgrades would be required	33
MD (M 4. (251 lots) Existing Mid Residential (Infill development in existing urban area on sites> 1200m2)	Score: 2 Reasons Assume only 25% take up of potential allows for around 62 -63 lots only	Score: 4 Reasons As above	Score: 4 Reasons Can use existing spare capacity	Score: 5 Reasons Capacity for existing lots based on 25% uptake	Score: 4 Reasons Onsite soakage	Score: 3 Reasons Walk to bus stop for connection to Featherston -Wtgn. Bus also to Greytown/ Masterton	Score: 4.5 Reasons Town footprint small and has walkable catchment to most community infrastructur e; no college	Score: 3 Reasons As above	Score: 3 Reasons As above	Score: 4 Reasons As above Desk top study only	Score: 5 Reasons As above	Score: Reasons	41.5

		ТАВ	LE 1: MARTINBO	OROUGH TOWN CE	NTRE HIGH L	EVEL GROWT	H OPTIONS AS	SESSMENT M	ATRIX				
ME (M 5. (71 Lots) Inner Residential (increased option for density on sites > 960m2) increased around adjoining existing commercial/retail with design guide	Score: 1 Reasons Allow 25% take up enables only 17 -18 lots only	Score: 4 Reasons Fuel tanks/ or industry	Score: 4 Reasons	Score: 5 Reasons Capacity for existing lots based on 25% uptake	Score: 4 Reasons Onsite soakage	Reasons Walk to bus stop for connection to Featherston -Wtgn. Bus also to Greytown/ Masterton	Reasons Town footprint small and has walkable catchment to most community infrastructur e; no college	Score: 3 Reasons As above	Score:3 Reasons As above	Score:4 Reasons As above Desk top study only	Score: 5 Reasons As above	Score: Reasons	40.5
M F 36.7 ha Ferry Road Mid Residential	Score: 3.5 Reasons Need to redesign Jellicoe Rd	Score: 4 Reasons Old airstrip fuel contained	Reasons Water main new connection required & upscaling low pressure	Reasons Upgrading WW pump station required here because lower & requires pumping	Reasons Main flow through from town size — 100yr flood protection zone Reg Council = natural stream	Reasons Bus go Weld St / Masterton Train Station	Score: 4 Reasons	Score: 3 Reasons	Score: 3.5 Reasons Positive interest	Reasons No liquefactio n No known flooding	Reasons Grapes next door. Same soil type as other Rural Special. Spray drift? Frost fans	Score: Reasons	34
MG (M 6) Combination Options MA, MD & ME)	Score: 5 Reasons Better meets overall capacity goal (minimum of 300 homes/30 years based on Infometrics popn statistics (note; these may be a little low); better meets NPS UD and NZ Urban Design Protocol (choice/context/connectio ns)	Score: 4 Reasons As per M1-M5	Score: 3 Reasons	Score: 3-4 Reasons	Score: 3 Reasons	Score: 2 Reasons	Reasons Based on reasons outlined for M1,4 and 5	Score: 3 Reasons As above	Score: 3 Reasons As above	Score: 4 Reasons Desk top study only	Score: 5 Reasons As Above	Score: Reasons	39-40

		T/	ABLE 2: GREYTO	WN TOWN CENTRE	: HIGH LEVE	L GROWTH O	PTIONS ASSES	SMENT MATR	ıx				
Criteria				Sco	ore 1 (low/p	oor) – 5 (hi	gh/very good)					
(Score & Reasons)				Infra	structure								
Options	Quality Capacity to meet popn growth takes account of how well population can be accommodated taking account of design criteria e.g. connectivity	Soil con- tamination	Water Supply: Fire flow constraints; new water mains reticulation greenfields	Waste water: Based on 2018 SWDC AMP: New WW to service greenfields e.g. Woodside; WWTP sized 2800 popn	Storm water	Public Transport	Community Infrastructur e (eg accessibility to schools, parks, health facilities, services, shops)	lwi Views Matters important to lwi	Community Views	Hazards (incl Liquefactio n)	Soils Class 1-2	Other e.g. know where town/ country starts finishes	Total Score
GA (G 1 133.6 ha)	Score: 2.0	Score: 3	Score: 3	Score: 2	Score: 4	Score: 3	Score: 4	Score: 3	Score: 3	Score: 3.5	Score: 5	Score:	35.5
Governors Green Extension	Reasons Exclude college / cemetery / industrial area from total hectares; adjoins existing urban area to south; existing pattern of development will impact on potential capacity and size of lots	Reasons Potential contamination from old dump into bore water; urbanisation requires reticulation	Reasons Principle of costs for greenfield	Reasons Has some servicing. Existing constraints/ blockages. Cost & affordability of greenfield. Capacity in WWTP needs to go up	Reasons Limited info. Good drainage. Has water races	Reasons Bit more convenient for bus train. Rely on car	Reasons Proximity to school, health centre, village	Reasons	Reasons	Reasons	Reasons Poorer quality than M'borou gh	Reasons Noise from SH2	
GB (G 2, 85.5 ha)	Score: 4.0	Score: 3	Score: 3	Score: 2	Score: 3	Score: 3	Score: 4.5	Score: 3	Score: 3.5	Score: 3	Score:3.5	Score:	35.5
Jellicoe to Pāpāwai Mid Residential	Reasons Exclude retirement village from total hectares. Check for Māori land. Less land because of Pāpāwai stream headwaters; exclude class 1 soils; good proximity to township at eastern edge	Reasons Use to be market gardens - remediation	Reasons WTP at Memorial Park, require new water connections. Start of Pāpāwai stream-lwi views.	Reasons On wastewater main to WWTP, however, extn will be required. Start of Pāpāwai stream lwi views.	Reasons Spring – High H ₂ O table. S/W can't go to river very wet	Reasons Consistent with G1	Reasons As above, and closer to village	Reasons Lot of Māori land local marae. Pāpāwai stream starts in G2. Impact of wastewater on iwi WWTP next to marae. Expansion increases flows	Reasons Some land owners adjoining retirement village have approache d council for residential developme nt	Reasons Moderate liquefactio n, not flooding	Reasons Class 1&2 soils;	Reasons Note soils could impact overall on result	

		T/	ABLE 2: GREYTO	WN TOWN CENTRE	: HIGH LEVE	L GROWTH O	PTIONS ASSES	SMENT MATR	IX				
GC (G 3. 33.8 ha)	Score: 2.5	Score: 2	Score: 3	Score: 2	Score: 2	Score: 2	Score: 4	Score: 3	Score: 3	Score: 2	Score: 3	Score:	28.5
North Street Extension	Reasons : Issue of class 1 soils plus potential park	Reasons Previous market garden	Reasons WTP at Memorial Park; can supply because network in close proximity	Reasons : As above	Reasons Water races provide opportuni ty for storm water mitigation	Reasons Bus service to train stn. Bus service between towns. Greytown is not connected — walking harder	Reasons Library/ Pools, School, Medical Facility, Parks, Tennis etc. Dentist, Shops, Service Stn Kuranui College user groups	Reasons	Reasons	Reasons Flood zone. Moderate liquefactio n. Potential contaminat ion. Market gardens. Overland flow paths needs channelling	Reasons Poor soakage. Large lot comprom ised soils to some degree; already comprom ised	Reasons Cycle trail may be extended to G3. Potential new park. Have been requests for upgrade footpaths	
GD (G 4. 313.4 ha) Woodside Station Junction (New Town – 20+years) Potential 500 new dwellings	Score: 5 Reasons : note GWRF sees this as longer term 20 year growth option	Score: 3.5 Reasons Old railway; some remediation probably needed	Reasons Closer to WTP, less km of piping, Wahine WTP serves Featherston 490 capacity	Score: 2 Reasons WWTP other wide town (2800). Affordability/ constraints more popn. Upgrade capacity plus cost of piping ↑ costs	Score: 4 Reasons	Score: 4 Reasons Train to Wtgn. Train to Featherston . Cycling Bridge approved connect Featherston / Greytown	Score: 2 Reasons Community infrastructur e will follow developmen t. Is 5km from Greytown.	Score: 3 Reasons	Score: 3 Reasons	Score: 3.5 Reasons Consistent with G1	Score: 5 Reasons Consisten t with G1	Score: Reasons Aligns to Regional Growth Frame- work	38.0
GE (G 5. 37.6. ha) Greytown Corridor to Woodside Station	Score: 2 Reasons ; Ribbon development; not consistent with seeing defined town and country edge	Score: 4 Reasons	Score: 3 Reasons	Score: 2 Reasons Pipe or onsite disposal	Score: 4 Reasons Onsite S/W water races	Score: 3 Reasons	Score: 2.5 Reasons	Score: 3 Reasons	Score: 3 Reasons Resistance to rural subdivision	Score: 2 Reasons In moderate liquefactio n	Score: 5 Reasons As above	Reasons Ribbon Develop. Across town/ country boundary	33.5

		T/	ABLE 2: GREYTO	WN TOWN CENTRE	: HIGH LEVE	L GROWTH C	PTIONS ASSES	SMENT MATR	IX				
GF (G 6). Existing Mid Residential (includes Greytown Development to the East) 220 lots are greater than 1200m2 and have	Score: 2.5 Reasons Capacity dependent on market willingness to subdivide in existing areas; character/heritage important to protect	Score: 4 Reasons Mitigation	Score: 3 Reasons Fireflow constraints	Score: 4 Reasons Upgrading pipe now	Score: 4 Reasons	Score: 4 Reasons	Score: 5 Reasons Close to village, services & amenities and college	Score: 3 Reasons	Score: 3 Reasons	Score: 2 Reasons As above	Score: 5 Reasons Urbanise d already	Score: Reasons Heritage/ Trees	39.5
a potential based on site size only to yield around 1034 additional dwellings. Assume only 25 % yield = 258 dwellings													
G G (212 ha) - Pāpāwai Kempton's Line Mixed Residential Papakainga	Score: 4 Reasons	Score: 4 Reasons Small in industrial area farming networks	Reasons Nothing there. New network required on outskirts probably capacity in existing water supply treatment plant	Score: 2 Reasons Nothing there. WW main cross Pāpāwai Stream — more consents challenge/cost option to do main along Pāpāwai	Reasons Natural direction S/W along Pāpāwai Stream irrigation there quite dry. Natural streams water course	Score: 2.5 Reasons	Reasons Close to school, medical centre, marae, DOC reserve	Score: 3.5 Reasons Pāpāwai Marae Whanau Support	Score: 3 Reasons	Score: 3 Reasons	Reasons Min Class 1 Class 2 Class 3&4	Reasons Kempton's heritage. Productive unit now. Irrigation hard	32.5

			TABLE 3: F	EATHERSTO	N TOWN CENTR	E: HIGH LEV	EL GROWTH OF	PTIONS ASSE	SSMENT MAT	RIX			
Criteria (Score &					Score	e 1 (low/po	oor) – 5 (high/	very good)					
Reasons)	Quality Capacity to				Infrastructur	e							
Options	meet popn growth takes account of how well population can be accommodated taking account of design criteria e.g. connectivity	Soil con- tamination	Water Supply	Waste water: WWTP sized for 5000	Storm water	Public Transport	Community Infrastructure (e.g. accessibility to schools, parks, health facilities, services, shops)	lwi Views Matters important to lwi	Community Views	Hazards (incl Liquefaction)	Soils Class 1-2	Other	Total Score
FA (F 1. 314.1	Score: 4	Score: 4	Score: 3	Score: 2	Score: 3	Score: 4	Score: 4.5	Score: 3	Score: 3.5	Score: 4	Score: 5	Score:	40
ha) Featherston Growth Node Development (as per GWRC Framework- 1882 new dwellings)	Reasons Take out sports stadium & dog park; note that Featherston can be structure planned and master- planned to enable quality nodal development	Reasons	Reasons Capacity similar Greytown	Reasons Consents running out. New system. Costs high. Quality of discharge	Reasons Habitable homes not flooded. Garages get flooded. Soakage- pits on site. Water off hills. Run- off quicker than Greytown	Reasons	Reasons Proximity to station, town centre, parks etc No college. Smaller library	Reasons	Reasons	Reasons Not compromising. No liquefaction. Small remediation etc	Reasons Urbanised already	Reasons Aligns with GWRC Framework Windy	
F B (16.5 ha)	Score: 4	Score: 4	Score: 3	Score: 2	Score: 2	Score: 3.5	Score: 4	Score: 3	Score: 3	Score: 3.5	Score: 4	Score:	36
Southern Mid Residential	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	
Residential			Flooding	Extend to Donald St. Pump up	Very poor springs & drain		Close to school			High H ₂ 0 table bogging	Class 2&3		
F C (26.2 ha)	Score: 3.5	Score: 3.5	Score: 3	Score: 2	Score: 3	Score: 4	Score: 4.5	Score: 3	Score: 3	Score: 4	Score: 4.5	Score:	38
Northern Residential	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	
Lifestyle	Bush covenants	Adjoining site used as a clean fill potential	Need to build network around it otherwise good supply & capacity	Extending network downhill	Uphill					Fault line at edge but on bush	Class	Unknown consent Quarry. Cycle trail. Heritage elements	

			TABLE 3: F	EATHERSTO	N TOWN CENTE	RE: HIGH LEV	EL GROWTH C	PTIONS ASSE	SSMENT MA	TRIX			
FD (F 2).	Score: 3	Score: 4	Score: 2	Score: 2	Score: 2	Score: 3	Score: 3	Score: 3	Score: 3	Score: 3	Score: 3	Score:	31
117.5) Featherston	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	
South Corridor	Ribbon Development	Nothing apparent	Nothing there need to build network to service area	Nothing there; pumping everything on site; disposes a lot & properties have bore water	Donald's Creek Flood zone	Buses go through; Next to State highway; Not walkable to train station.	School in closer proximity			Flood zone Reasons Engineering costs	Class 1 at Eastern end . Class 2 at Western end	Ribbon Dev.? However connecting existing communities	
FE (F 3). 799)	Score: 2	Score: 4	Score: 3	Score: 3	Score: 2	Score: 4	Score: 4.5	Score: 3	Score: 3	Score: 4	Score: 5	Score:	37.5
lots Existing Mid	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	
Residential (Existing Zoning)	Doesn't enable more diversity; inconsistent with draft GWRGF	Already urban		Quality still an issue						See F1	Same as Greytown. Also see F1		

					Т	ABLE 4: HAM	LETS						
Criteria (Score &					Score	e 1 (low/poo	r) – 5 (high/very	good)					
Reasons)					Infrastruct	ure							
Options	Quality Capacity to meet popn growth	Soil con- tamination	Water Supply	Waste water: WWTP sized for 5000	Storm water	Public Transport	Community Infrastructure (eg accessibility to schools, parks, health facilities, services, shops)	lwi Views Matters important to Iwi	Community Views	Hazards (incl Liquefaction)	Soils Class 1-2	Other Tools to make it happen	Total Score
Pirinoa	Score: 3.0	Score: 4	Score: 4	Score: 3	Score: 5	Score: 1	Score: 3.5	Score: 3.5	Score: 4	Score: 5	Score: 4	Score:	40
PILITIOA	Reasons Gives choice but not much capacity. Option for key worker housing, tourism.	Reasons Can Remediate	Reasons Is a H ₂ O supply WTP & tank supply	Reasons On-site septic. 1000m² required. Disposal fields. Potential compliance issues	Reasons	Reasons No PT buses. School bus. Potential ride-share. No walk/ cycle	Reasons School Comm hall Dairy Café Service Stn Marae Recycling Plant	Reasons Some initial indications they are supportive; also seek to develop their own land	Reasons	Reasons No liquefaction. No flooding	Reasons Class 3	Reasons Market conditions to contribute to housing affordability, Key worker choice	
Kahutara	Score: 2.5	Score: 4	Score: 3	Score: 3	Score: 4	Score: 1	Score: 1	Score: 3	Score: 3	Score: 2	Score: 4	Score:	30.5
Kahutara	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	
	Overflows Featherston /Martinborough	No contamination	No water supply- Tank UV systems \$3000/ tank	As above	Higher H ₂ O table in winter time water logged	School bus	School & hall. No shops			High liquefaction. Flooding just out of town	Class 3&6	As above	
Tauherenikau	Score: 2.5 (Popn stats show 247	Score: 3	Score: 3	Score: 3	Score: 5	Score: 3	Score: 2.5	Score: 3	Score: 3	Score: 5	Score: 2	Score:	35
Approx. 4km	persons here by	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	
form Featherston and 8km from Greytown	2051) Reasons: Provides choice but limited capacity; can be in part served by Featherston and Greytown	Dump. Potentially lot more risky	As above	As above	Good drainage	Regular bus for school. Bus goes thru. Short drive to Featherston train stn	Closer to Featherston Racecourse Dining/ Weddings. Campervans			No hazards	Class 2 soils		

TABLE 4: HAMLETS													
	Score: 2.5	Score: 3	Score: 2	Score: 1	Score: 1	Score: 0	Score: 1.5	Score: 3	Score: 3	Score: 1	Score: 5		23
Ngawi	Reasons Choice but limited capacity; coastal sea level rise issues	Reasons Some contamination	Reasons Dryer climate. Salt build up	Reasons No waste. Reticulation. No absorption discharge to coast	Reasons Water chopping land (soil)	Reasons No school bus None	Reasons Hall-Fire Stn, Restaurant Golf Course, Camp ground, Summer food vans	Reasons	Reasons	Reasons Tsunami zone flood. Sea level rise	Reasons Sand	Reasons Climate change Tsunami Coastal erosion Access Sandy	
Lake Ferry	Score: 2.5 Reasons Limited capacity; coastal hazards	Reasons Small amount contamination	Reasons Near sea. Tank lower rail fast	Score: 5 Reasons	Score: 2 Reasons Some drainage	Score: 1 Reasons School bus	Reasons Pub. Fire Stn. Camp Ground. Park	Score: 3 Reasons	Score: 3 Reasons	Reasons :As above Erosion	Class 3 /small amount Class 2	Reasons As above	28.5

Concluding Comments and Gaps

The above high level assessment of residential growth options can help to inform and shape Step 1 of the draft South Wairarapa Spatial Plan (map and diagram) that is to be integrated and consulted on along with the draft 2021-31 Long Term Plan(LTP). This will help to show the relationship of the spatial plan (setting the strategic direction for the District) with one of the key 10 year implementation plans and budget being the LTP. The District Plan, collaboration and partnerships are other key tools to enable the implementation of the Spatial Plan.

It is noted that this residential growth assessment does not include reference to growth in employment opportunities, nor assess areas for future business growth and social services such as health facilities and schools. In this regard, the relationship with the wider Wairarapa is critical noting that the towns of Carterton and Masterton also provide employment opportunities and wider services as does Wellington City. Transport links are vital between and amongst all these centres and Wellington City. The draft South Wairarapa Spatial Plan can and should denote the interconnectedness of these places and the importance of transport links especially public transport. The current residential growth options assessment is Step 1 of competing a comprehensive South Wairarapa Spatial Plan.

As a note, agriculture accounted for 23% of the district's employment in 2019 and the draft Spatial Plan acknowledges the importance of the rural areas for food production by avoiding sporadic subdivision throughout these areas. Accommodation and food services (11% of the district's employment) and Construction (10% of the district's employment) were the second largest industries in the district in 2019. Manufacturing, professional, scientific, tech services are expected to become more prominent, however agriculture, accommodation and food services are projected to remain the largest industries by 2051.

As the Covid and post Covid 19 experience has shown, working more from home for some may become "a new normal" meaning the nature of homes and commercial premises may change - e.g. space for home offices in houses; different arrangements for commercial office space. Town amenity will be looked for in the towns to serve professionals and technical services.

Additionally, non -metropolitan areas can be places of innovation and alternative lifestyles that are in themselves seen as a resource. (See Leick and Lang, Rethinking non-core regions; planning strategies and practices beyond growth" Dec 2017). Research has also shown that in the United Kingdom, the area around a home that children freely wander has shrunk by a stunning 90% since the 1970s. There may be a human cost to being alienated from nature which includes "diminished use of the senses, attention difficulties, and higher rates of physical and emotional illnesses." Dr Karina Linnell who led a study on the impacts of urbanisation on attention spans and level of contentment comparing urban and remote areas has suggested "that overcrowded urban settings demand altered states of mind... [and has even proposed] "that employers, were they looking to design the best workforces, consider stationing employees who need to concentrate outside the city." See Harris, Michael, 'Solitude – In Pursuit of a Singular Life in a Crowded World', 2017, p136, p 143.

Finally, a spatial plan is more than just the identification of where people may live, work and recreate, it should also be a plan identifying the type of society or community that is sought. In this regard, the council may wish to consider matters such as the NZ Index of Deprivation as one means of assisting it to determine priorities, programmes and projects to improve the well-being of all groups in the community. The NZ Deprivation Index

is determined by considering the following criteria and can identify needs within a community on a spatial basis:

NZDEP 2018
People with no access to the Internet at home
People aged 18-64 receiving a means tested benefit
People living in equivalised households with income below an income threshold
People aged 18-64 who are unemployed
People aged 18-64 without any qualifications
People not living in their own home
People aged under 65 living in a single parent family
People living in equivalised households below a bedroom occupancy threshold
People living in dwellings that are always damp and/or always have mould greater than A4 size

In terms of each of the 3 towns within South Wairarapa the following NZ Dep data is recorded noting 1 is the lowest deprivation index and 10 the highest:

SOUTH WAIRARAPA TOWNS (SA2)	NZ DEP 2018
Martinborough	Decile 5
Featherston	Decile 7
Greytown	Decile 3

The integrated Spatial Plan and Long Term Plan can take account of such data to target activities to improve overall community and economic wellbeing across the district.

Assumptions

Assumption 1: Population Growth Projections

Different population data sets have been used to assist and guide the development of growth options for the district. In mid-2020, a data set from Infometrics was provided to council. This included district wide population projections as follows:

	2019	2051
Population	11,100	13,169
Households	4,740	6,232

The above district wide data has since been updated by Infometrics in November 2020 and the District wide projections are as follows for the medium growth scenario:

	2019	2051
Population	11,100	14,476
Households	4,740	6,371

The updated district wide data suggests and additional 307 persons in the district over a 30-year horizon and an additional 139 households. These updated population projections suggest more not less demand for housing. At the same time it is noted that the projections indicate a reduction in household size from 2.34 persons/hh in 2019 to 2.27 persons/hh in 2051. The updated population projections have not been allocated across the 3 towns, however an assumption has been made that all 3 towns will grow. The earlier population data that describes the population projections for each town is detailed below (source: Infometrics medium projection) and has been used as a guideline to inform the growth options assessed.

STATISTICAL AREA 2	2019	2051	CHANGE 2019-2051
Greytown	2,595	3,674	1,079
Featherston	2,615	3,489	874
Martinborough	1,864	2,511	647

It is noted that population projections are not predictions. Previous planning reports to Council, notably The Kahu Consultancy Report on the Feasibility of Rezoning Martinborough South as Residential (Nov 2018) identifies that forecasting is more accurate over shorter periods (e.g. 10 years); that based on a range of data an average of 17 dwellings/year is likely in Martinborough through to 2043 and that 400 dwellings should be anticipated to 2043.

The above data from Infometrics would suggest a lower number of dwellings/year based on (647perons \div 30yrs = 21.6 person/year; and 21.6 \div 2.2 (no of persons per h/h) = 9.8.

Similarly, in Greytown based on the above Infometric population data, around 16-17 dwellings/yr would be required. Planning staff have identified that the current demand based on building consent data is showing higher demand for dwellings in Greytown.

All three towns are currently affected by the wider Wellington market, and Featherston has also been identified as a Growth Node in the GWRC Growth Framework.

The population data is being further interrogated however is unlikely to be available until March 2021.

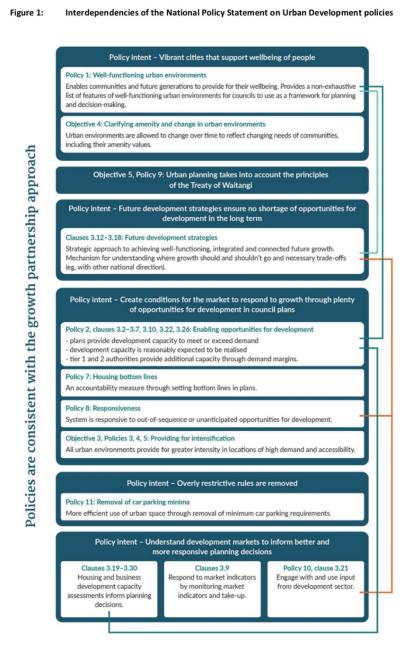
For the purpose of the growth options assessments the current population data has been used as a guideline.

Assumption 2: Supply to Meet Demand

The provisions of the National Policy Statement -Urban Development (NPS-UD) effective August 2020
were considered, however scores were not made against any of the specific objectives and policies of the

NPS-UD. Figure 1 below is an extract from the NPS-UD that was reflected on. It is noted that the NPS-UD applies only to Tier 1, 2 and 3 local authorities with urban environments as per the definition below.

"it is important that regional policy statements (RPSs) and regional and district plans provide adequate opportunity for land development for business and housing to meet community needs". The NPS-UD applies to all urban environments,² Defined in the NPS-UD as any area of land (regardless of size, and irrespective of local authority or statistical boundaries) that: (a) is, or is intended to be, predominantly urban in character; and (b) is, or is intended to be, part of a housing and labour market of at least 10,000 people.



- 2. Will give effect the Wellington Regional Policy Statement and align to the draft GWRC Regional Framework (future growth concentrated in and around urban areas; is integrated).
- 3. A guideline for development uptake is as follows: If 40 hectares of Greenfield Land is zoned with an average site size of 500m2; and road reserves are approximately 17m (site boundary to site boundary), there is likely to be a 60% developable area enabling around a low 400 lots (e.g. if Martinborough Growth South Area of 48.8ha was rezoned Residential as per the current District Plan Residential Rules it may based on area and site size only potentially enable around 585 lots (albeit this is likely to be less if other factors such as existing patterns of development are taken into account); or much lower as per earlier report (see Kaha Consultancy Ltd 23 November 2018 page 3) if the average lot size was 2000m2- enabling between 100-240 dwellings-the range varies depending on assumptions e.g. impact of existing patterns of development so use guideline of around 200 lots for 40 hectares
- 4. That there may be opportunity to provide for smaller lots immediately adjoining the existing commercial/retail areas of each town.
- 5. The need for housing choice (e.g. for young people, elderly, key workers) and access to affordable housing has been raised through consultation and stakeholder engagement.

Assumption 3: Character and Amenity are Important

(Note: SWDC is a signatory to the NZ Urban Design Protocol – from August 2010- see chart below from the NZ Urban Design Protocol – the seven C's)

- 1. Must know where town and country start and finish.
- 2. Understand the essential elements of character so that new development is empathetic to what is valued by community- that is change is okay as long as it is done well.
- 3. Consider undertaking master planning and collaborative development and design processes in greenfield locations to enable both landowner, community, iwi and stakeholder inputs.

DESIGN QUALITIES – THE SEVEN C'S THE PROTOCOL IDENTIFIES SEVEN ESSENTIAL DESIGN QUALITIES THAT TOGETHER CREATE QUALITY URBAN DESIGN				
Context	Seeing that buildings, places and spaces are part of the whole town or city			
Character	Reflecting and enhancing the distinctive character, heritage and identity of our urban environment.			
Choice	Ensuring diversity and choice for people			
Connections	Enhancing how different networks link together for people			
Creativity	Encouraging innovative and imaginative solutions			
Custodianship	Ensuring design is environmentally sustainable, safe and healthy			
Collaboration	Communicating and sharing knowledge across sectors, professions and with communities			

Assumption 4: Other Matters

- The Rural (Special) Zone- Ferry Road North -Martinborough is generally excluded from detailed analysis in the growth options as it is not compromised by subdivision and can be looked at when the Rural (Special) Zone is reviewed. Requests have been made through consultation with winegrowers for more opportunities to enable key worker housing in the Rural Special Zone.
- 2. The Future Development Area -Greytown becomes operative (post appeals) with potential 200-300 lots.
- 3. Sustainability principles are built into the District Plan e.g. requirement for all new development to have tanks for greywater.
- 4. Some criteria may be weighted higher than others as there are, for example, statutory requirements to manage significant risks from natural hazards, to protect historic heritage, provide for the relationship of Māori with their taonga. However, for the purpose of this high level assessment the criteria were not explicitly weighted.
- 5. Mitigation measures can be recorded to assist the scoring process and be listed in the reasons for the score; e.g. reduce water consumption and leakage across town.
- 6. Community views are taken from what is known from recent engagement processes (e.g. LTP/SP stakeholders, online survey -what's on top of your mind?).
- 7. Iwi views are still in the process of being obtained- any known matters affecting options (e.g. waahi tapu) can be highlighted and then review.

The Methodology

- 1. An independently facilitated assessment process by Ree Anderson Consulting Ltd that:
 - » Takes account of behavioural strategy- allowing information and facts to be shared and debate stimulated (enable different viewpoints to be expressed, discuss uncertainties).
 - » Uses collective intelligence with multi-disciplinary staff in attendance.
- 2. Tests, with the group, at the beginning any "show stoppers"; reasons why any areas are "no-goes".
- 3. Individual scores are considered then discussed and challenged so that a shared view (score) is obtained rather than adding and averaging the scores.
- 4. Gaps or parking lot issues are recorded for subsequent follow-up.



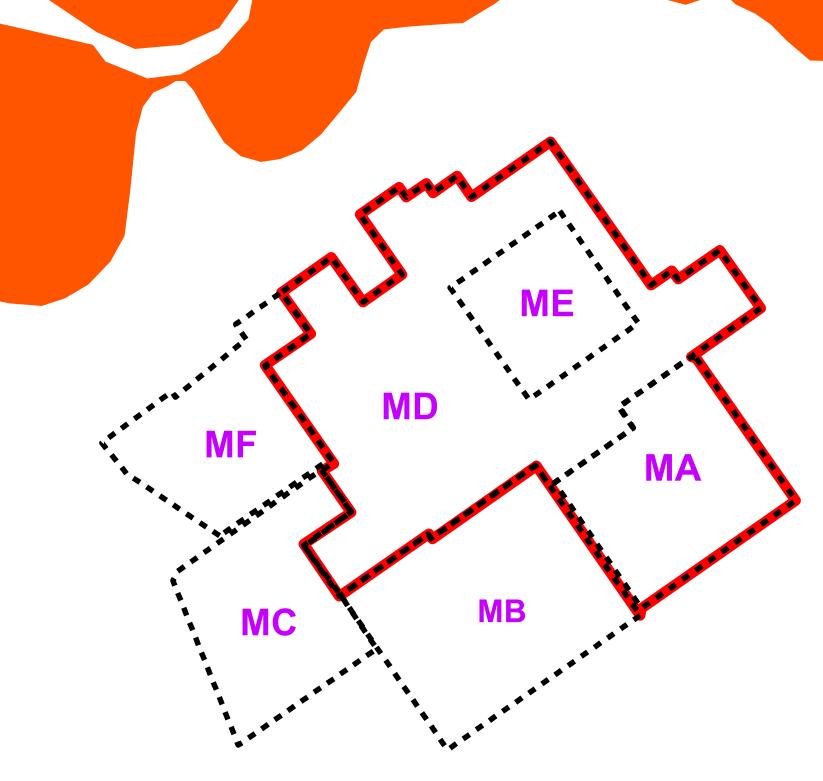
Supporting Information to the

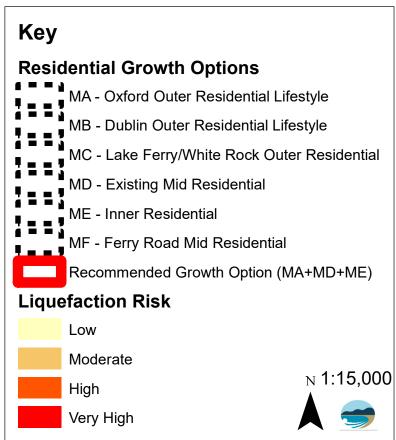
High Level Residential Growth Options Matrix Analysis – Informing the Spatial Plan Document

Date of Approval	xx June 2021
Next Review	XX

Martinborough Potential Residential Growth Options and Flood Hazard ME MD MF MA MB MC Key **Residential Growth Options** MA - Oxford Outer Residential Lifestyle MB - Dublin Outer Residential Lifestyle MC - Lake Ferry/White Rock Outer Residential **Recommended Growth Option** MD - Existing Mid Residential ME - Inner Residential Recommended Growth Option (MA+MD+ME) MF - Ferry Road Mid Residential Recommended Growth Option (MA+MD+ME) N 1:15,000 Flood Hazard Area

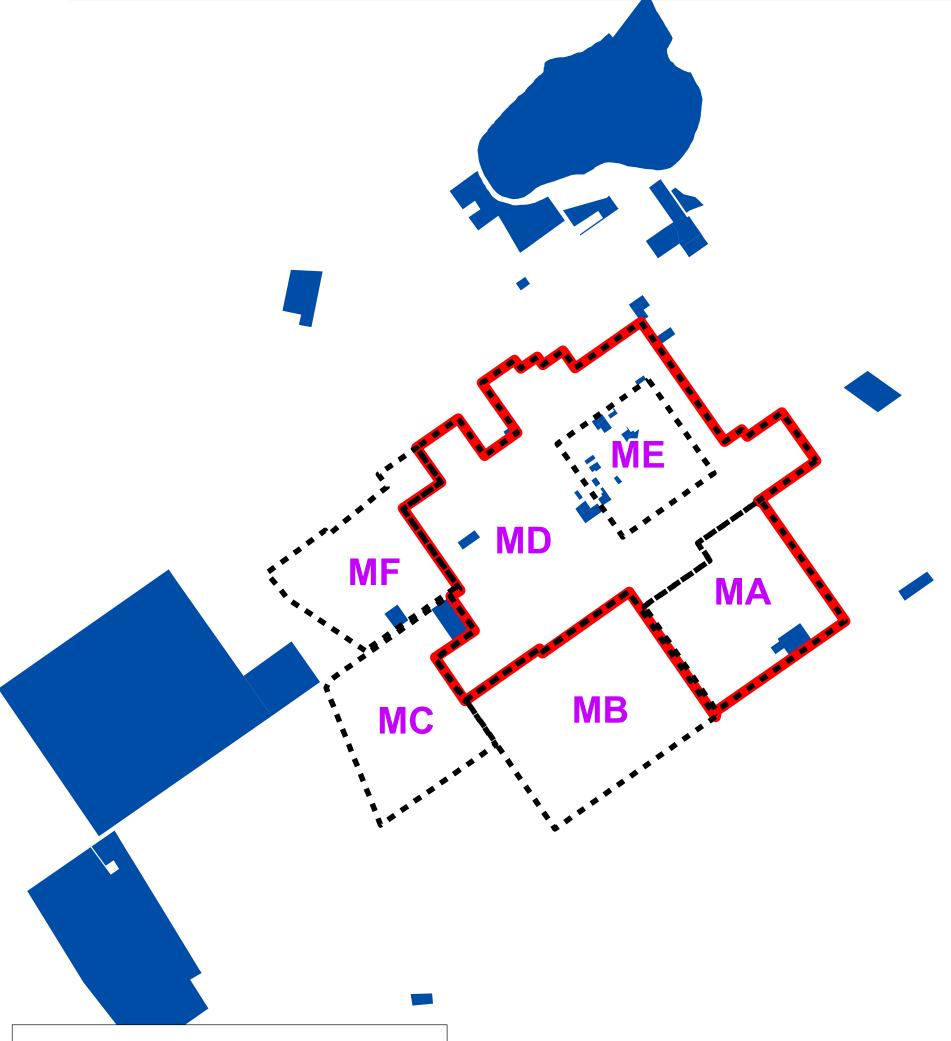
Martinborough Potential Residential Growth Options and Liquefaction Risk







Martinborough Potential Residential Growth Options and SLUR





Residential Growth Options

- MA Oxford Outer Residential Lifestyle
- MB Dublin Outer Residential Lifestyle
- MC Lake Ferry/White Rock Outer Residential
- MD Existing Mid Residential
- ME Inner Residential
- MF Ferry Road Mid Residential
- Recommended Growth Option (MA+MD+ME)
 - SLUR Selected Land Use Register

Recommended Growth Option

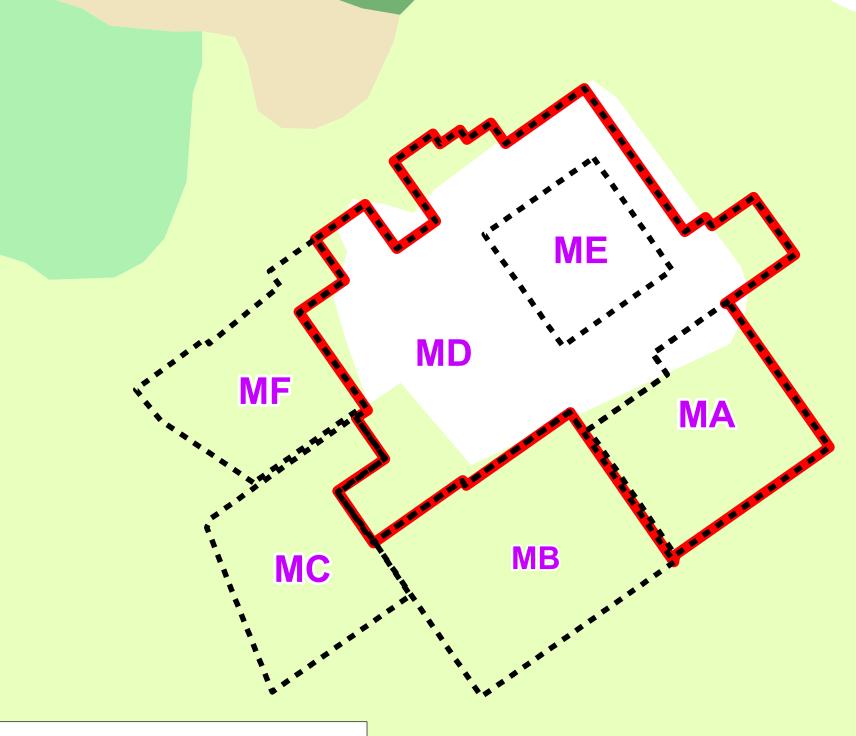


Recommended Growth Option (MA+MD+ME)

N 1:18,000



Martinborough Potential Residential Growth Options and Soil Class



Key

Residential Growth Options

- MA Oxford Outer Residential Lifestyle
- MB Dublin Outer Residential Lifestyle
- MC Lake Ferry/White Rock Outer Residential
- MD Existing Mid Residential
- ME Inner Residential
- MF Ferry Road Mid Residential
- Recommended Growth Option (MA+MD+ME)

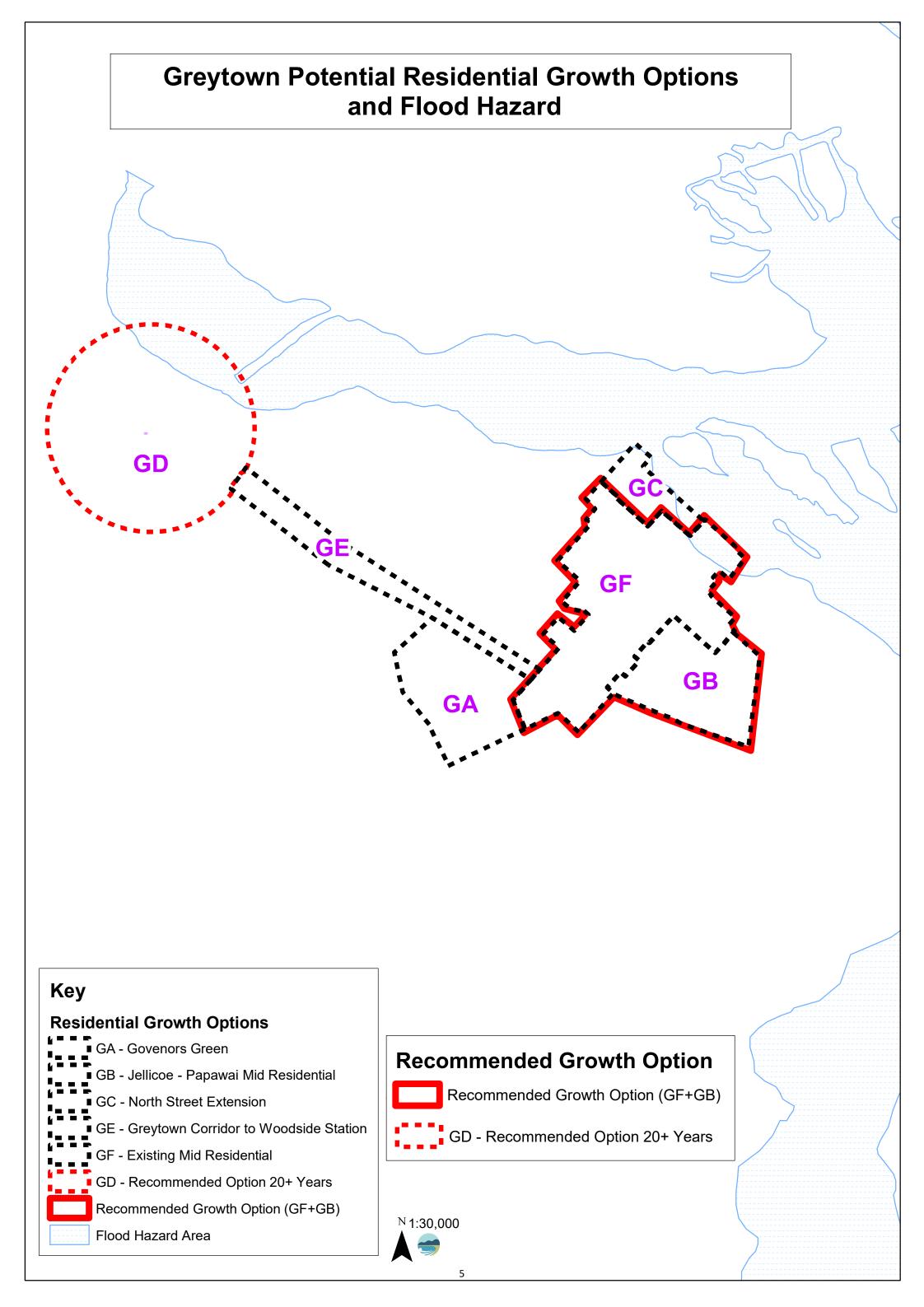
Soil Class

- Class 1 Highly Versatile
- Class 2 Versatile
 - Class 3 Moderately Versatile
 - Class 4 Occasionally Pastoral
 - Class 5 Less Versatile
 - Class 6 Less Versatile

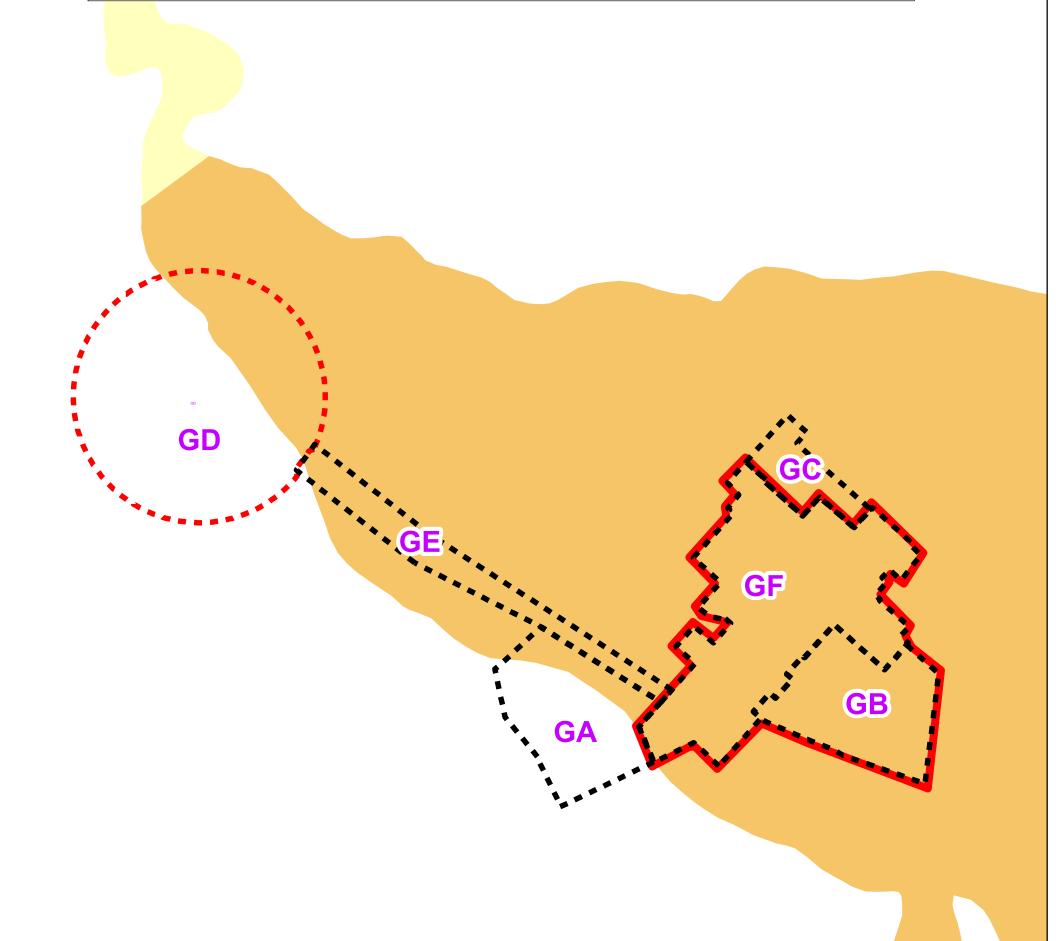
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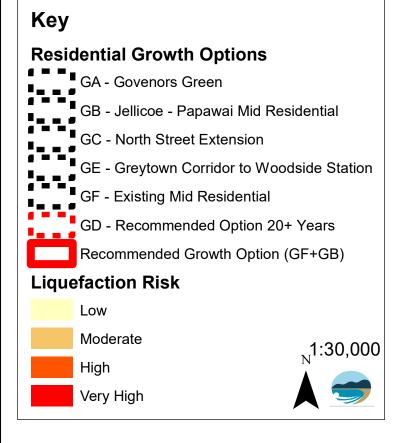
Recommended Growth Option

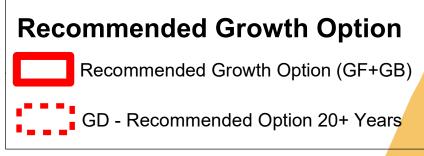
Recommended Growth Option (MA+MD+ME)



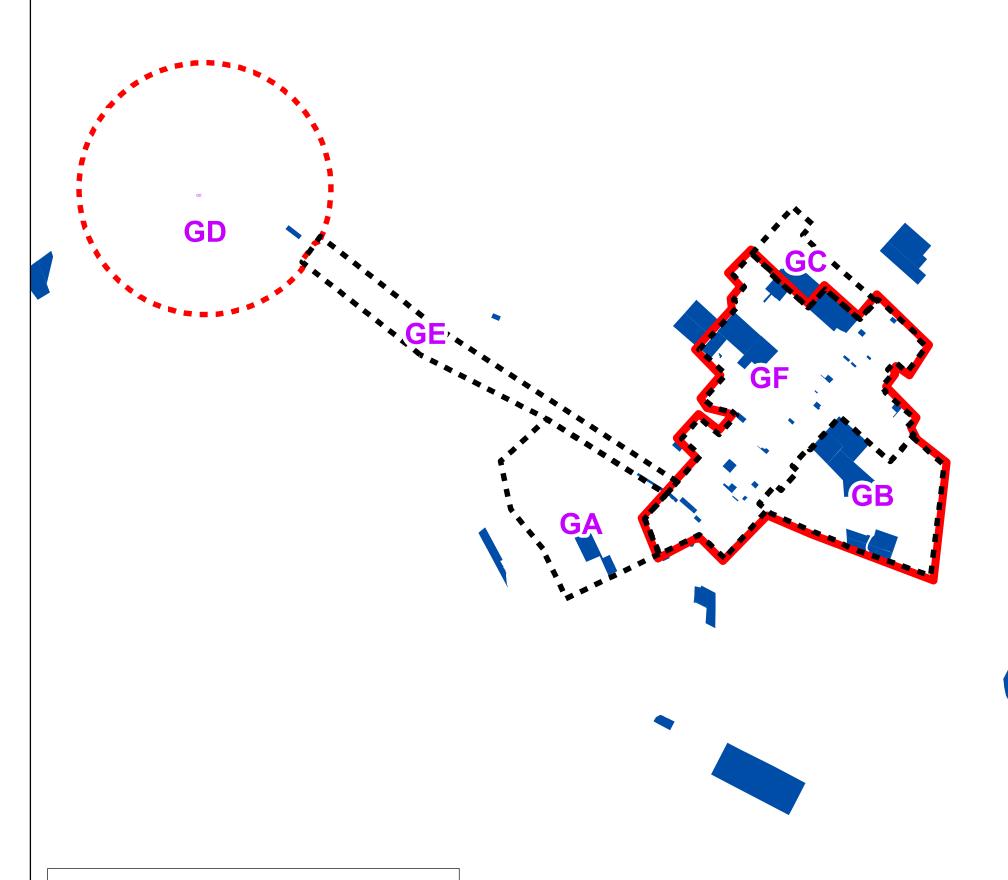
Greytown Potential Residential Growth Options and Liquefaction Risk







Greytown Potential Residential Growth Options and SLUR

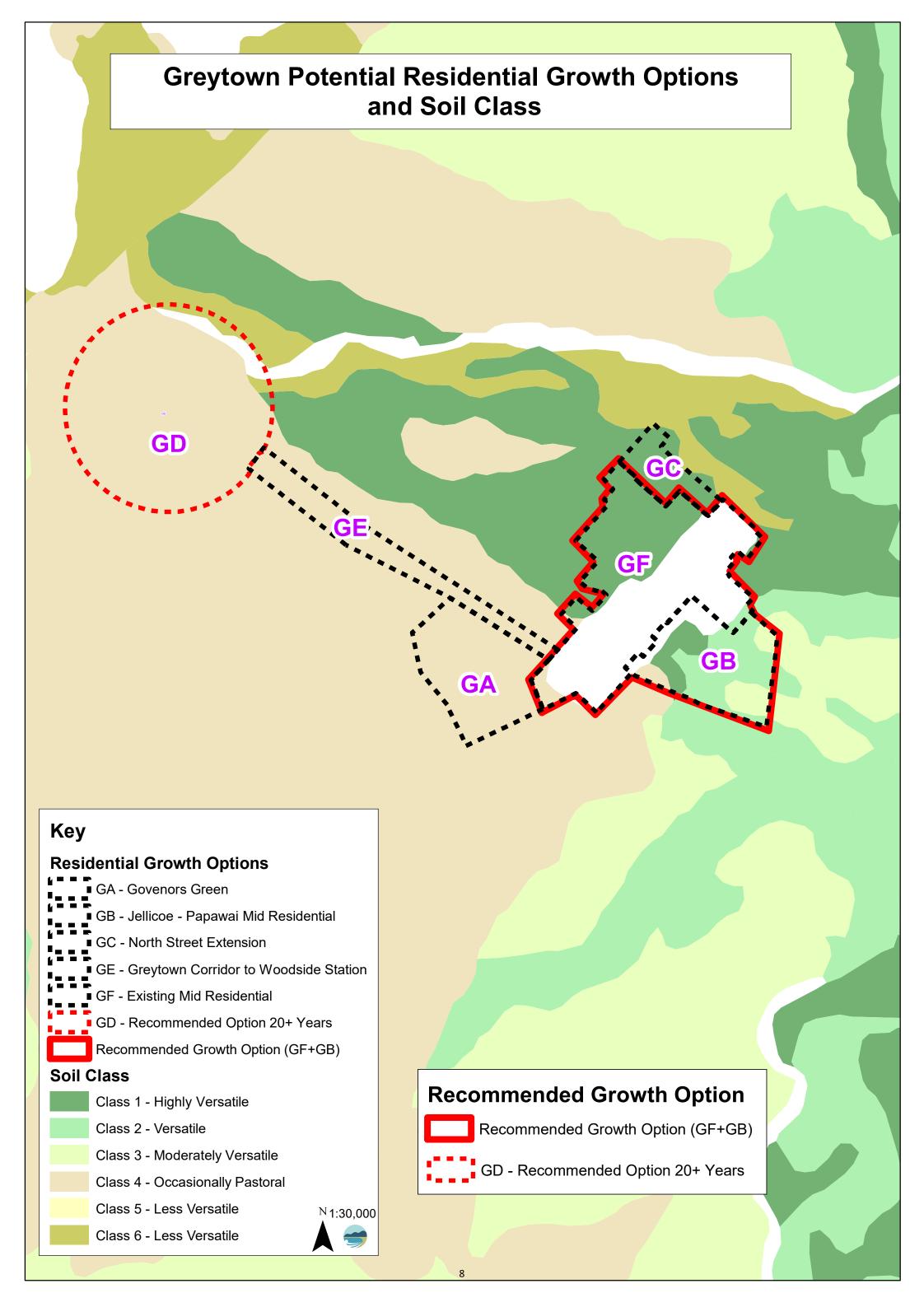


Residential Growth Options GA - Govenors Green GB - Jellicoe - Papawai Mid Residential GC - North Street Extension GE - Greytown Corridor to Woodside Station GF - Existing Mid Residential GD - Recommended Option 20+ Years Recommended Growth Option (GF+GB) SLUR - Selected Land Use Register

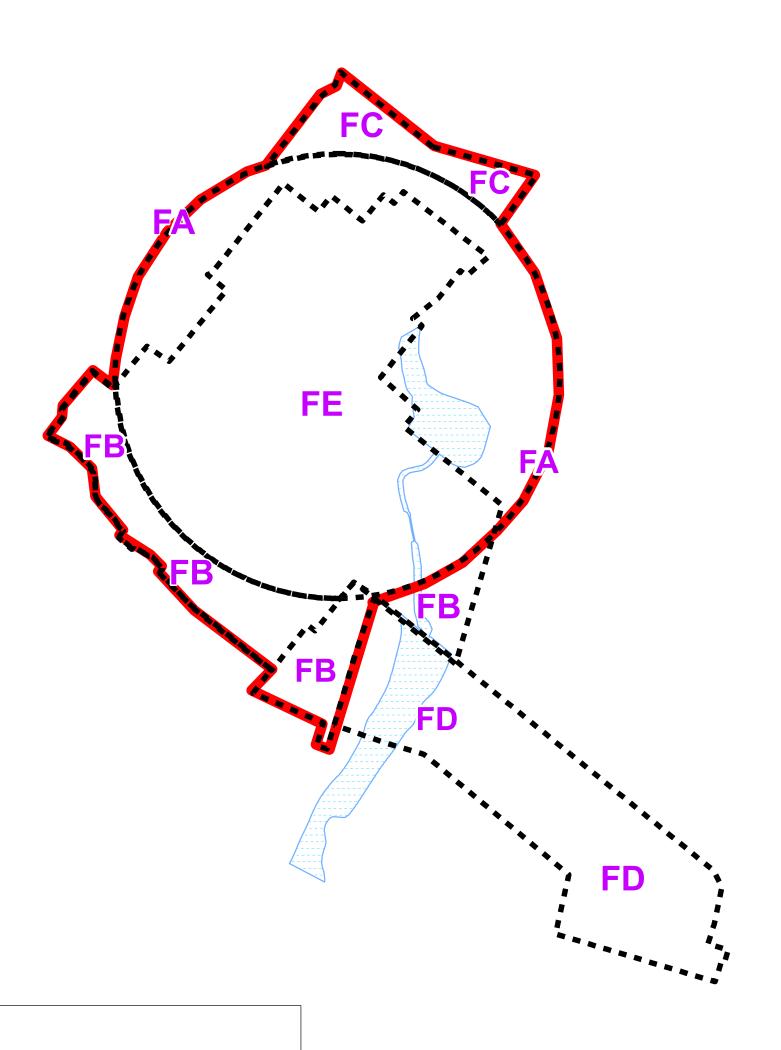
Recommended Growth Option Recommended Growth Option (GF+GB) GD - Recommended Option 20+ Years

N 1:30,000





Featherston Potential Residential Growth Options and Flood Hazard





Residential Growth Options

FA - Featherston Growth Node

FB - Featherston Outer Residential (South)

FC - Featherston Outer Residential Lifestyle (North)

FD - Featherston South

FE - Status Quo - Existing Zoning

Recommended Growth Option (FA+FB+FC)

Flood Hazard Area

Recommended Growth Option

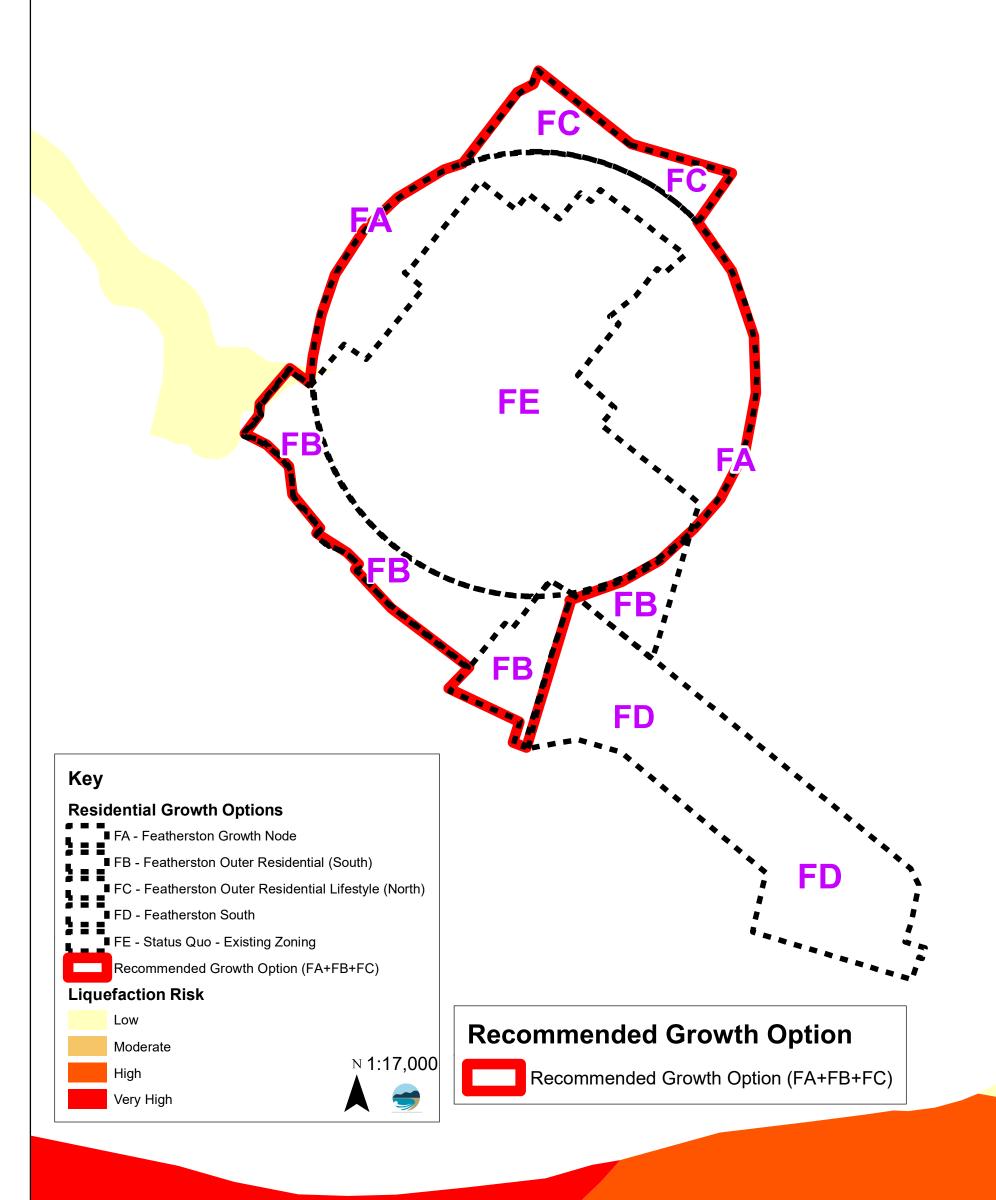


Recommended Growth Option (FA+FB+FC)

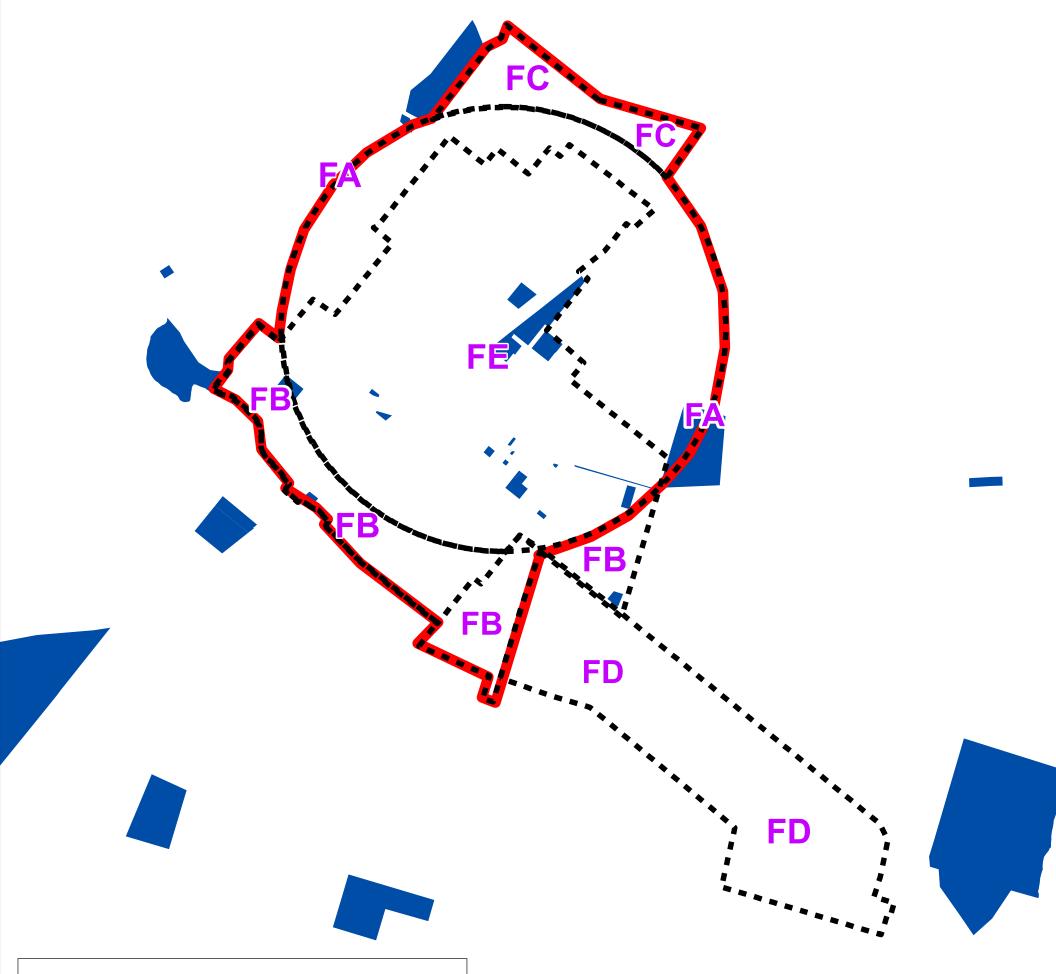
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Featherston Potential Residential Growth Options and Liquefaction Risk



Featherston Potential Residential Growth Options and SLUR



Key

Residential Growth Options

FA - Featherston Growth Node

FB - Featherston Outer Residential (South)

FC - Featherston Outer Residential Lifestyle (North)

FD - Featherston South

FE - Status Quo - Existing Zoning

Recommended Growth Option (FA+FB+FC)

SLUR - Selected Land Use Register

Recommended Growth Option



Recommended Growth Option (FA+FB+FC)

_N1:17,000



Featherston Potential Residential Growth Options and Soil Class

