

From: Suzanne Rushmere
Sent: Thursday, 31 August 2023 1:01 pm
To: Dave Smith; Jared White
Cc: Emily Thomson; Patrick Hanaray
Subject: FW: Traffic Modelling
Attachments: Traffic Modelling Phasing and Numbers.xlsx; UHCC Greenfield development areas V1.jpg

Hi Both

Please see major schemes in LTP below.

Also attached is the “phasing and numbers” spreadsheet for business and housing, this is based on demand from the HBA.

The spreadsheet should hopefully be largely self-explanatory.

The sheets with the green tabs have the data for the model in them (others are just background data).

For housing scenarios 1 to 3 the demand for each SA2 is broken down year on year and have packaged them up into model years (red text).

The Southern Growth area is split over two SA2 areas (Silverstream and Pinehaven).

Also attached is the mapped locations of the greenfield sites. Hopefully this is helpful.

The scenarios have dropped to 3 so hopefully this will help with timeframes etc.

Business scenario can probably go in all housing scenario model runs. I have also included the employee ratios from the HBA in the business scenario tab so you can convert floorspace into number of employees.

The demand for education is included in the business scenario spreadsheet but not allocated to business areas for obvious reasons. It is not anticipated that we will get new schools so I would suggest just spreading the demand across the existing sites.

Please shout out if you need any clarification on anything.

Suze

	Location (SA2 Suburb)	Type of projects (eg. below)	
UHCC	All Ebentown/Upper Hutt	All	<u>Major projects listed on page 24 Of 296 https://www.uppe2031.web.pdf</u>
UHCC	Central	Wastewater	Waste Water Joint Venture (Page 22 and 132 LTP)
UHCC	Heretaunga	Roading	Silverstream Bridge Replacement (Page 22 and 137 LTP)
UHCC	Wallaceville	Roading	Fergusson/Ward/Whakatiki intersection (Page 22 and 136 LTP)
UHCC	All	Roading	Rural Road High Priority Safety Projects (Page 22 and 142 LTP)
UHCC	All	Roading	Active Mode Transport Programme (Page 22 and 143 LTP)
UHCC	Upper Hutt Central	Roading	Fergusson/Gibbons/Main Street Intersection (Page 22 and 144 LTP)
UHCC	Totara Park	Roading	Widen Totara Park Bridge Page (22 and 144 LTP)

UHCC	Upper Hutt Central	Roading	City Centre Paving Revitalisation (Page 22 and 130 LTP)
UHCC	Upper Hutt Central	Community facilities	H2O Extreme Upgrade (Page 22 and 147 LTP)
UHCC	Upper Hutt Central	Community facilities	Civic Centre Upgrade (Page 22 and 146 LTP)
UHCC	Upper Hutt Central	Community facilities	Maidstone Community Sports Hub (Page 22 and 148 LTP)
UHCC	Upper Hutt Central	Community facilities	New Community Hub (Page 22 and 151 LTP)
UHCC	Birchville-Brown Owl	Community facilities	Akatarawa Cemetery Redevelopment (Page 22 and 149 LTP)
UHCC	Upper Hutt Central	Community facilities	Maidstone Artificial Turf Replacement (page 22 and 131 LTP)
UHCC	Pinehaven	Stormwater	Pinehaven Stream Capacity Upgrade (Page 22 and 145 LTP)
UHCC	All	Three Waters	Renewals Programme (Page 22 and 129 LTP)
UHCC	All	Parks	Renewals Programme (Page 22 and 129 LTP)
UHCC	All	Property	Renewals Programme (Page 22 and 129 LTP)
UHCC	All	Roading	Renewals Programme (Page 22 and 129 LTP)
UHCC	Trientham South	Transport	\$12.4m IAF fund to fund transport infrastructure and support

Scenario 1	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	Total	Demand	
Phasing																																0	37
Akatarawa (0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Birchville-Brown Owl (0.5)	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	210	345	
Brentwood	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	450	391	
Clouston Park	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	450	379	
Ebdentown	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	450	429	
Elderslea	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	450	369	
Heretaunga	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	450	439	
Mangaroa (0)	0	40	20	20	20	20	20	20	20	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220	181	
Maoribank (0.5)	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	210	362	
Pinehaven (0.5)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	240	626	
Poets Block	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	450	424	
Riverstone Terraces (0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	325	0
Silverstream	15	15	15	15	15	15	65	95	95	95	95	95	95	85	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	1050	353	
Te Marua (0.5)	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	210	326	
Totara Park (0)	0	0	0	0	0	50	50	50	50	50	50	50	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	373	
Trentham North (0.5)	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	210	369	
Trentham South	15	15	15	15	187	187	187	187	187	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	1310	582	
Upper Hutt Central	15	15	15	15	16	16	16	16	65	65	65	65	65	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	721	134	
Wallaceville	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	450	366		

Notes	2033	2043	2053	Total	Standalone %	Attached %
	0	0	0	0	91	9
	70	70	70	210	85	15
	150	150	150	450	93	7
	150	150	150	450	88	12
	150	150	150	450	80	20
	150	150	150	450	87	13
	150	150	150	450	88	12
Includes Gabites (220) 40 Urban Lots Rest Small Scale Rural	200	20	0	220	98	2
	70	70	70	210	84	16
	80	80	80	240	35	65
	150	150	150	450	97	3
	0	0	0	0	51	49
Includes St Pats (600)	440	460	150	1050	92	8
	70	70	70	210	54	46
Includes Canon Point (400)	250	150	0	400	95	5
	70	70	70	210	60	40
Includes Trentham PDA (860)	1010	150	150	1310	45	55
Includes Kingsley Heights (250)	254	307	160	721	97	3
	150	150	150	450	71	29

Greenfield Phasing	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	
Trentham PDA	860				172	172	172	172	172																						
St Patricks	600					50	80	80	80	80	80	80	80	70																	
Kingsley Heights	250								50	50	50	50	50																		
Canon Point	400					50	50	50	50	50	50	50	50																		
Gabites	220	40	20	20	20	20	20	20	20	20	20	20																			
Southern Growth Areas	1500					50	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	60	40	30	30	30	
Gillespies	1000									50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	

Intensification = Total demand (7931) less greenfields 5601

This colour = No infill

This colour = Half infill of other SA2's

This colour = Greenfields in scenario

This colour = Greenfield out of scenario

This colour = Demand outstrips supply

Scenario 2

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	Total	Demand		
Phasing																																		
Akatarawa (0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Birchville-Brown Owl (0.5)	4	4	4	4	4	4	4	4	4	4	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	1120	345	
Brentwood	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	270	391
Clouston Park	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	270	379
Ebdentown	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	270	429
Elderslea	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	270	369
Heretaunga	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	270	439
Mangaroa (0)	0	40	20	20	20	20	20	20	20	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220	181	
Maoribank (0.5)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	120	362	
Pinehaven (0.5)	4	4	4	4	4	4	29	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	34	24	19	19	19	870	626	
Poets Block	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	270	424
Riverstone Terraces (0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	325
Silverstream	8	8	8	8	8	8	79	119	119	119	119	119	119	109	39	39	39	39	39	39	39	39	39	39	39	39	34	24	19	19	19	1494	353	
Te Marua (0.5)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	120	326	
Totara Park (0)	0	0	0	0	0	50	50	50	50	50	50	50	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	373	
Trentham North (0.5)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	120	369	
Trentham South	8	8	8	8	180	180	180	180	180	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	1100	582
Upper Hutt Central	8	8	8	8	8	8	8	8	8	58	58	58	58	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	490	134
Wallaceville	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	257	366	

Notes	2033	2043	2053	Total	Standalone %	Attached %
	0	0	0	0	91	9
Includes Gillespies (1000)	40	540	540	1120	85	15
	90	90	90	270	93	7
	90	90	90	270	88	12
	90	90	90	270	80	20
	90	90	90	270	87	13
	90	90	90	270	88	12
Includes Gabites (220)	200	20	0	220	98	2
	40	40	40	120	84	16
Includes Half of Southern Growth Area (750)	170	390	310	870	35	65
	90	90	90	270	97	3
	0	0	0	0	51	49
Includes St Pats (600) and half of Southern Growth (750)	484	700	310	1494	92	8
	40	40	40	120	54	46
	250	150	0	400	95	5
Includes Canon Point (400)	40	40	40	120	60	40
	940	80	80	1100	45	55
Includes Trentham PDA (860)	180	230	80	490	97	3
Includes Kingsley Heights (250)	90	87	80	257	71	29

Greenfield Phasing	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053		
Trentham PDA	860				172	172	172	172	172																							
St Patricks	600						50	80	80	80	80	80	80	70																		
Kingsley Heights	250								50	50	50	50	50																			
Canon Point	400						50	50	50	50	50	50	50																			
Gabites	220	40	20	20	20	20	20	20	20	20	20																					
Southern Growth Area	1500							50	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	60	40	30	30	30		
Gillespies	1000										50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	

Intensification = Total demand (7931) less greenfields

3101

This colour = No infill

This colour = Half infill of other SA2's

This colour = Greenfields in scenario

This colour = Greenfield out of scenario

This colour = Demand outstrips supply

Half of Southern Growth as split over two zones							25	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	30	20	15	15	15
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Scenario 3	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	Total	Demand			
Phasing																																			
Akatarawa (0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Birchville-Brown Owl (0.5)	4	4	4	4	4	4	4	4	4	4	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	345	
Brentwood	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	391	
Clouston Park	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	379	
Ebentown	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	429	
Elderslea	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	369	
Heretaunga	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	439	
Mangaroa (0)	0	40	20	20	20	20	20	20	20	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	181	
Maoribank (0.5)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	362	
Pinehaven (0.5)	4	4	29	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	34	24	19	19	19	4	4	4	4	4	626	
Poets Block	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	424	
Riverstone Terraces (0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	325	
Silverstream	8	8	79	119	119	119	119	119	119	109	39	39	39	39	39	39	39	39	39	39	39	39	34	24	19	19	19	8	8	8	8	8	8	1494	
Te Marua (0.5)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	326	
Totara Park (0)	0	0	0	0	0	50	50	50	50	50	50	50	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	373	
Trentham North (0.5)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	369	
Trentham South	8	8	8	8	180	180	180	180	180	180	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	582
Upper Hutt Central	8	8	8	8	8	8	8	8	8	58	58	58	58	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	134	
Wallaceville	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	366	

Notes	2033	2043	2053	Total	Standalone %	Attatched %
	0	0	0	0	91	9
Includes Gillespies (1000)	40	540	540	1120	85	15
	90	90	90	270	93	7
	90	90	90	270	88	12
	90	90	90	270	80	20
	90	90	90	270	87	13
	90	90	90	270	88	12
Includes Gabites (220)	200	20	0	220	98	2
	40	40	40	120	84	16
Includes Half of Southern Growth Area (750)	310	390	170	870	35	65
	90	90	90	270	97	3
Includes St Pats (600)	0	0	0	0	51	49
Includes St Pats (600) and half of Southern Growth (750)	918	390	186	1494	92	8
	40	40	40	120	54	46
Includes Canon Point (400)	250	150	0	400	95	5
	40	40	40	120	60	40
Includes Trentham PDA (860)	940	80	80	1100	45	55
Includes Kingsley Heights (250)	180	230	80	490	97	3
	90	87	80	257	71	29

Greenfield Phasing	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053			
Trentham PDA	860				172	172	172	172	172																								
St Patricks	600		50	80	80	80	80	80	80	70																							
Kingsley Heights	250									50	50	50	50	50																			
Canon Point	400					50	50	50	50	50	50	50	50																				
Gabites	220	40	20	20	20	20	20	20	20	20	20																						
Southern Growth Area	1500		50	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	60	40	30	30	30							
Gillespies	1000										50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	

Intensification = Total demand (7931) less greenfields

3101

- This colour = No infill
- This colour = Half infill of other SA2's
- This colour = Greenfields in scenario
- This colour = Greenfield out of scenario
- This colour = Demand outstrips supply

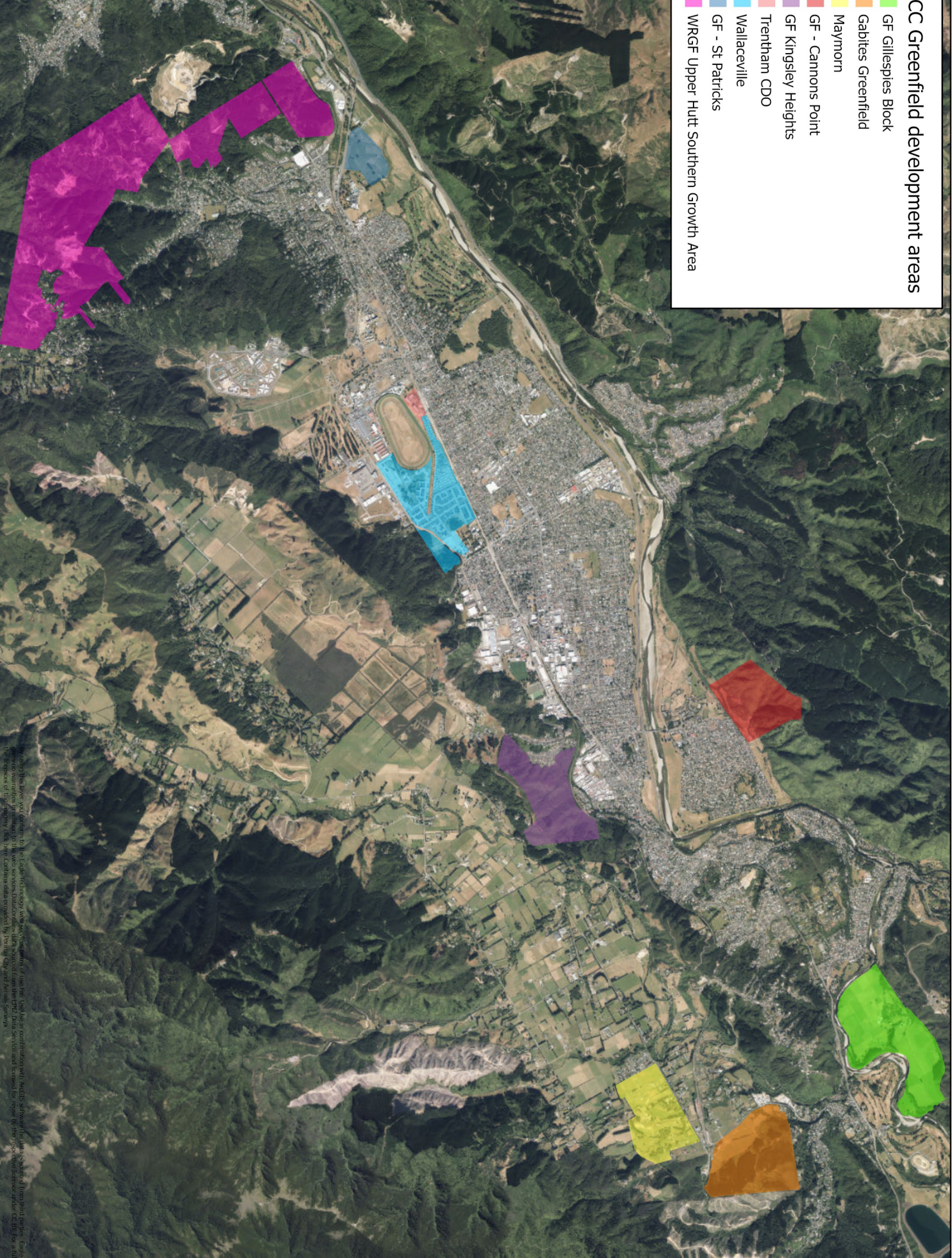
1/2 of Southern Growth as split over two zones 25 30 20 15 15 15

Need maps of greenfields for Ableys
Which SA2 Zones are SGA

	Total	2033							2043							2053						
	Allocation	Commercial	Education	Government	Healthcare	Industrial	Other	Retail	Commercial	Education	Government	Healthcare	Industrial	Other	Retail	Commercial	Education	Government	Healthcare	Industrial	Other	Retail
Neighbourhood Centres St Pats	1680	0	0	0	0	0	0	430	0	0	0	500	0	0	250	0	0	0	250	0	0	250
Alexander Road	20736	0	0	0	0	0	0	0	0	0	0	0	9184	0	0	0	0	0	0	11552	0	0
Eastern Hutt Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fergusson Drive Silverstream	1500	0	0	0	0	0	0	500	0	0	0	0	500	0	0	0	0	0	0	500	0	0
Lane Street	20736	0	0	0	0	0	0	0	0	0	0	0	9184	0	0	0	0	0	0	11552	0	0
Lower Fergusson	500	0	0	0	0	0	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maymorn	20736	0	0	0	0	0	0	0	0	0	0	0	9184	0	0	0	0	0	0	11552	0	0
Montgomery Crescent	20736	0	0	0	0	0	0	0	0	0	0	0	9184	0	0	0	0	0	0	11552	0	0
Park Street	20736	0	0	0	0	0	0	0	0	0	0	0	9184	0	0	0	0	0	0	11552	0	0
Silverstream	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upper Fergusson	200	0	0	0	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upper Hutt CBD	83715	2500	0	0	790	0	0	10512	3500	0	789	8536	0	0	19038	3000	0	4272	9705	0	0	21073
Ward Street	6816	0	0	6000	0	0	0	0	0	0	416	0	0	0	0	0	400	0	0	0	0	0
Whakatiki Street	20736	0	0	0	0	0	0	0	0	0	0	0	9184	0	0	0	0	0	0	11552	0	0
Trentham PDA	26780	8500	0	0	4000	0	9300	4980	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	245607	2796	4345	2589	4790	-3966	1640	17122	4538	11816	4616	9036	55604	3226	19288	5084	13101	4672	9955	69812	3128	21323

CC Greenfield development areas

- GF Gillespies Block
- GF Gabites Greenfield
- Maymorn
- GF - Cannons Point
- GF Kingsley Heights
- Trentham CDO
- Wallaceville
- GF - St Patricks
- WRGF Upper Hutt Southern Growth Area



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