

Time	Topic	Purpose	Presenter(s)	Format	Time allocated
10.00am	Wairere Drive and Gordonton Road intersection safety improvements <i>The purpose of this session is for Elected Members to discuss all options and how staff would engage with the Community concerning safety improvements the Community concerning safety improvements at the intersection of Gordonton Road and Wairere Drive, prior to reporting back to the next Infrastructure meeting.</i>		Eeva-Liisa Wright Robyn Denton	Open Briefing	60 mins
11.00am	MORNING TEA				15 mins
11.15am	2024 LTP Growth Line Recommendation - <i>The purpose of this session is to inform Elected Members of the proposed growth projections ahead of the 14 June 2023 Strategic Growth Committee meeting.</i>		Greg Carstens Andy Zhao Blair Bowcott	Open Briefing	90 mins
SESSION ENDS					

DISCUSSION TOPIC SUMMARY

Topic: Gordonton Road / Wairere Drive intersection safety improvements

Related Committee: Infrastructure and Transport Committee

Business Unit/Group: Transport Unit / Infrastructure Operations Group

Key Staff Contact/s: Robyn Denton

Direction Discussion/Drop in Session recommended? Status: EM briefing – open.

PURPOSE OF TOPIC/INFORMATION

The 7 March 2023 Infrastructure and Transport Committee meeting resolved:

- c) requests staff organise a workshop to discuss all options and how staff would engage with the Community concerning safety improvements at the intersection of Gordonton Road and Wairere Drive, prior to reporting back to the next meeting of the Committee for approval; and

Members need information on this topic, so they are informed ahead of making a decision on 30 May 2023 at the Infrastructure and Transport Committee meeting on whether to approve the staff recommendation for raised safety platforms to be installed on four approaches to the Gordonton Road and Wairere Drive roundabout.

WHAT KEY THINGS SHOULD MEMBERS THINK ABOUT/ CONSIDER IN UNDERSTANDING THIS INFORMATION?

- The current intersection format of a roundabout is working well for moving traffic and flows have improved since the opening of the Waikato Expressway.
- The existing intersection has great facilities for people who are walking and biking in the area – with fully separated underpass network
- We have previously done a lot of additional signage for the north bound approach on Wairere Drive to the intersection – but the crashes have continued.
- The intersection has had a lower speed limit approved (to 50km/h) but the installation of the signage for this is on hold pending the decision on the raised safety platforms. It will be more efficient and cost effective to do the speed limit signage at the same time as the raised safety platforms.
- Work is currently underway for the upgrade of the central guardrail at the intersection. While this will be stronger than the current barrier which has had cars go through it and into the central area below, it is recommended that we still need to get lower speeds at this intersection.
- There are crashes happening regularly at the intersection which are being reported to the NZ Police and therefore able to be included in our reporting – but we know that there are unreported crashes occurring based on damage observed to the barriers and signage at the site.
- There is a risk that a vehicle will hit the central barrier at a speed that is too high (over 50km/h) and the vehicle or parts of the vehicle will hit a person in the lower central area being used by people walking and cycling
- There is a risk of a serious injury or death resulting from the crashes occurring within the intersection where speeds are higher than 50km/h currently.
- There is support for this work from Waka Kotahi NZ Transport Agency as part of their safety programme – and funding is available through the Low Cost Low Risk programme.
- We have already completed consultation with the nearby residents, business and owners – and there has been little or no feedback on the proposal other than in relation to the improvements proposed for walking

and biking facilities

- Key stakeholder representative groups AA and Living Streets are in support of the proposed work
- Members need to consider the following Access Hamilton outcomes, alongside this information:
 - A safe transport network
 - A network that supports quality growth and urban development.

WHERE CAN MEMBERS FIND MORE INFORMATION?

- Previous report to the Infrastructure and Transport Committee on 7 March 2023 can be found [here](#) – item #10, page 79
- Information on raised safety platforms can be found on the HCC website [here](#).
- Waka Kotahi Youtube video on raised safety platforms can be viewed [here](#)

WHAT DIRECTION/FEEDBACK/INPUT DO YOU NEED FROM ELECTED MEMBERS

A report is planned for the 30 May 2023 Infrastructure and Transport Committee seeking approval to proceed with the safety improvements as outlined in the presentation.

Staff would like to know:

- is anything further that Members would like covered in the staff report?
- are there any other options Members would like to see covered in the report?
- are there any additional known views of the community that need to be considered?

Wairere Drive / Gordonton Road safety improvements

Purpose of Briefing/Workshop

The 7 March 2023 Infrastructure and Transport Committee having considered the report on the Traffic Impacts of WEX and Improvements to Wairere Drive / Gordonton Road roundabout resolved:

- c) requests staff organise a workshop to discuss all options and how staff would engage with the Community concerning safety improvements at the intersection of Gordonton Road and Wairere Drive, prior to reporting back to the next meeting of the Committee for approval; and

Wairere Drive / Gordonton Road safety improvements

How does this relate to Access Hamilton?



**Supports quality
growth and urban
development**

An adaptable, future ready transport system that support quality and compact urban form.



**A safe transport
system**

Everyone is safe and feels safe while using our streets and public spaces

Wairere Drive / Gordonton Road safety improvements

What is the problem?

Based on 2017 - 2022 data:

- total of 71 crashes
- 62 non injury crashes
- 8 minor injury crashes
- 1 serious crash
- 0 fatal crashes
- 25 crashes hit central guard rail in roundabout
- northbound approach on Wairere Drive had the highest number of crashes, but crashes occur from all approaches.

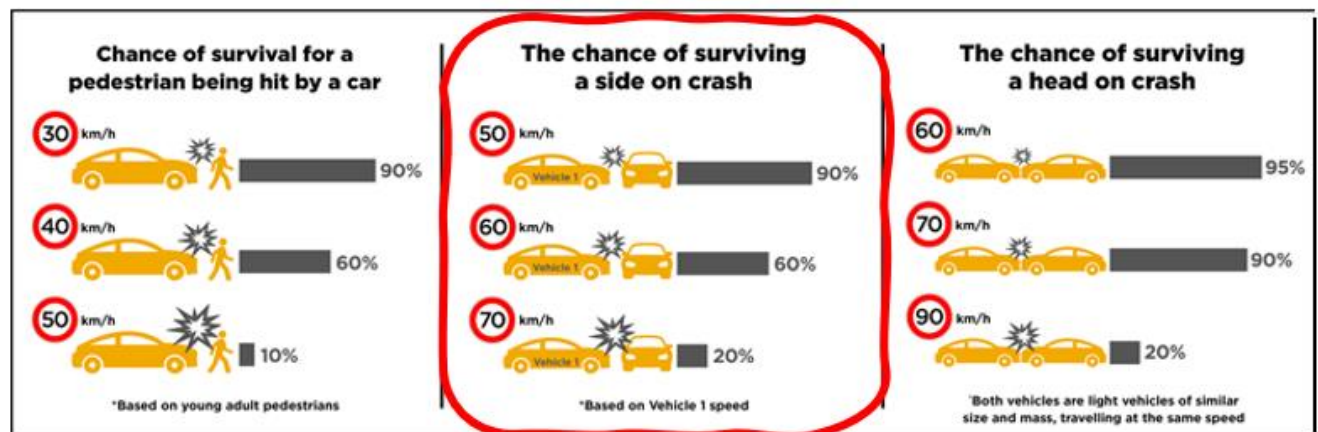


Wairere Drive / Gordonton Road safety improvements

What is the problem?



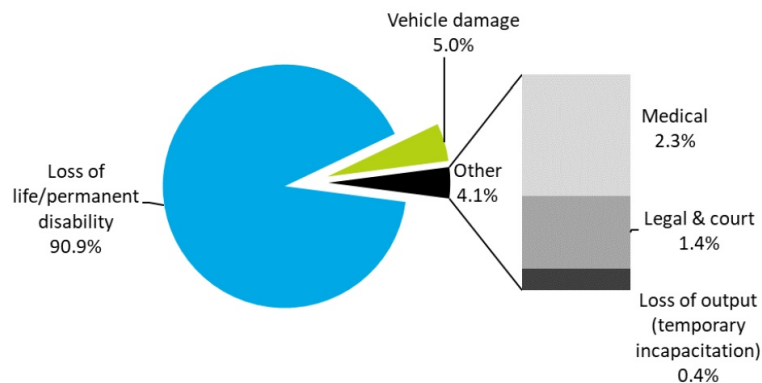
While 85% of the vehicles moving through the site are appropriate and safe, there are speeds measured at greater than 100km/h on both the Wairere Drive approaches and Pardoia Boulevard approach.



Wairere Drive / Gordonton Road safety improvements

What is the cost of a crash?

Figure 1: Share of total social cost of fatal and injury crashes in 2019



Total social cost of injury crashes in 2019 = \$4.2 billion (June 2020 prices)

Cost components	Severity		
	Fatal	Serious	Minor
	June 2020 prices (\$)		
Loss of life/permanent disability	5,240,300	505,600	21,400
Loss of output (temporary disability)	800	1,800	400
Medical –	15,200	17,600	1,100
Hospital/medical	8,700	10,800	200
Emergency/pre-hospital	4,400	1,500	800
Follow-on	2,200	5,300	100
Legal and court	32,700	3,900	1,300
Vehicle damage	12,800	8,000	6,500
Total	5,301,800	537,000	30,600

Wairere Drive / Gordonton Road safety improvements

What has been done to date?



Wairere Drive / Gordonton Road safety improvements

What has been done to date?



Wairere Drive / Gordonton Road safety improvements

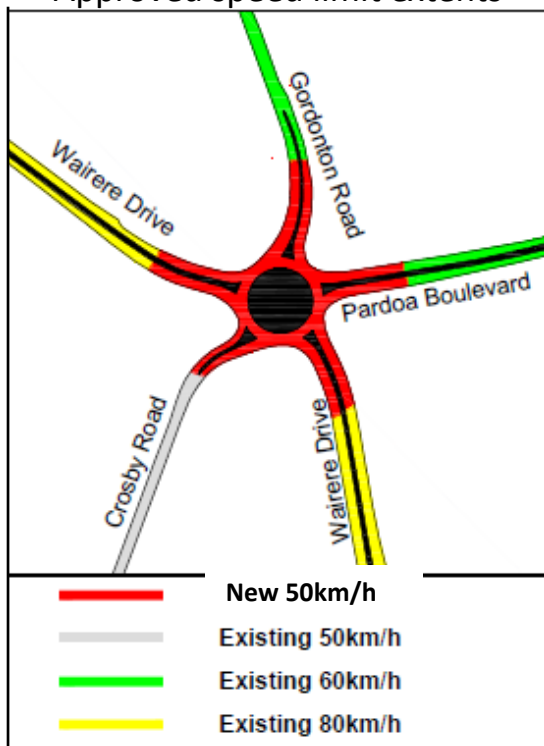
What has been done to date?



Wairere Drive / Gordonton Road safety improvements

What is planned?

Approved speed limit extents



Lower Speed limit for the intersection

- approved at the 22 February 2023 Traffic, Speed Limits and Road Closure Hearings Panel meeting.
- Signage to be installed with construction of RSP's

Guardrail improvements in the central roundabout island.

- upgraded to a stronger beam which will better withstand impacts from vehicles.
- will reduce the likelihood of vehicles punching through the barrier and landing in the central area below BUT there is a need to manage vehicle speeds to provide certainty of any barrier system working well.

Wairere Drive / Gordonton Road safety improvements

The crashes are continuing

Saturday 25 March



Stuff

waikato times

Crash could cause delays to Hamilton commuters

Jo Lines-MacKenzie · 07:39, Mar 17 2023



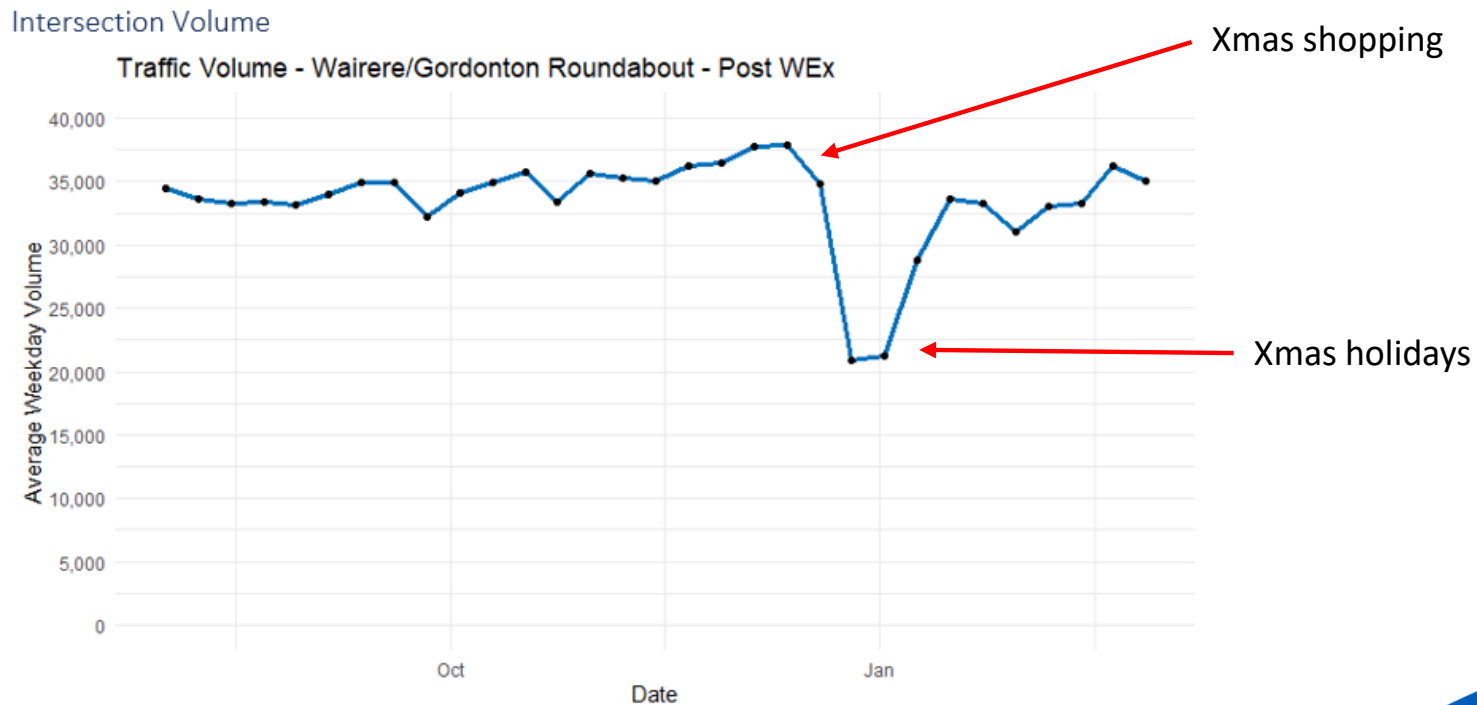
A two-vehicle crash on Wairere Dr in Hamilton could cause delays for commuters on Friday morning.

The incident happened in the westbound lane of Wairere Dr just after 7am at the roundabout with Gordonton Rd, Pardoia Boulevard and Crosby Rd.

Senior Sergeant Andrew O'Reilly said there had been moderate injuries, and while not necessarily the cause, he urged people to drive to the conditions with wet weather around the city.

Wairere Drive / Gordonton Road safety improvements

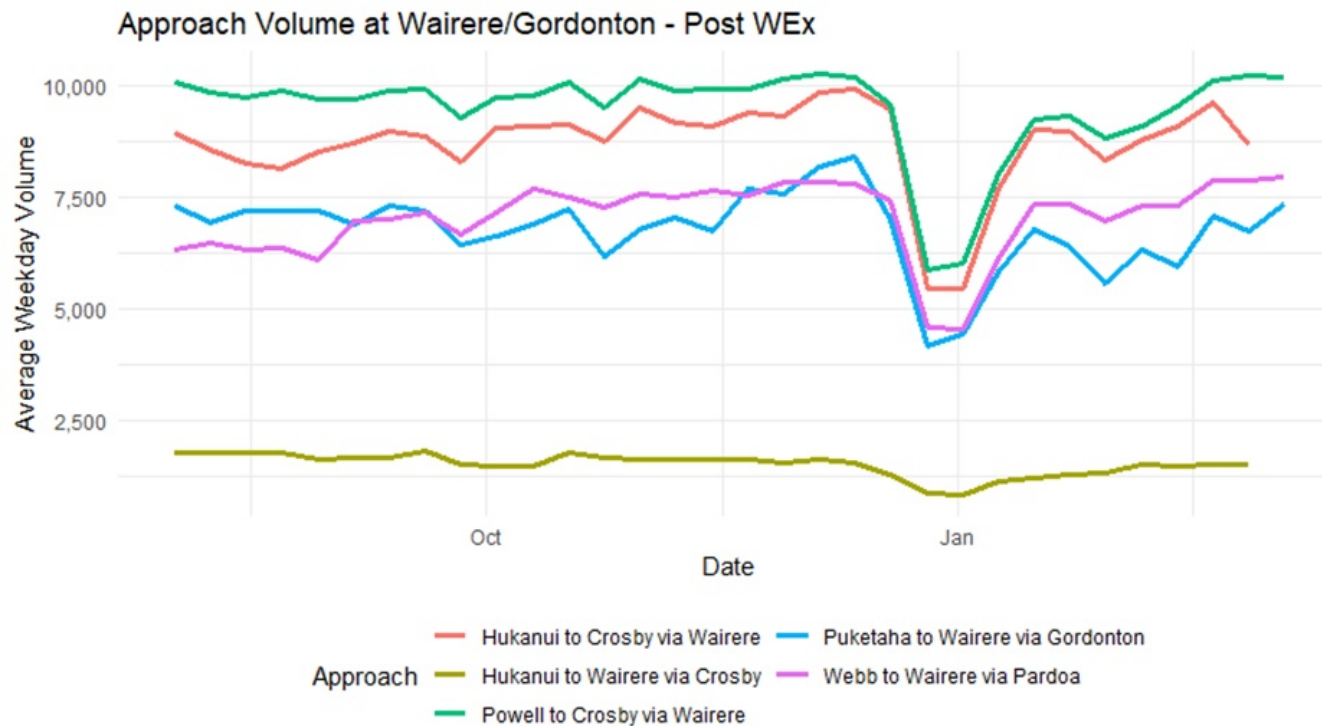
What data do we have for this intersection?



- Daily traffic volume at the roundabout has remained stable at 33K/day

Wairere Drive / Gordonton Road safety improvements

What data do we have for this intersection?



The opening of WEX has resulted in more balanced traffic flows on the four major approaches to the intersection

Wairere Drive / Gordonton Road safety improvements

What data do we have for this intersection?

Overall **Level of Service** for the whole intersection

- calculated using a 'volume weighted delay' on each approach.
- Uses the standard measurement of Level of Service – which is based on delay measurement:

LOS Grade	A	B	C	D	E	F
Delay (seconds)	0-10	11-15	16-25	26-35	36-50	51+

- The results indicate

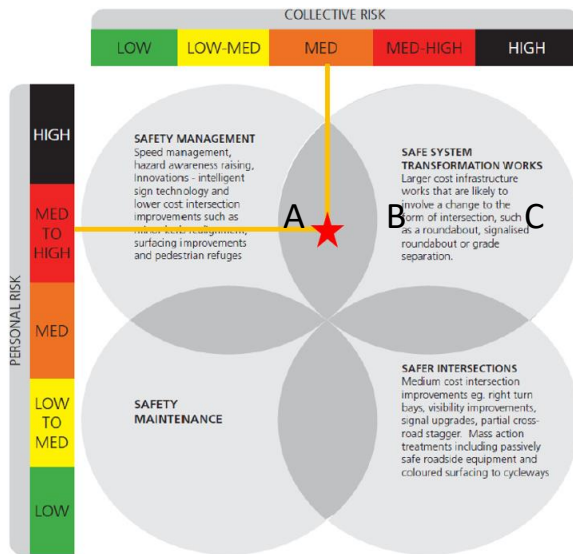
Intersection LOS

	AM Peak			
	June 22	Sep 22	Nov 22	Feb 23
LOS	F	E	E	F
AvgDelay (s)	91	49	37	73

	PM Peak			
	June 22	Sep 22	Nov 22	Feb 23
LOS	F	E	E	F
AvgDelay (s)	75	71	60	81

Wairere Drive / Gordonton Road safety improvements

What are the options?



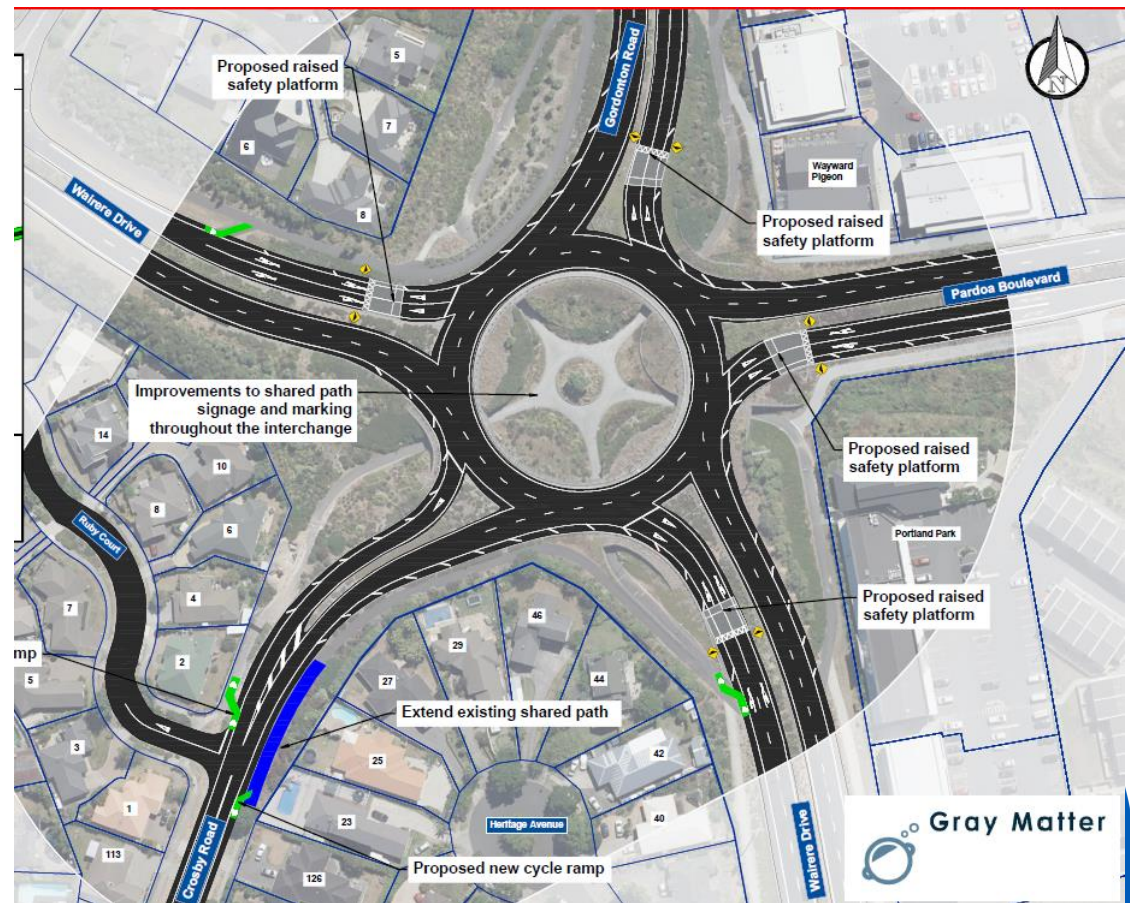
Option	Proposed Improvement	Estimated costs \$
A	Installation of Raised Safety Platforms on four approaches to existing roundabout	Low \$1.6M
B	Installation of traffic signals on approaches to the existing intersection	Medium \$ 5-8M
C	Removal of roundabout and replacement with traffic signals and raised safety platforms	High \$15M +

Wairere Drive / Gordonton Road safety improvements

What is being recommended?

Option A is the preferred option:

- raised safety platforms on 4 approaches
- extending existing shared paths
- creating and improving cycle ramps to get on/off road easily
- additional wayfinding signage on shared paths in centre of roundabout



Wairere Drive / Gordonton Road safety improvements

What consultation has been done?



Letter drop to residents, businesses and property owners as shown in light blue highlight

Invites to workshops:

- Waka Kotahi NZ Transport Agency
- Fire and Emergency NZ
- Bike Waikato
- Living Streets
- NZ Police

Letters to the following organisations:

- Waka Kotahi NZ Transport Agency
- Waikato Regional Council
- Fire and Emergency NZ
- Bike Waikato
- Living Streets
- NZ Police
- Automobile Association
- Transporting NZ
- National Road Carriers
- Heavy Haulage Association

Wairere Drive / Gordonton Road safety improvements

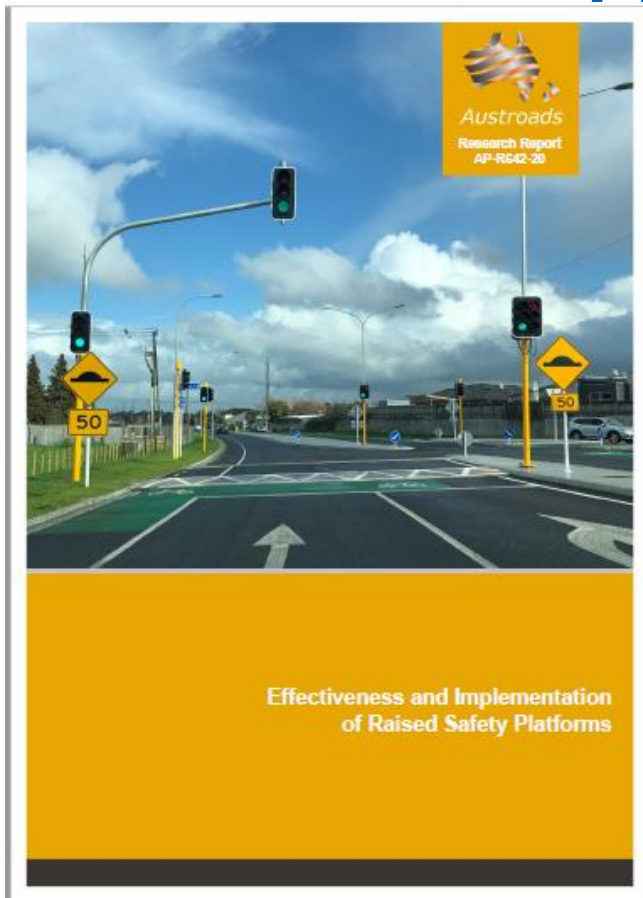
What was the consultation feedback

Consultation feedback:

- Strong support from NZ Automobile Association
- Support from Living Streets on lowering of the posted speed limit through this roundabout
- Written support from one of the residents and suggestions to include bollards as cars drive down the shared path
- Email from Colliers requesting for hand rails on the shared path to slow the foot traffic and confirmation that they have received the correspondence re the safety improvements.

Wairere Drive / Gordonton Road safety improvements

Will raised safety platforms create delays?



“Impacts on intersection capacity appear to be mixed, with little evidence that the RSPs alone materially affect intersection capacity.”

“It was also observed the RSPs might replicate the effect of the way limiting motorway speed during times of high volume can increase throughput (i.e. reducing the operating speed somewhat at the intersection may not necessarily have any effect on throughput during times of high volumes).”

Wairere Drive / Gordonton Road safety improvements

Will raised safety platforms create delays?

Tristram/Rostrevor roundabout

- Off-peak travel times on each of the four approaches (including going through the intersection) are basically the same
- Peak travel time is generally slightly lower on all four approaches
- Volumes were also generally the same both before and after
- Conclusion is the speed cushions had negligible impact on travel time, if anything they actually increased efficiency

Te Rapa/Church roundabout

- Travel times increased slightly on each leg, ranging from 2% to 6%, with an overall total of 5% increase in travel time
- For context, the average travel time for all vehicles approaching and using the intersection is about 45s, so this increased by about 2s or so
- This increase is fairly consistent across the day, but actually lower in the peak times
- Volumes were about 1% lower
- Conclusion is that travel times have increased slightly due to vehicles having to travel slower to negotiate the RSP's, but there is no worsening on efficiency and in fact it appears to have actually "smoothed" the peaks providing a lower peak travel time and a more consistent travel time across the day (less fluctuation than before when comparing off-peak to peak).

Wairere Drive / Gordonton Road safety improvements

Will raised safety platforms create delays?

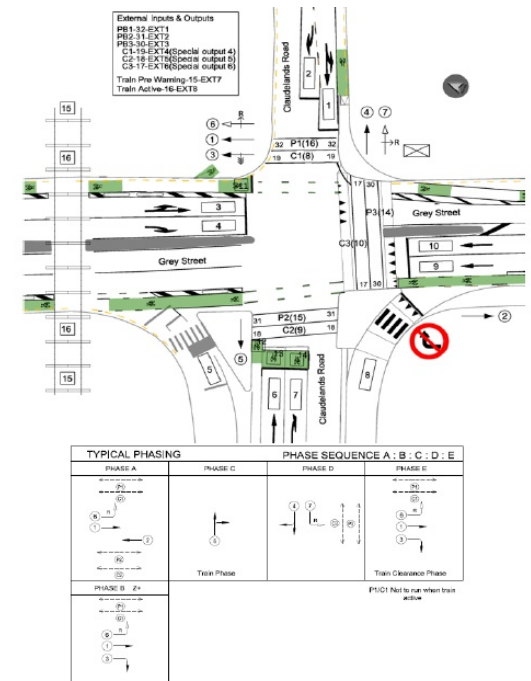
Every second counts in the design of traffic signal operations.

The design used for signalised intersections with raised safety platforms sometimes has 1 second added to full red time for one or two of the phases – not all.

The capacity (number of the vehicles through the intersection) is not affected by the raised safety platforms.

PHASE	LS	LS SG	MG	IN	MV	MAX	ECO	ECO SG	YEL	RED	SRED
A			5			35			4.5	1.5	3.0
B(2+)			5			15			4.5	1.5	0.0
C			5			25			4.0	1.0	2.5
D			5			25			4.5	2.0	4.0
E			5			25			4.0	1.5	3.0

Phase	Delta	Table	SG	Appr No.	Gap	Hwy	Waste	Delta	Table	SG	Appr No.	App Timer Setting (1-4)
A	3	21	1	1	3	1.2	15				5	
	9	1	2	2	3	1.2	15				6	
	10	1	2	3	3	1.2	15				7	
				4							8	
B(2+)	3	21	1	1	3	1.2	15				5	
	4	13	3	2	3	0.8	15				6	
				4							7	
				5							8	
C	6	1	5	1	3	1.2	15				5	
	7	1	5	2	3	0.8	15				6	
				3							7	
				4							8	
D	1	1	4	1	3	1.2	15				5	
	2	1M	4	2	3	0.8	15				6	
				3							7	
				4							8	
E	3	21	1	1	3	1.2	15				5	
	4	13	3	2	3	0.8	15				6	
				3							7	
				4							8	



Wairere Drive / Gordonton Road safety improvements

Will raised safety platforms create delays?

We believe that the raised safety platforms will generally not add any time to a normal journey.

Any extra time will be no more than 1 or 2 seconds

There are lots of things that can result in increased travel time in a normal journey:

- slowing to check the intersection is clear and safe to enter
- having to stop instead of give way at an intersection because there is a vehicle coming
- hitting a red light instead of a green one
- giving way to a person walking or biking across the road
- bad weather
- road works
- other vehicles moving slowly

Wairere Drive / Gordonton Road safety improvements

How will we build the raised safety platforms?

Will follow a similar methodology to that at Te Rapa/Church

- Single lane circulating between 9am and 3pm for drainage and kerbing works.
- Shoulder closure for footpath/cutdowns i.e. anything off the live lanes.
- Constructed at night as part of single lane circulating, no diversions proposed.

Duration approx. 6 weeks.

Wairere Drive / Gordonton Road safety improvements

How will we communicate to the community?

- Variable Message boards
- Media release.
- Letter drops and regular updates to the properties and businesses in the immediate vicinity .
- Notifications to key stakeholders including emergency services, freight etc
- Information on raised safety platforms available on website

What direction/feedback is needed from Members?

A report is planned for the May 2023 Infrastructure and Transport Committee seeking approval to proceed with the safety improvements as outlined in the presentation.

Staff would like to know:

- is anything further that Members would like covered in the staff report?
- are there any other options Members would like to see covered in the report?
- are there any additional known views of the community that need to be considered?

DISCUSSION TOPIC SUMMARY

Topic: 2024-34 LTP Growth Projections

Related Committee: Strategic Growth Committee

Business Unit/Group: Growth Funding & Analytics / Growth Group

Key Staff Contact/s: Greg Carstens/Andy Zhao

Direction Discussion/Drop in Session recommended? Status: Open, information session

PURPOSE OF TOPIC/INFORMATION

- The purpose of this workshop is to inform elected members about its growth projections in the lead up to the adoption of a growth projection line for the 2024-34 Long Term Plan at the 14 June 2023 Strategic Growth Committee meeting.
- The session will cover what growth projections are, what they are used for and the significance of them to Council.
- It is important that members understand the background and context that underpins adopting a growth line for the Long-Term Plan, as the growth projections support several parts of the business in the development of the 2024-34 Long Term Plan.

WHAT KEY THINGS SHOULD MEMBERS THINK ABOUT/ CONSIDER IN UNDERSTANDING THIS INFORMATION?

- Growth projections are a projection of the change in population over time and informs the demand for services for housing and non-residential land use.
- Growth projections are legally required by the Local Government Act to enable a local authority to prepare the financial and infrastructure strategies.
- Growth projections help councils to understand the scale, location and timing of investment to deliver to the needs of the community.
- Failing to adopt growth projections on time will introduce significant business continuity risk and cause potential delay to council's 2024-34 Long Term Plan process.

KEY SUMMARY POINTS

- Demographic projections are produced by expert demographers using Census data and economic/demographic models. These models output population and household/dwelling projections for a given area over the long term (50 years).
- The projections are used as an input to council's long term strategic planning for infrastructure investment and urban development.
- The main provider of demographic projections are Statistics New Zealand and National Institute of Demographic and Economic Analysis (NIDEA) from University of Waikato.
- The NIDEA 2021 projections were adopted by all Future Proof partners in 2021-31 Long Term Plan, the intention is that the partners will continue to use the 'high' projection for 2024-34 Long Term Plan.

WHERE CAN MEMBERS FIND MORE INFORMATION?

- The council report adopting NIDEA growth projections for 2021-31 Long Term Plan and the peer review report of NIDEA growth projections can be found [here](#).
- NIDEA's growth projections can be found [here](#).

- Statistics New Zealand's population projection can be found [here](#).
- Statistics New Zealand's household projection can be found [here](#).

WHAT DIRECTION/FEEDBACK/INPUT DO YOU NEED FROM ELECTED MEMBERS

- This session is for information purposes only. It is designed to support elected members' decision making on the adoption of a growth projection line at the 14 June 2023 Strategic Growth Committee.

17 May 2023

2024-34 LTP Growth Projections

- Growth Funding & Analytics Unit

Purpose & Agenda

- **Purpose**

Brief elected members in the lead up to the adoption of a dwelling and population growth projection line for the 2024-34 Long Term Plan.

Non-residential projections are dealt with separately through the HBA.

- **What we'll cover**

- What are growth projections?
- What are growth projections used for?
- What is the significance and limits of growth projections for Council?
- Who are the providers of growth projections
- Options
- Staff recommendations
- Who are Analytics team behind the growth projections?
- The Sushi Model

Background

What are growth projections?

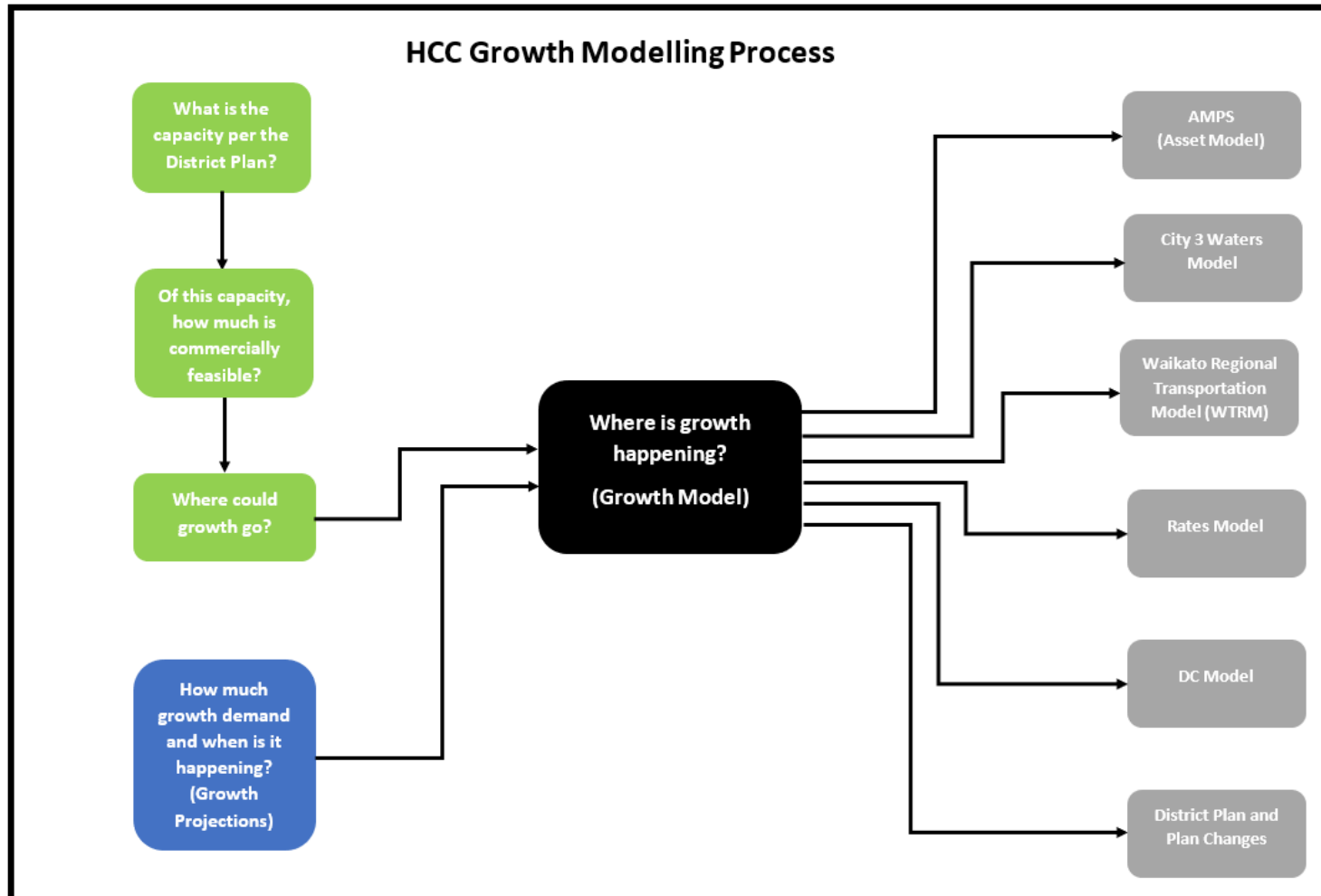
- Growth projections project, over the long term (50 years) the increase in **population** and **new dwellings**
- **Growth projections are not predictions or forecasts**, they are only an assumption about future growth
- Growth projections are legally required by the LGA to enable a local authority to prepare the financial and infrastructure strategies.
- Projections help councils to understand the **scale, location and timing of growth** to inform its infrastructure and planning decisions in order to meet the long term needs of the community.

Growth projections use cases

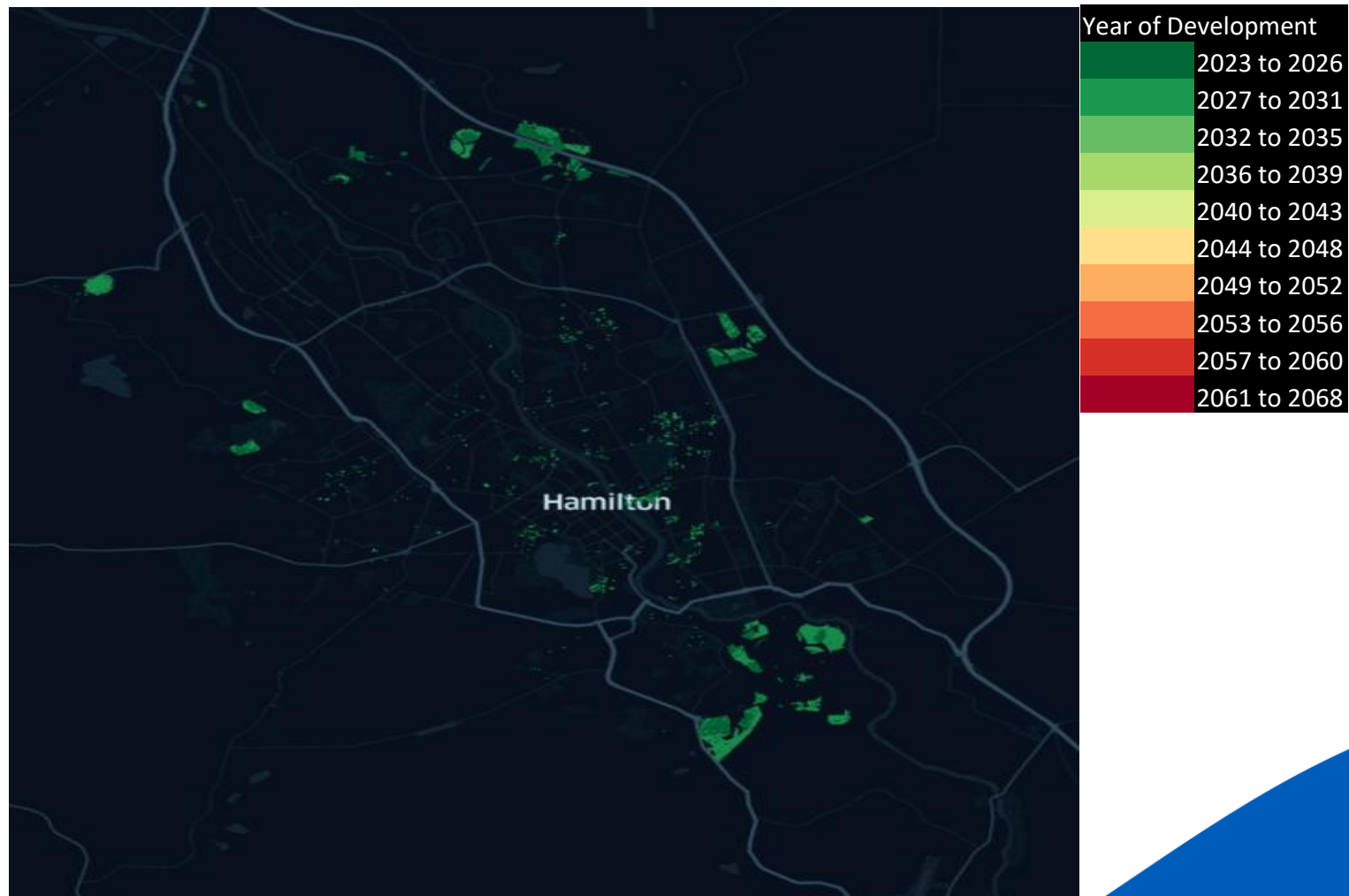
Where are growth projections used?

- District Plan/urban planning
- Long-term strategic infrastructure planning
 - 3 Waters
 - Transportation
 - Parks and community infrastructure
- Capital investment decisions
- Community facility planning (AMPS)
- Development Contributions
- Rates modelling

Growth projection modelling environment



Plan Change 12 growth modelling output



What happens if (when) growth differs from projections?

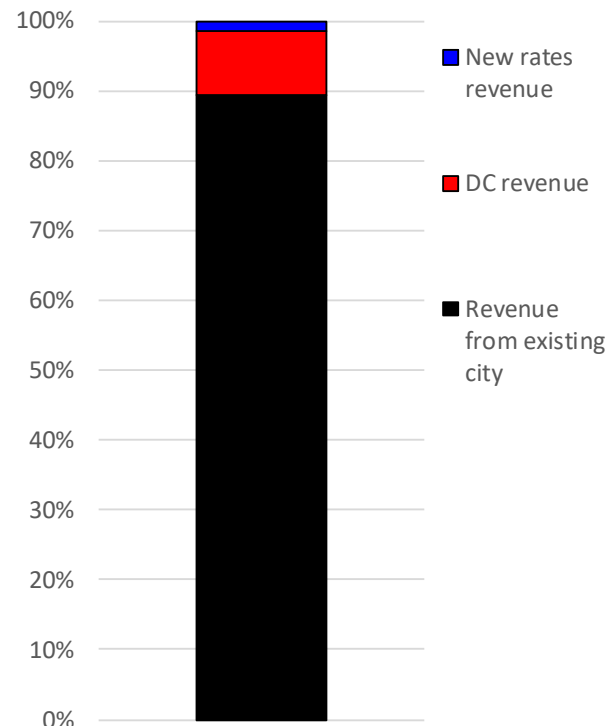
- **Critical point:** it is obvious but worth reminding, that the Council's choice of a growth line does not directly impact or determine how much growth there will be, it is merely the assumption on which it bases certain decisions.
- **What if Hamilton grew faster than projected?**
 - Less zoned and serviced land
 - More competitive housing market (pushing land prices higher)
 - More development contributions (DC) revenue and rates revenue
 - Puts HCC in better financial position
 - Quicker repayment of growth debt and cheaper financing cost on interest

What happens if (when) growth differs from projections?

- More zoned and serviced land than expected
- Less competitive housing market
- Less development contributions (DC) revenue and rates revenue than expected
- Slower repayment of growth debt and more expensive financing cost on interest

But, Council is, broadly speaking, well buffered because the majority of its revenue base is not directly tied to growth

Growth revenue vs existing revenue (10YP)



Resilience and flexibility

- Accurate growth projections will lead to more efficient and effective infrastructure and land use planning.
- But, to provide some comfort, Council has resilience and can adjust to over or under projecting growth by:
 - deferring or bringing forward capex through Annual Plans or the 3-yearly LTP cycle, and regular Finance Committee meetings
 - Making land use decisions through its regular SG & DP committee and Council meetings
 - Pursuing government funding opportunities

How does the GF&A Unit monitor growth?

The Growth Funding & Analytics unit monitors growth in the city closely. Any significant variances are highlighted and incorporated into decision making. Some of these include:

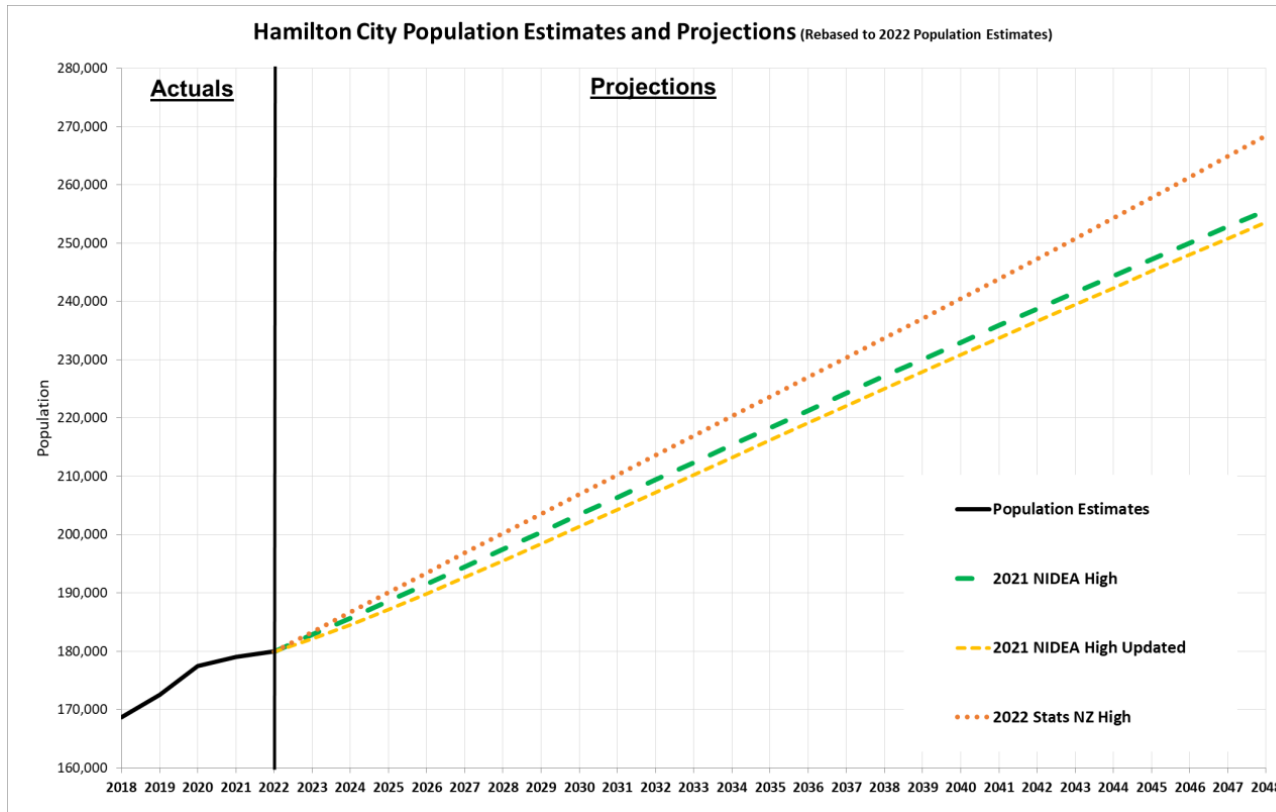
- The number of consents for both subdivisions and dwellings
- The types of dwellings consented
- The number of Code of Compliance Certificates issued (homes completed)
- Statistics New Zealand's Census population numbers and annual population estimates
- Monitoring and even reporting for Future Proof Council on their growth monitoring
- Short term projections reflect the economic environment
- Innovative machine learning to project market behaviour
- Geo-spatial analysis to monitor the land supply and growth capacity
- Commercial feasibility simulation of residential development
- Infrastructure constraints and the impact on growth projections allocation

2024-34 LTP growth projection line options

Options	Name	Provider	Projection Period	Release Time	Baseline Census Year	Projection Frequency	High Level Method	Component
1	2021 NIDEA High (Preferred)	National Institute of Demographic and Economic Analysis	2018(base)–2068	Apr-21	Stats NZ 2018 Census	Yearly	Bottom-up	Population, Household, Employment
2	2021 NIDEA High Updated	National Institute of Demographic and Economic Analysis	2018(base)–2068	Nov-22	Stats NZ 2018 Census	Yearly	Bottom-up	Population, Household, Employment
3	Stats NZ High	Statistics NZ	2018(base)–2048	Dec-21 & Dec-22	Stats NZ 2018 Census	Five Yearly	Top-down	Population, Household

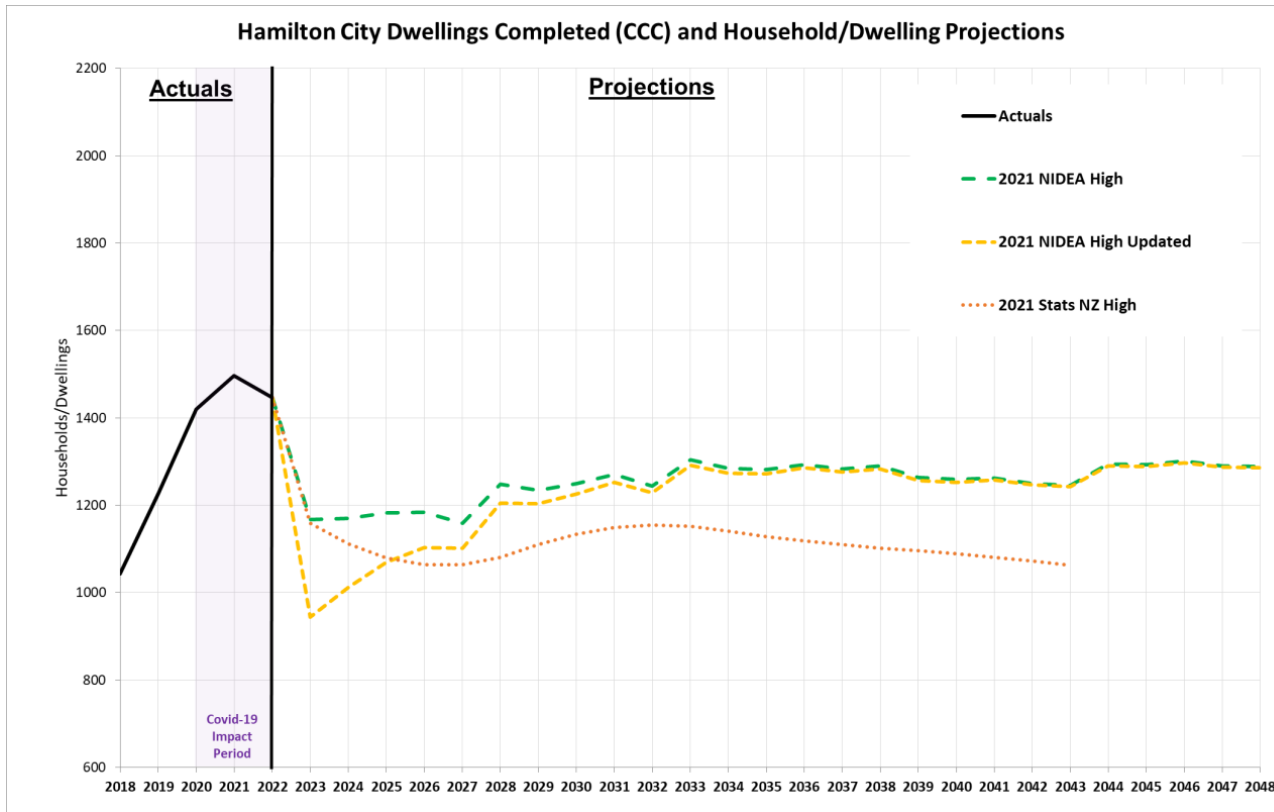
- There are really only two providers that have access to the required data, technology and skillsets/expertise: Stats NZ and NIDEA
- Council adopted 2021 NIDEA High for the 2021-31 LTP and the subsequent annual plans
- NIDEA has recently renamed as Te Ngira

Option comparison - population



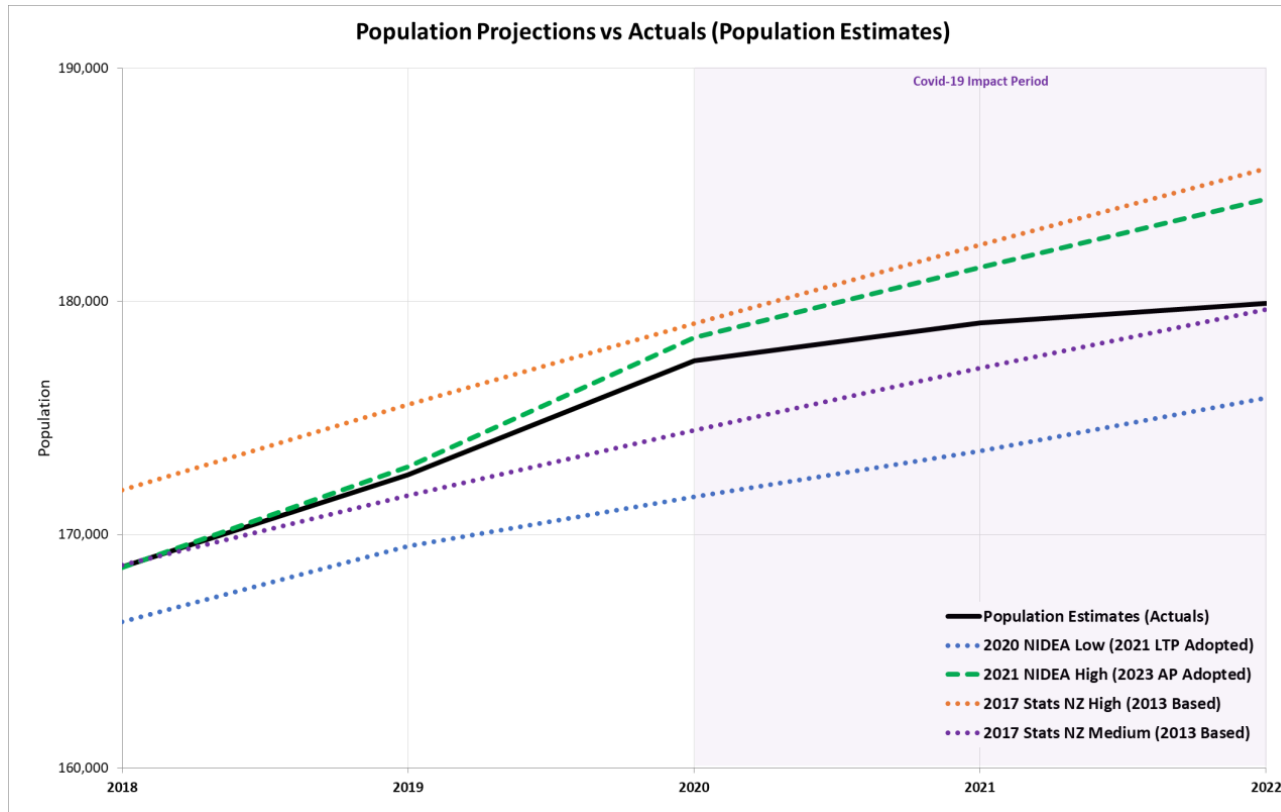
Cumulative Population Projections (2022 PE Rebased)	2021 NIDEA High	2021 NIDEA High Updated	Variance against 2021 NIDEA High	2022 Stats NZ High	Variance against 2021 NIDEA High
2023	182,818	182,133	-685	183,303	485
2024	185,697	184,542	-1,155	186,688	991
2025	188,604	187,125	-1,478	190,071	1,467
2026	191,538	189,837	-1,700	193,451	1,913
2027	194,495	192,642	-1,853	196,828	2,334
2028	197,471	195,513	-1,958	200,203	2,732
2029	200,454	198,424	-2,030	203,575	3,120
2030	203,441	201,362	-2,080	206,942	3,501
2031	206,431	204,318	-2,113	210,304	3,873
2032	209,419	207,284	-2,135	213,658	4,238
2033	212,404	210,255	-2,149	217,003	4,599
2034	215,379	213,223	-2,157	220,339	4,960

Option comparison - household



Additive Household/Dwelling Projections	2021 NIDEA High	2021 NIDEA High Updated	Variance against 2021 NIDEA High	2022 Stats NZ High	Variance against 2021 NIDEA High
2023	1,168	943	-225	1,159	-9
2024	1,170	1,012	-158	1,111	-59
2025	1,183	1,070	-112	1,079	-103
2026	1,183	1,103	-80	1,064	-120
2027	1,159	1,101	-58	1,064	-95
2028	1,248	1,205	-42	1,081	-166
2029	1,235	1,204	-31	1,110	-124
2030	1,250	1,226	-23	1,134	-115
2031	1,270	1,252	-18	1,149	-121
2032	1,244	1,229	-14	1,155	-89
2033	1,303	1,291	-12	1,151	-152
2034	1,284	1,274	-11	1,140	-144
Cumulative Total	14,696	13,912	-784	13,399	-1,297

How did historic projections perform?



Histoic Population Projections	2020 NIDEA Low (2021 LTP Adopted)	2021 NIDEA High (2023 AP Adopted)	2017 Stats NZ High (2013 Based)	2017 Stats NZ Medium (2013 Based)	Actuals
2018	166,270	168,600	171,900	168,700	168,620
2019	169,502	172,919	175,565	171,682	172,560
2020	171,613	178,443	179,067	174,484	177,460
2021	173,598	181,467	182,438	177,137	179,080
2022	175,853	184,404	185,706	179,666	179,920

Why are we recommending NIDEA high?

- Peer review endorsed
- NIDEA recommended use of NIDEA high projection line
- Population and dwelling projections are consistent
- Uses a bottom-up approach that take account of local insight and trends
- Consistency with Future Proof partners

Why we're not recommending option 2

After detailed analysis, we believe Option 1 uses the best long-term assumptions and produced the most robust result.

Additional reasons options 2 and 3 are not recommended:

- **Option 2 - NIDEA High Updated**

- Population projection is close to NIDEA High but household projection is much lower in the short to medium term
- Extensive uncertainty on international migration flows over future trajectory
- Inconsistent with Future Proof partners' preference
- The NIDEA High Updated projections has not been peer reviewed

Why we're not recommending option 3

- **Option 3 - Stats NZ High**

- Uses a top-down approach that projects NZ growth then distils that growth to a regional level which lacks local insight and does not take into account local development patterns
- Shorter projection period only up to 2048 only at five-year interval
- Population projections are significantly higher (+5000) but dwelling projections are much lower (-1300) than NIDEA over the LTP period.

Summary

Options Name	1	2	3
	2021 NIDEA High (Recommended)	2021 NIDEA High Updated	Stats NZ Projection
Description	2018 Census based with latest update in 2021. The projections was adopted by 2021-31 LTP and subsequent annual plan	2018 Census based with latest update reflecting Covid-19 impact on international migration.	2018 Census based with a "top-down" approach to derive subnational population projections.
Delivery within required timeline	Yes	Yes	Yes
Peer review completed	Yes	No	No
Robustness	Yes	Yes	No
Methology preference	Yes	Yes	No
Result reasonability	Yes	Yes	No
Internal consistency	Yes	No	No
Future Proof preference	Yes	No	No

Analytics Programme

- Growth Funding & Analytics Unit

HCC Analytics Strategy

OUR ANALYTICS VISION

An organisation and community that has easily accessible strategic data and insights, to aid in decision making and enhance performance.

Analytics team



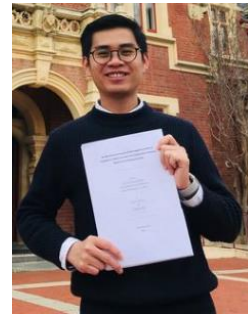
Andy – SQL King



Catt – GIS Queen



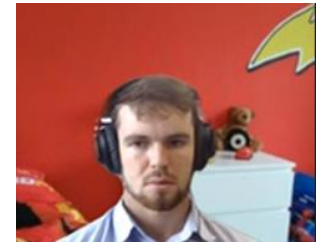
Chris – R Beast



Yong – Chef Economist



Libby – SQL Princess



Marshall – Excel Genius

Data Reporting & requests

- ## HCC's data domain

- Consenting/growth - data Modelling

GIS Modelling

- Spatial Analysis
- Interactive maps

Growth Modelling

- HCC growth model environment

Innovation

- Machine Learning
- Econometric Modelling



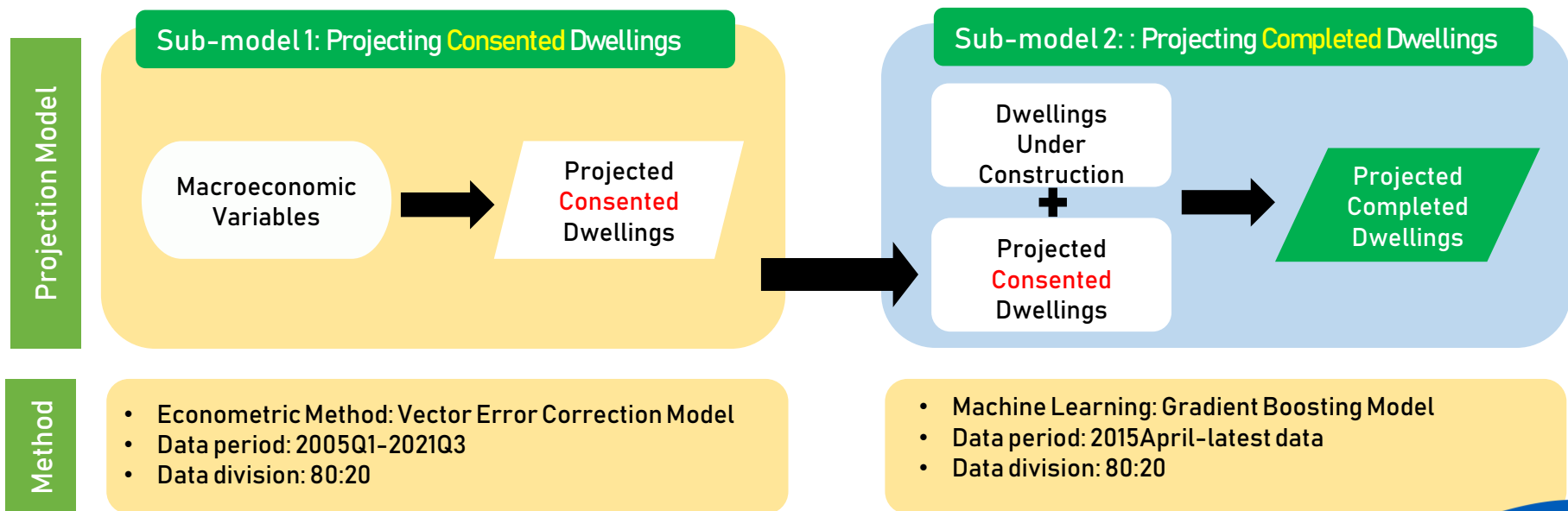
Innovation – short term (1-3 years) dwelling model

- The GF&A team has developed an Economic Model that also projects dwelling demand, but only in the short term
- This model uses market factors and the consenting pipeline to forecast new dwellings, including:
 - Interest rates
 - GDP
 - Employment rate
 - Land price
- This Economic Model does not (and cannot) replace the NIDEA projections and their use for long term planning, but it does provide Council with greater insight into its near term planning

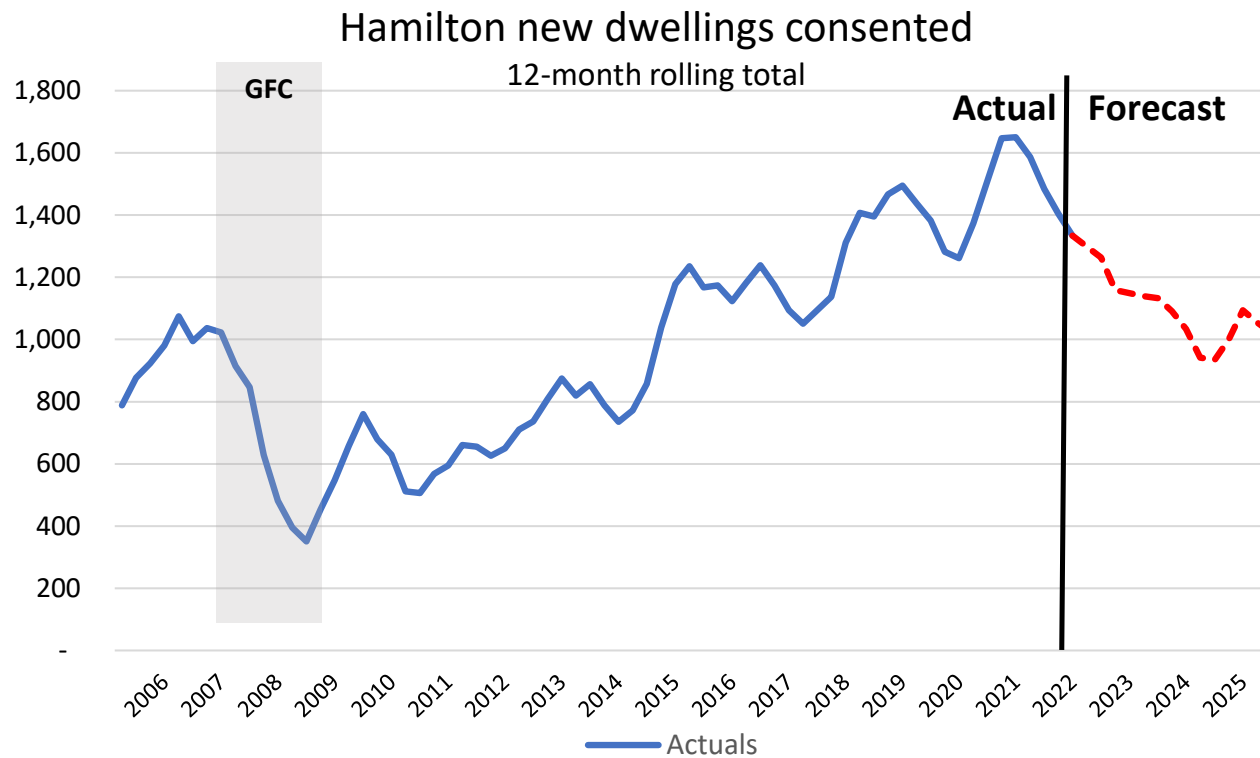
Innovation – short term (1-3 years) dwelling model

Combination Approach

Dwelling Projection Model



Residential consenting forecast




Forecast produced by Growth Funding & Analytics Unit, not an official HCC forecast

Key takeaways

- Council must adopt a growth projection line for its 2024-34 Long Term Plan
- Non-residential projections are dealt with separately through the HBA
- Growth projections project, over the long term (50 years) the increase in population and new dwellings
- Staff have explored a number of alternatives and tested them against a number of key criteria
- Staff recommend NIDEA High 2021 projection for both dwellings (all of city per year) and population
- A report following this presentation and reflecting Elected Member feedback today will be presented to Council at the 14 June 2023 Strategic Growth and District Plan meeting

Questions

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