

Introduction

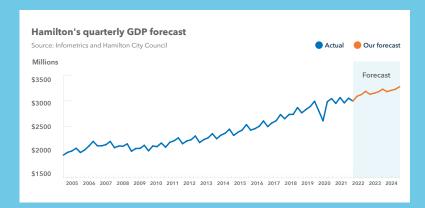
Last year was a booming year for Hamilton's economy with record growth in residential consenting, a return to pre-pandemic levels (and above) for spending and GDP, growth in population and job numbers and lots of big projects under construction around our city. We raced into 2022 on this high only to sail headfirst into high inflation, global uncertainty and an increasingly pessimistic outlook. There are a lot of questions about where Hamilton's economy and growth will head, particularly if the country moves into a recession - two consecutive quarters of negative GDP growth. This report looks at Hamilton's underlying economy, compares it to the outlook during the Global Financial Crisis (GFC) and forecasts the next two to three years. As with all modelling, particularly economic modelling during "unprecedented times", there are high levels of uncertainty. And

as we have seen in the last two years, there is always the chance of something unexpected happening that totally changes the outlook - the economic impact of Russia's invasion of Ukraine is a recent example.



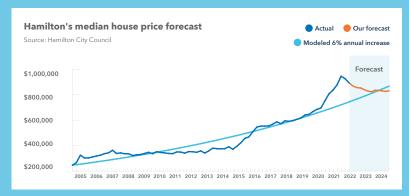
SUMMARY

Summary of forecasts



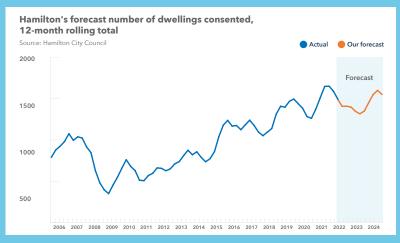
GDP

Overall, Hamilton's annual GDP will continue to grow, although there will be falls in some quarters.



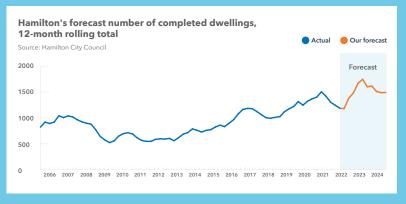
HOUSE PRICES

After peaking in the first quarter of 2022, house prices are expected to fall 12% before levelling out.



CONSENTED DWELLINGS

The record level of residential consenting activity in 2021 is expected to drop off in 2023. We expect the number of new dwellings consented over a 12-month period to be about 20% lower by September 2023.



COMPLETED DWELLINGS

The extensive delays in the construction industry have seen the length of time to complete a dwelling pushed out. As backlogs are cleared, we expect the number of completed dwellings to increase. We are currently at or close to the bottom of the dip and will see the number of dwellings completed begin to increase again from the end of 2022.



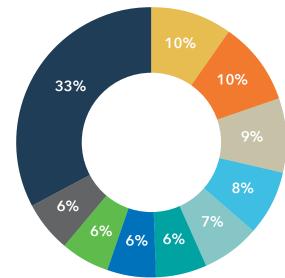
The fundamentals of Hamilton's economy

Hamilton's economy is diverse with the biggest sector - healthcare and social assistance - being just 10% of GDP and 16% of total jobs. There are six sectors that each have 9% to 16% of jobs in Hamilton. Put simply, we have lots of eggs in different baskets. This level of diversification has been a strength through the pandemic and will continue to support our economy should we head into a recession.

Hamilton has experienced higher levels of population, GDP and job growth than New Zealand over the past five years. Since 2017, Hamilton has experienced population growth of 8%, a 15% lift in GDP and a 12% increase in jobs compared to 6%, 10% and 8% increases respectively for New Zealand.

Contribution of key sectors to GDP, 2021

Source: Infometrics



- Healthcare and social assistance
- Manufacturing
- Professional, scientific and technical services
- Owner-occupied property operation
- Construction
- Electricity, gas, water and waste services
- Retail trade
- Wholesale trade
- Public administration and safety
- All others

Hamilton's economy, like the rest of the country, is strongly tied to the global economy. A global recession or high levels of inflation all have an impact locally, be it the increased cost of petrol, lower demand or lower prices for dairy products and exports, or the cost of imported goods used in the production of locally manufactured (or grown) products.

Is this another Global Financial Crisis?

In short, no. But while the GFC was a different type of challenge to the economy, it caused a recession and so provides data to consider what a downturn might look like today.

The GFC caused a demand shock as confidence in the financial system was undermined. As house prices fell and lending institutions collapsed, unemployment climbed, and demand dried up. Banks became risk adverse and restricted lending caused a "credit crunch". In 2022, we are in the midst of a supply shock where demand has been so great, supply has been unable to keep up and prices have been pushed ever higher. Instead of trying to boost demand, the Reserve Bank (RBNZ) is trying to calm it which may result in a recession. There are mixed views on whether we will go into a recession with some saying yes and others saying that it will be

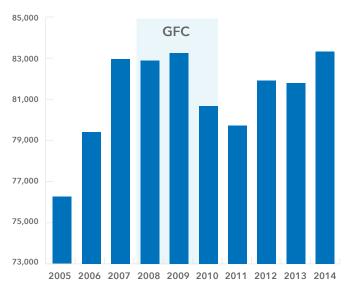
a technical recession where GDP is down, but other indicators do not show a slowdown. Others think tourism will come back enough to avoid a recession completely.

In Hamilton, the effects of the GFC on employment and what was being produced started to be seen in data from 2009/10 onwards, with many industries reaching peak production in 2008 and peak employment in 2009. Coming off this peak, Hamilton's economy reached its lowest point in 2010 for GDP (down 2.5%) and in 2011 for employment (down 4.3%). GDP rebounded quickly in 2011 and exceeded 2008 levels by 2012. Employment numbers took a little bit longer to regain lost ground, returning to peak levels by 2014.

Three of Hamilton's key sectors saw little to no negative effects on GDP or job numbers during the GFC or in the years after. Healthcare and social assistance; education and training; owner-occupied property operation; and public administration and safety all fared well during the GFC. Professional, scientific and technical services only experienced a brief dip in GDP and job numbers. These sectors remain key parts of our economy and are again likely to be relatively unaffected by an economic slowdown.

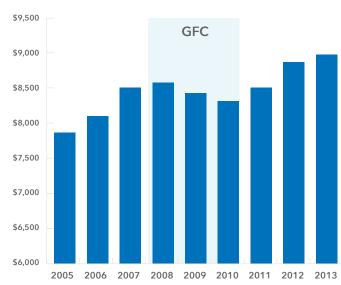
Hamilton's job count before and after the GFC

Source: Infometrics



Hamilton's GDP before and after the GFC

Source: Infometrics



2022 so far

Riding on the coat-tails of 2021, Hamilton has seen higher levels of non-residential consenting in the first seven months than it did in the entirety of 2021 or 2020. The momentum at the Ruakura Superhub is building with a strong pipeline of development expected in the coming years.

The housing market and residential consenting have slowed as prices have declined and credit is increasingly harder to secure. While we expect 2022 to be a bit slower than the record-breaking level seen in 2021, results from the first half of the year suggest that it should remain well above historical averages.

The number of consents lodged for new dwellings remains at record levels, well over 1600, and there continues to be more than 1600 dwellings that have been granted but not yet completed (so either under construction or yet to start) indicating that there is still a significant pipeline of work in the residential construction sector. The story of completed dwellings is not as positive. Since 2019, the Hamilton construction sector has completed an average of about 1380 dwellings per year. As material shortages, supply chain issues and labour shortages hit home, the number of completed dwellings dropped 17%, from 1579 in 2020/21 to 1354 in 2021/22.

Data for the June 2022 quarter show the Hamilton economy has slowed significantly. According to Infometrics, GDP dropped into negative growth (-0.4%), consumer spending was down 1.6%, guest nights were down 31% and house sales fell 30%. On the positive side, the number of Hamiltonians employed increased by 4.4%, ahead of 3.2% seen nationally.

Spending data for the year to June 2022 makes for sober reading. Despite inflation sitting at 7.3%, spending fell 1.6% year on year. Transaction numbers were down 10% as people made fewer transactions and probably spent more on less because prices were higher for the same basic goods and services.

For more information on Hamilton's economy and growth, check out our economic reports and online dashboards at hamilton.govt.nz/economicdata

Consenting

The number of dwellings granted began to taper off at the beginning of 2022. The graph on page 6 shows the number of dwellings lodged, granted, under construction and completed. This graph shows that there were regular up and down cycles in consenting and there is generally a 12 to 18 month lag between the trends seen in the dwellings granted line and the dwellings completed line (code compliance certificate or CCC issued).

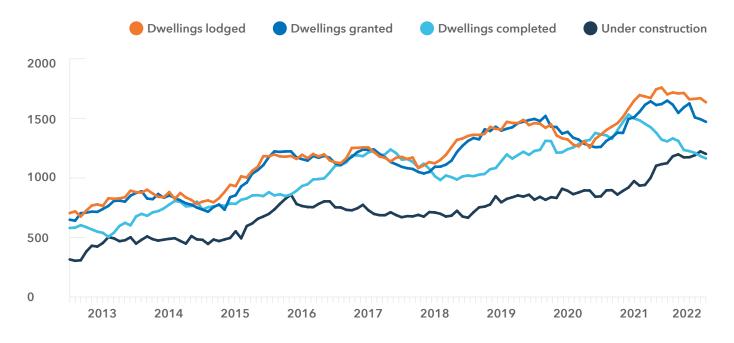
At the time of writing, the dwellings completed line has been trending down since September 2021, in line with the dwellings granted line throughout 2020. High demand coupled with material delays and labour shortages have also caused an increase in the number of dwellings under construction at any given time. While builders waited for components or materials or work to be done on one site, they started other projects. As 2021 progressed, there were more unfinished projects across the city. Compared to the middle of last year, on average there have been 30% more dwellings under construction in 2022, and 50% more than in 2019.

As supply chains rebalance, we would expect the backlog of homes under construction to clear, increasing completed dwelling numbers and dropping the number of dwellings under construction to a more "normal" range of 800 to 1000 at any given time.

Based on the dwellings granted trend from the start of 2021, we would expect to see the completed dwellings line begin to turn and head upwards again, although the increase may be a lot flatter given the delays seen in the sector at the moment. The other noteworthy trend is the historically high number of consents still being lodged at this time. This is another indicator that construction in Hamilton is not likely to fall too heavily in the next 12 to 18 months.

Residential construction activity across Hamilton

Source: Hamilton City Council



An interesting trend that emerged in the latter half of 2021 is the difference between infill and greenfield areas. The following two graphs show that while activity in infill areas has remained strong and at record levels throughout 2022, activity in greenfield areas has fallen 30% from its peak in July 2021. We suspect there are several factors at play here, but price is definitely key. Two thirds of greenfield development has been standalone dwellings which are more likely to be on larger sections, in highly desirable suburbs, and have a greater building footprint, making them more expensive.

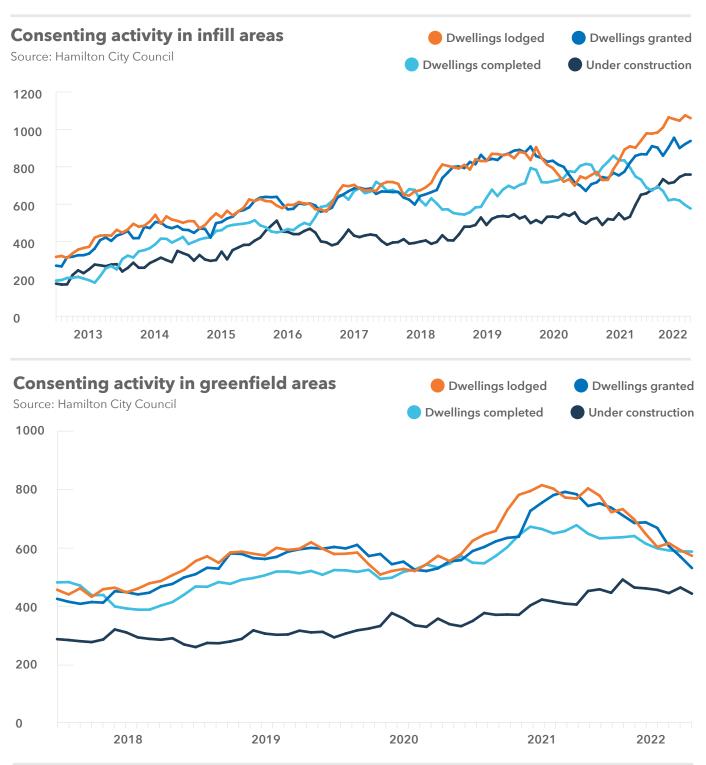
The new build equation has become more challenging over the past 12 months with the increased costs of building materials, soaring land prices and the increased credit requirements for bank loans limiting the amount people can borrow. Since the beginning of 2022, falling house prices have added another cooling factor to the mix. The sector has reported a significant slowdown in enquiries in greenfield

areas. Until this equation rebalances, and the relative cost of a new build comes down, there will be leaner times for the sector. We expect this to eventually flow through to lower land prices as this is where some price flexibility remains in the greenfield areas. All things being equal, if land prices come down, the cost of a house and land package will likely come down too, making it a better proposition to buyers.

In Hamilton's greenfield areas, the land is usually developed by the developer who owns the land. Sections are then sold to building companies who then on-sell them as house and land packages to the end buyer. Standalone dwellings in greenfield areas are usually consented once under agreement. For the first time in nearly five years, there are sections being sold on the open market rather than just as packages through building companies. This is another indicator that development in the greenfield areas is slowing.

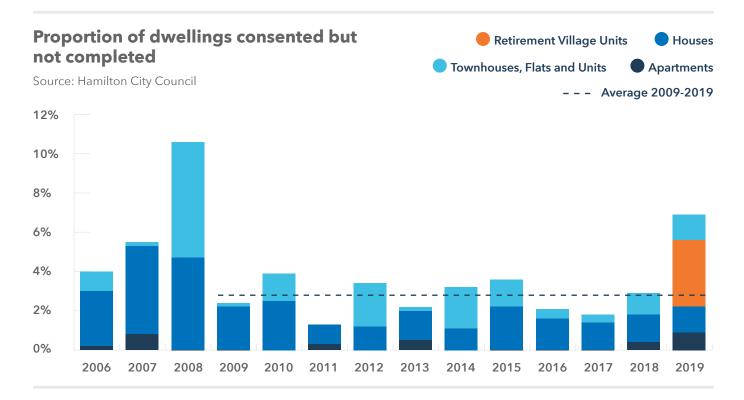
Infill development tends to be more ad hoc with a large number of smaller developers buying existing sections, demolishing the existing building and replacing it with multiple dwellings. In many parts of the city this takes the form of two duplex dwellings per 400sqm of land, or commonly four new dwellings per site. When larger or adjoining sites are acquired, or if the development is in areas of higher density like the central city or Frankton, multi-storey townhouses and higher density builds tend to occur.

Because infill housing tends to be attached dwellings on smaller sections (often around 200sqm), the total cost of a new home tends to be lower. The infill area has not escaped the increased costs of construction or land prices but it has benefited from having a more competitive price point and being more attractive to investors than new builds in greenfield areas.





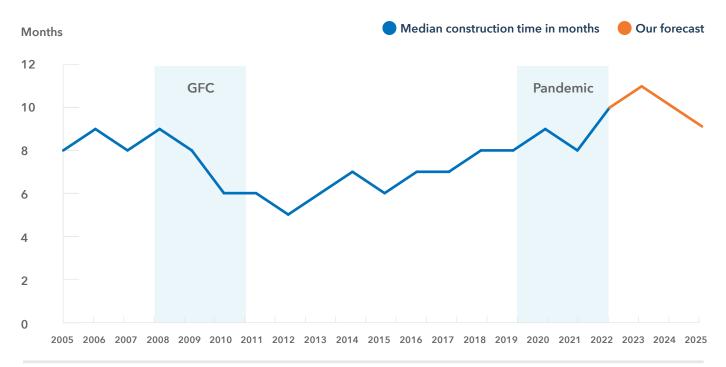
The graph below shows the proportion of dwellings consented but not completed in Hamilton since 2006. This is when a consent is granted for a new dwelling but the home is never completed to meet code compliance. In 2008, as the GFC was in full swing, the incompletion rate spiked to nearly 11%. It quickly fell in subsequent years and has averaged about 3% ever since. Looking at Hamilton's consenting pipeline, even if 10-11% of consented dwellings were not completed, there would still be a large pipeline of work with a crude estimate of about 1450 dwellings completed based on the current consents lodged. It is also worth noting that in 2008 attached dwellings were only a small proportion of all new dwellings in the city, so the larger proportion of incompletions is probably blown out by this.



Time to complete a dwelling has increased by about two months since the beginning of the pandemic. Initially it was a nationwide lockdown that added a month to the completion time. Then, in 2021, supply chain issues, material shortages and labour shortages at both the construction and consenting phases, all started to add to build times. We expect to see this peak in 2023 but then start to come down as demand on the construction sector eases to more manageable levels. This trend was also seen during the GFC as more resources became available.

Months taken to complete a dwelling, from consent granted to code compliance issued

Source: Hamilton City Council



Our forecasts

Our team has built models to forecast the number of new dwellings consented and completed in the short and medium term. Long-term projections use our existing projections from the National Institute of Demographic and Economic Analysis (NIDEA). The models were built using several variables including historical consenting and completion trends, population, GDP, house prices, bank bill rates and unemployment. With the exception of the bank bill rate, all of the variables are at the Hamilton level.

For the forecasts for GDP and house prices, the models were developed by using inflation, bank bill rates, national GDP and Treasury's house price index as key variables.

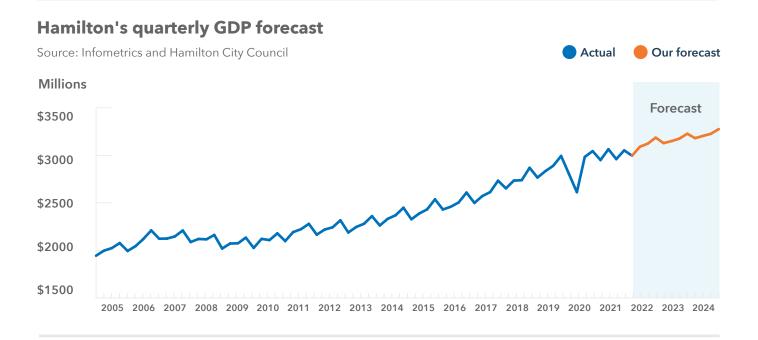
As with all forecasts and models, there is a degree of uncertainty. Our forecasts use the best information available at the time, however, the past three years have taught us that even the best projections can be turned on their head by an unexpected event like a pandemic or an invasion.

Gross Domestic Product (GDP)

The following graph shows the actual GDP for Hamilton, as generated by Infometrics, as well as the forecast of quarterly GDP through to the end of 2024. The GDP generated by the model for 2018 to 2021 is also shown for comparison.

The forecast shows that the average annual GDP growth rate in the next few years is about 2%, below the levels seen pre-pandemic of about 3.6% between 2012 and 2019. Forecast GDP growth is slowed by supply-side challenges, like the shortage of labour and supply chain issues as well as the deflationary pressure from RBNZ increasing the cash rate.

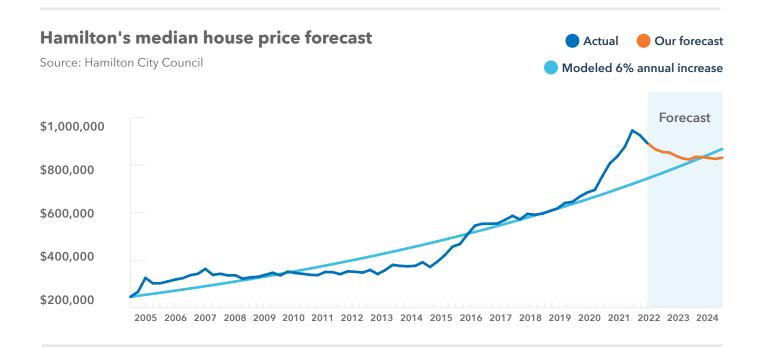
Treasury has forecast an average annual growth rate of 2.2% for New Zealand as a whole. Historically, Hamilton's GDP growth rate tends to be above the national growth rate (especially during the Covid-19 pandemic), so this is reflected in the forecast seen here. We expect Hamilton's economy to continue to be resilient and supported by its diverse industries.



House Price

House price is another key variable used in our forecasts. The demand for housing and house price has a strong link. The following graph shows that we expect median house prices to decline further in the coming months and remain at that level for the rest of the forecast period. This is similar to what happened following the GFC. There was a drop in prices initially followed by a five-year period of little to no change in house prices.

We also looked at the average yearly growth rate for house prices over the long-term. The light blue trend line on the graph shows what house prices would look like if prices followed the trend of a 6% rise each year. This line suggests that what we are seeing in the market now is a correction following a period of unprecedented growth. The line also shows that while there was a stagnant period following the GFC, prices reclaimed the lost growth reasonably quickly once the market picked up again.



Construction Outlook

The construction sector has reported an extremely pessimistic outlook for work and profits. The Ministry of Business, Innovation and Employment's National Construction Pipeline Report 2022 shows a decline in consenting but not to the catastrophic levels that the outlook surveys would suggest. Nationally, the report suggests consenting will fall to an average of about 37,000 consents per year until 2027. While this is well down on 2021 consenting records (nearly 49,000), it is more in line with the estimated capacity of the construction sector (35,000 dwellings per year). At its peak in 2020/21, New Zealand saw 36,400 new dwellings completed (code compliance certificate issued) in a 12-month period. It is estimated that about 97% of dwellings consented are eventually built, although Auckland data suggests that only 88% are completed within two years of the consent being issued.

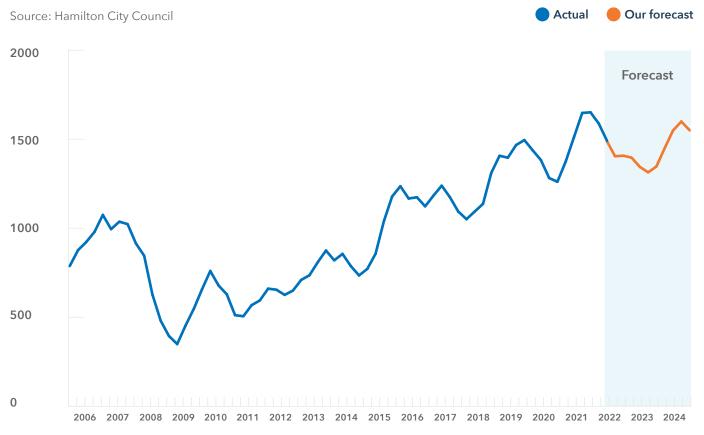
Forecast number of dwellings granted

Hamilton City Council has built its own dwelling projection model to forecast future consenting activity. We use this to plan for what our community will need in the future. Our model uses economic data and previous consenting patterns in its forecast, including population, the bank bill rate, GDP, house prices and the unemployment rate. All these indicators have shown a strong relationship with consenting trends in the past.

Our forecast suggests dwelling consents will fall to around 1400 dwellings across the next 12 months, falling further in late 2023 before picking up again from the end of 2023 and into 2024. A fall of 21% is forecast in the 12-month rolling totals from the peak in the second guarter of 2021 to the lowest point in guarter three of 2023. The forecast suggests that residential consenting will return to similar levels to 2021/22 from mid-2024 onwards.

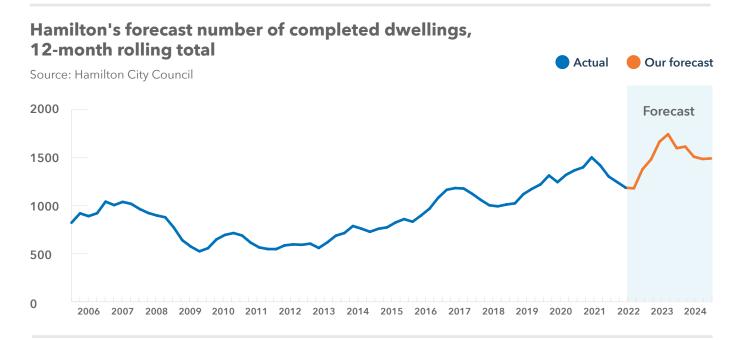


Hamilton's forecast number of dwellings consented, 12-month rolling total



Forecast number of dwellings completed

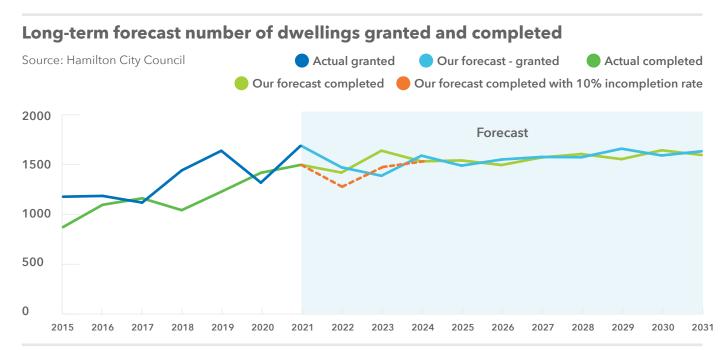
Our forecast for the number of new dwellings completed shows the number increasing later in 2022 and in 2023 to reflect the increased number of consents granted in 2021. Our completion times suggest that most new dwellings are taking about a year to complete, although this has been pushed out by labour and material shortages in 2021 and 2022.



Long-term consenting forecasts

The following graph shows a long-term forecast for both dwellings granted (light blue line) and dwellings completed (light green line). We have also considered what the forecast completions might look like if we saw an increase in the incompletion rate similar to what occurred during the GFC.

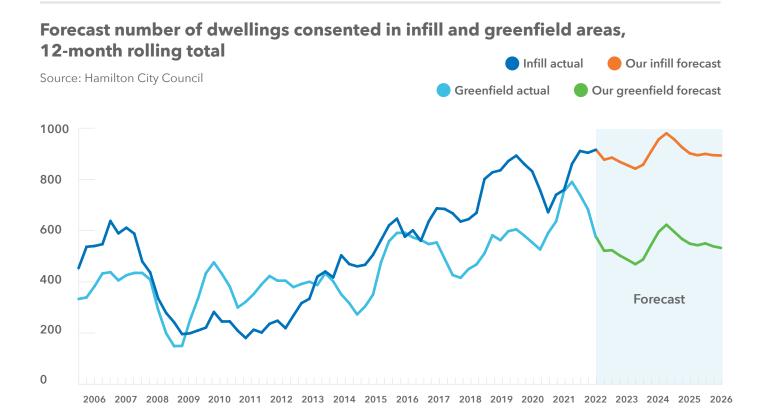
Our forecast shows that there is an expected drop off in both consents granted (as discussed previously) and dwellings completed in 2022, increasing again in 2023 and holding at around 1500 to 1600 new completed dwellings per year through to 2031. Should we see incompletions increase to 10% as seen in 2008, we may see the number of completed dwellings fall to just under 1300 in 2022 and just under 1500 in 2023 (orange dotted line).



Forecast number of dwellings consented across greenfield and infill areas

The following graph shows the forecast number of dwellings consented across our greenfield and infill areas. Historically the trends seen in the infill area have reflected those seen across the city. The infill forecast is based on historical infill consenting trends as well as other variables including inflation, the bank bill rate, Hamilton's GDP, house prices and the forecast for the total number of dwellings consented.

The greenfield forecast uses the forecast total number of dwellings consented and subtracts the number consenting in the infill. The greenfield forecast is the remaining number of dwellings. The trends in both infill and greenfield areas are therefore similar. We are looking at future improvements to this model that consider the economic effects that drive geographic choice.



Forecast number of dwellings consented by type

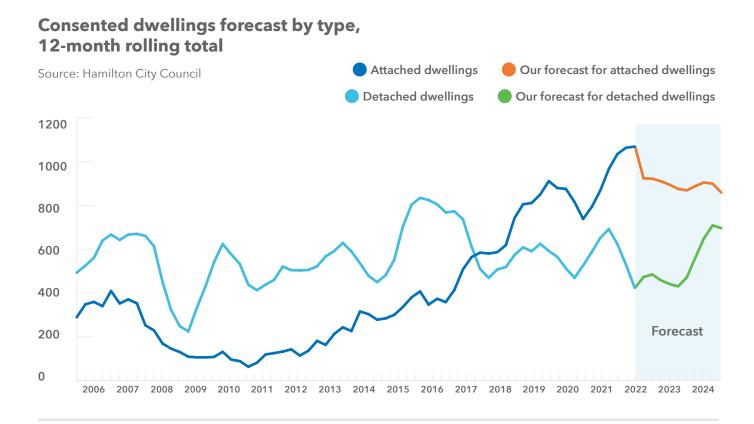
We also modelled the number of dwellings by type. Attached dwellings include duplexes, townhouses and apartments. Detached dwellings are standalone houses with no common walls with another dwelling. Attached dwellings are most common in the infill areas as there is little financial incentive to remove an existing dwelling and replace it with one or two standalone dwellings (though it does happen). Standalone dwellings are most common in greenfield areas.

Over time duplexes, townhouses and apartments have become more common in Hamilton. Since 2017, the majority of new dwellings consented have been attached. With the introduction of new intensification rules and changes to our District Plan, we expect this trend to continue. Greenfield areas will continue to be where most standalone dwellings are built, but we will also see increased numbers of townhouses, duplexes and apartment developments in these areas too.

The forecast uses the correlation between dwellings consented and other variables such as GDP, house price, consenting forecasts, the bank bill rate and inflation. Council is currently working through Plan Change 12 to implement central government's new intensification requirements. This could drive higher levels of consenting than shown in our forecasts.

As at the end of June 2022, attached dwellings were at a historical high of 1060 new dwellings. Our forecast assumes that there will be a drop in demand alongside forecast drops in house prices and increases in interest rates. At its lowest point in September 2023, the forecast shows consenting activity about 17% lower than current levels for attached dwellings but well above pre-pandemic levels.

Detached or standalone dwellings peaked at the end of September 2021. Since the peak, consenting has fallen 38% to 427 dwellings, the lowest it's been since 2011. Our forecast suggests that it will stay around this level for the next 12 to 18 months.



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