

R4 Strategic Greenfield Report

Perth North East Greenfield Market

Assessment of Perth North East Greenfield Development Capacity

December 2019 Publication

Executive Summary of Supply & Competition

All of Perth Greenfield Market Outlook

Perth as a city has traditionally relied upon Greenfield market to deliver or respond to 68 percent of total metro housing demand. This supply role has not diminished over recent time and is unlikely to reduce over the foreseeable future.

The Perth Greenfield market averaged 382 lot sales per month for the Q4-19 quarter which represents 71% of total expected demand for land; 535 lots per month.

The current market setting is classified as being in a “Clearance” mode; Activity is below demand levels while industry capacity is not being fully utilised. It is expected that the market setting for Perth Greenfield will change over the coming 24 months; when land sales begin to equal demand.

This expected improvement in total activity is based on a slow but positive improvement in the two major drivers of population change. Forecast Net Overseas Migration is expected to lift to 4,488 persons per quarter; up from 3,237 persons per quarter, while Net Interstate Migration is expected to reduce the net loss from 2,063 to 1,459 persons per quarter.

The net result from this change in population is to lift demand for new land from current levels [400's] to an average of 614 lots per month.

Perth North East Greenfield Market Assessment

The Perth Greenfield market relies upon five major local Greenfield markets; one of those being the North East Greenfield sub market. The North East Greenfield market has demonstrated over time to be a desirable location for those people wanting to call Perth home.

It currently accounts for 32 percent of total land activity and has averaged 121 lot sales per month for the December 2019 quarter. Unlike the balance of the Perth Greenfield market the North East is currently selling more land than estimated levels of underlying demand.

Perth Greenfield Market – R4 Strategic Greenfield Report

The forecast demand for new land across the North East is expected to average 139 lots per month; up on the long term sales average of 111 lots per month.

Perth North East Greenfield Development Capacity

With stated demand being 139 lots per month it is therefore important to understand if there is sufficient local Greenfield Development Capacity [GDC] to effectively address this level of supply. Where there is insufficient GDC the market has the potential to move into imbalance. This imbalance will manifest itself through pricing. Insufficient GDC will result in upward pressure on land prices and deterioration in housing affordability.

GDC is directly linked to the type and number of trading land estates within a market. For a market to be in balance there needs to be the capacity to produce two lots for every single lot in demand i.e. a 2:1 ratio.

The North East market currently has 36 land estates trading with a total development capacity of 333 lots per month.

The GDC ratio is currently 2.6:1 which means that the local market is considered “competitive”. This current status has meant that local land prices are considered “fair value” at \$238,000 per lot. The level of competition between the 36 land estates means that land pricing has remained in line with the wider established housing markets price points.

Perth North East Greenfield Development Capacity Changing

The GDC ratio is always changing due to the fact that land estates are ending and new ones are coming online. The important consideration is the net effect on local competition which in turn impacts pricing and supply.

For a nominated Greenfield market to remain an effective tool for State planning there needs to be an awareness of the changing capability.

It is estimated that of the current 36 land estates operating now, without any new replacement estates over the coming 12 months, the GDC ratio will fall back to 1.6:1; which would mean that the level of competition between estates would be classified as “weak”.

Perth Greenfield Market – R4 Strategic Greenfield Report

Perth North East Greenfield & Affordability

A low rate of replacement estates or a delay in the timing of replacement estates would place upward pressure on prices.

The current median lot price of \$238,000 is 11% above the metro wide median land price of \$215,000. The North East sub market commands the highest lot price of all Greenfield markets across Perth. This premium status has been brought about by a high level of demand combined with a relatively lower count of trading estates over time.

Perth North East Greenfield – Micro Estates

The North East market has averaged 1 new land estate per quarter for the past 10 years; 70% of these estates have been “micro” estates[less than 250 lots]. Considering that close to 60% of all current land estates are micro estates, this heightens the need to ensure that the number and frequency of replacement estates is increased.

Generally, a more sustainable Greenfield market is defined by a good proportion of larger land estates that have the capacity to trade over a longer time frame. A market which relies more on smaller land estates will need to ensure that supporting amenity is delivered off site and that there is sufficient resources to deal with the greater level of work associated with planning and delivering new estates.

Perth North East Greenfield – Where Capacity will be lost

Over the next two years the Ellenbrook precinct which currently has a capacity of 110 lots per month will be reduced to 59 lots per month; a 45% reduction in core capacity. Ellenbrook is the main source of new land supply for the sub market.

The Middle precinct which represents 15% of current total capacity will reduce by 17% over the next 2 years.

The Bullsbrook precinct will reduce by 17% over the next 2 years and Dayton will reduce by 25%

Perth Greenfield Market – R4 Strategic Greenfield Report

Perth North East Greenfield – Replacement Supply

The North East sub market has nominated future supply. The important consideration regarding this supply is the likely timing of delivery with respect to the rundown of current land estates.

There are estimated to be 24,100 lots nominated as future supply across the whole corridor. These 24,100 lots are estimated to be taken to market by 31 land estates ranging in scale. They would enter the market from 2020 through to 2035 with 80% of the estates likely to be small in scale.

The impact of these replacement estates on total levels of competition would result in the market peaking at 25 trading estates by 2029 and then falling back to 11 by 2034. The market to date has peaked at 36 trading estates [2019]. The planned introduction of future supply comprising of 31 estates is unlikely to see the local market set a new record in terms of number of active estates at any point in time.

Perth North East Greenfield – Replacement Supply and Capacity

The ability of the existing estates; pre any new ones, in dealing with forecast demand of 139 lots per month will quickly fall away post close of 2019. It is clear there needs to be new estates added to the local market in order to keep pricing in check.

Future supply is likely to be represented by 31 land estates of different scales. These future estates will increase the capacity of the local market to deal with planned levels of demand. At a headline level the planned introduction of new estates over the next 15 years will result in a peak Greenfield Development Capacity ratio of 2.7:1. This would be a good outcome for the market and for those looking to live in the North East.

The modelled introduction of the future supply [report attachment], is unlikely to see the GDC ratio stay above the benchmark ratio of 2:1. Based on the projected roll out of new supply over the next 15 years, the market is expected to have competition issues for 9 of the 15 years.

Finally, there is a real possibility that of the planned future supply, not all of the supply; especially supply from fragmented ownership, will not come to market. If 17% of future supply fails to come to market then local development capacity will be below the target range of 2:1 for most of the next 15 years.

Perth North East Greenfield – Key Finding

The North East Greenfield market since 2008 has delivered 18 percent of all new land sales across Metro Perth. Due to its popularity and relative low count of active land estates it has commanded a higher median lot price than all other metro Greenfield markets. Currently it has the lowest level of competition; when compared to the other major local markets, and is also the most at risk in terms of a further erosion of industry capability.

The North East market needs to ensure that the timing and the type of replacement land estates responds to the need to preserve a competitive environment. A balanced market will place downward pressure on land prices which in turn will assist with local housing affordability across the North East sub market.



R4 - Strategic Greenfield Market Report - Local Market

Product Code GMD



National Land Survey



The R4 National Greenfield Demand & Supply report brings together underlying demand, new land supply and headline pricing in one concise report. The objective is to clearly outline the historic, current and forward relationship between underlying demand, industry capacity to supply and likely impact on headline land prices.

The report is based on Research4's own in-house economic modelling combined with Research4's proprietary new land database. This report is used by businesses that are looking to understand the macro demand and supply setting; is underlying demand being met? Is there enough development capacity across the market to respond to underlying demand? What is the likely impact on the median lot price for the market?

The report focuses on historic, current and forecast activity.

Disclaimer : The information provided is purely for your reference only. Research4 do not represent the appropriateness of the information for your purpose. Research4 will not be responsible for any loss or damage that you suffer as a result of you relying on any part of this report.

This report is intended for internal use only. This copy must not be made available or copied for the behalf of others.

Colin Keane
Director of Research4 Pty Ltd

Mobile 0418342988
Email colin.keane@researchfour.com

www.researchfour.com



Introduction & Index



		PAGE
Section 1	0	
	Metro Market Cycle	1
	Metro Market Setting	2
	Drivers of Demand for Greenfield	5
	Total Metro Housing Demand	3
	Greenfield Supply Role	3
	Greenfield Demand & Sales	4
Section 2	Greenfield Development Capacity	
	Greenfield Development Capacity	5
	Run Down of Greenfield Capacity	6
	Assessing Impact of Greenfield Development Capacity	7
Section 3	Actual & Benchmark Land Prices	
	Median Lot Price	8
	Median Lot Price & Fair Value	10
	Forecasting New Land Prices- Scenario 1	11
	Forecasting New Land Prices- Scenario 2	12
	Forecasting New Land Prices- Scenario 3	13
	Summary of Greenfield Market Performance	14
Section 4	Key Supporting Charts	
	Return Rate	15
	Production Clearance Rate	16
	Stock & Production Profile	17

Section 1

Greenfield Market Setting & Demand



Metro & Sub Market - Market Cycle - Current Overview

Lots per Month

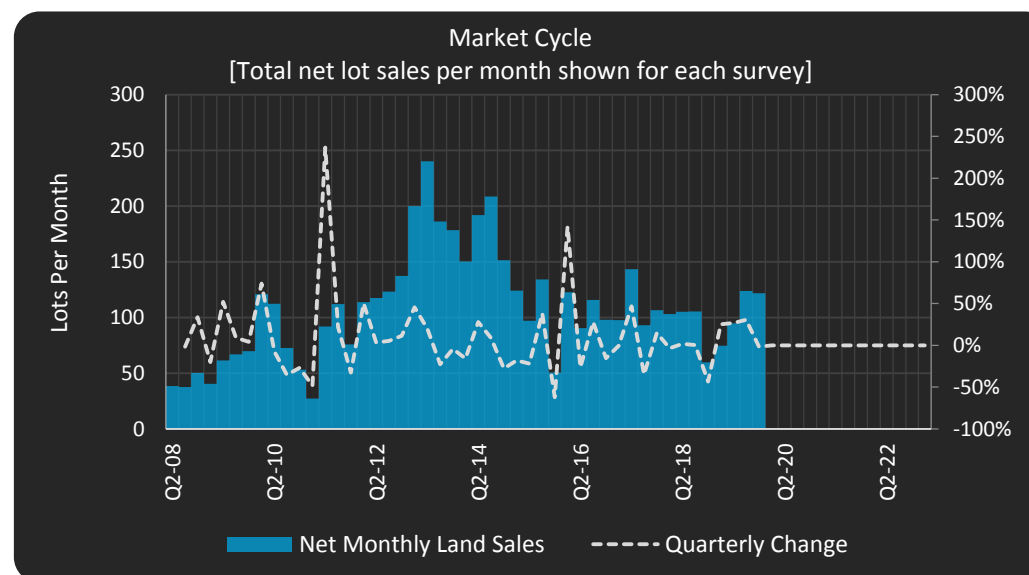
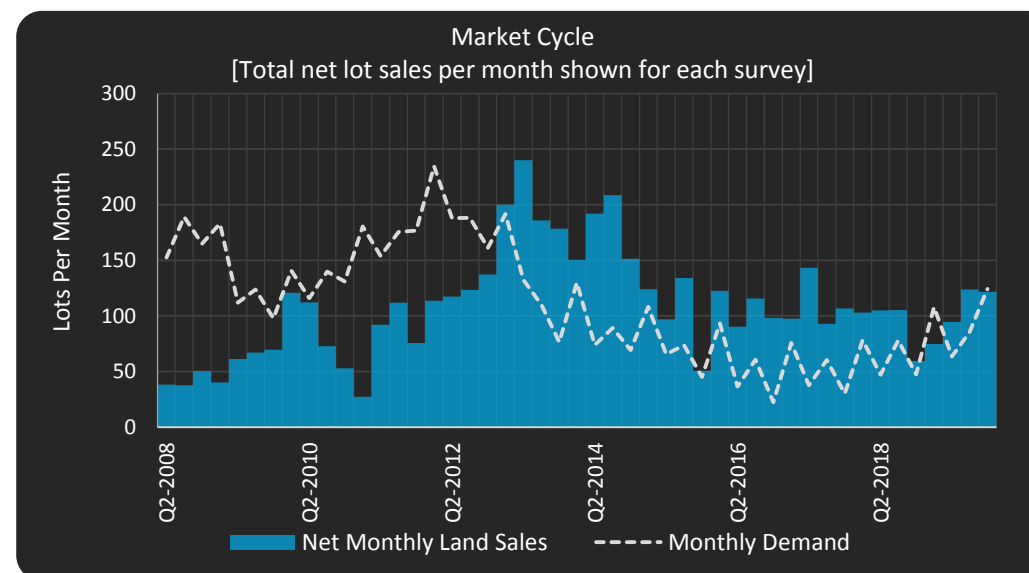
Q4-19	Metro	Sub Market	%
Current Market Cycle	382	121	32%
Q3-19	447	123	28%
Q4-18	327	59	18%

	Metro	Sub Market	%
Current Market Demand	535	124	23%
Q3-19	605	85	14%
Q4-18	336	47	14%

	Metro	Sub Market	
Current % of Demand	71.4%	97.6%	
Q3-19	73.9%	144.7%	
Q4-18	97.3%	125.5%	

Qtr	Sales pcm	Change*	Demand pcm	%#
Q1-17	98	0%	76	129%
Q2-17	143	47%	38	381%
Q3-17	93	-35%	60	154%
Q4-17	107	15%	30	352%
Q1-18	103	-3%	78	132%
Q2-18	105	2%	47	223%
Q3-18	105	0%	78	135%
Q4-18	60	-43%	47	126%
Q1-19	75	25%	108	69%
Q2-19	95	27%	64	149%
Q3-19	124	31%	85	145%
Q4-19	122	-2%	124	98%

* Quarterly change in total net lot sales '# net quarterly lot sale as a percentage of demand for land



Sub Market - Market Setting - Current Overview

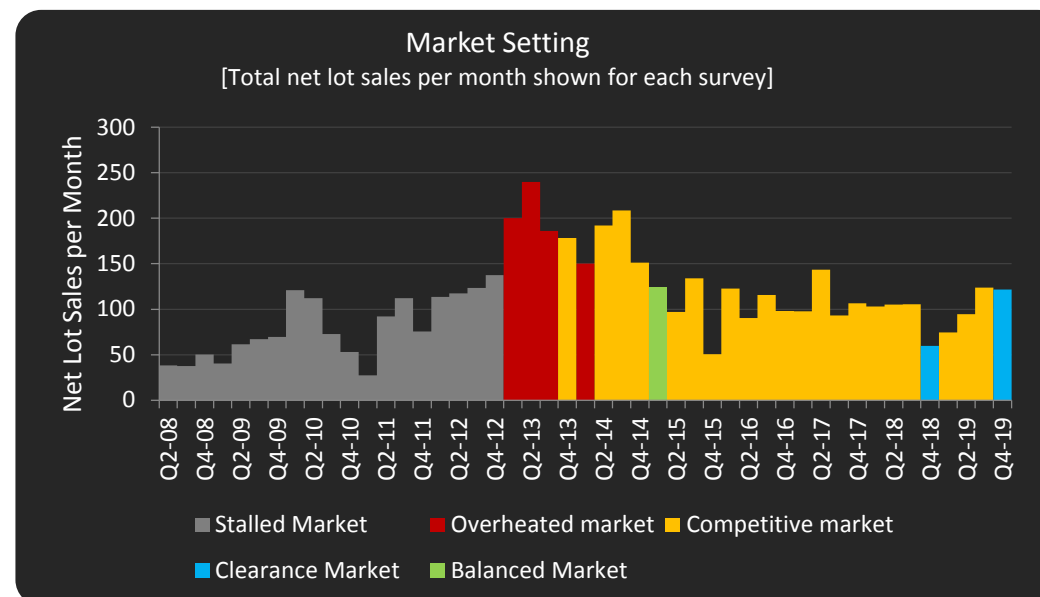
Q4-19

Current Market Setting	Clearance Market
Q3-19	Competitive market
Q4-18	Clearance Market

Current Activity: Demand	0.97 : 1	Sales & Demand Balanced
Q3-19	1.44 : 1	Sales above demand
Q4-18	1.25 : 1	Sales above demand

Current GDC	2.6 : 1	Excess Capacity
Q3-19	3.8 : 1	Excess Capacity
Q4-18	6 : 1	Excess Capacity

Qtr	Market Setting	Sales & Demand
Q1-17	Competitive market	Sales & Demand Balanced
Q2-17	Competitive market	Sales above demand
Q3-17	Competitive market	Sales & Demand Balanced
Q4-17	Competitive market	Sales above demand
Q1-18	Competitive market	Sales below demand
Q2-18	Competitive market	Sales above demand
Q3-18	Competitive market	Sales & Demand Balanced
Q4-18	Clearance Market	Sales & Demand Balanced
Q1-19	Competitive market	Sales below demand
Q2-19	Competitive market	Sales & Demand Balanced
Q3-19	Competitive market	Sales below demand
Q4-19	Clearance Market	Sales below demand



Total Metro Housing Demand

This chart shows the total number of dwellings required to address population based demand.

The chart represents total dwellings demand per month; dwelling demand for all housing types, not just land.

Forecast has been based on projected population numbers across the three major components of change.

Total Housing Demand	
Long Term Average	1,184
Recent Average	681
Recent / LTA	-42%
Forecast	905
Forecast /LTA	-24%
Forecast /Recent	33%

demand for land per month

Local Market Greenfield Supply Role

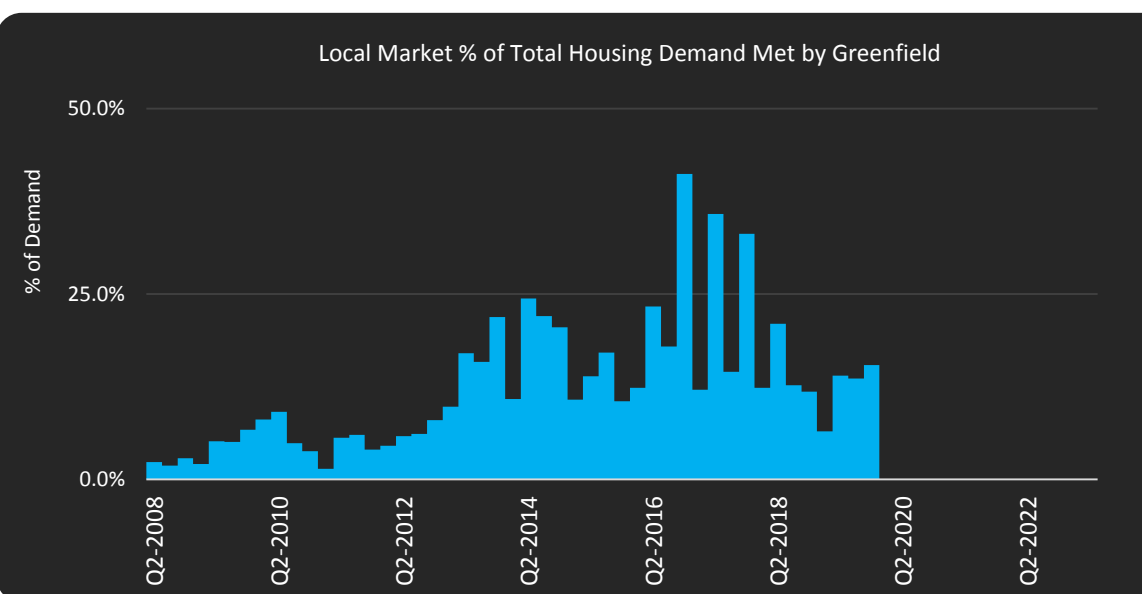
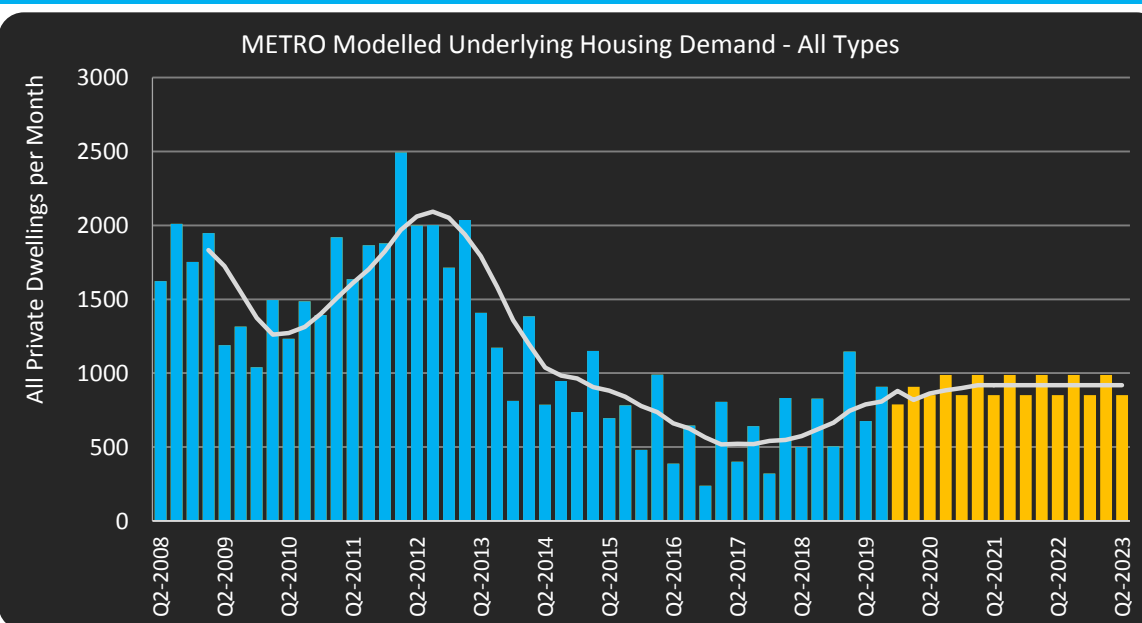
The production of a demand figure for Greenfield product is first based on assessing the total level of housing demand for the whole of the market. The Greenfield sector has a supply role; however it is not the only supply solution for a market. Other supply solutions include urban infill and higher density product.

It is therefore important to understand the likely share of total housing demand the Greenfield section will respond too. This figure will then form the basis for estimating forecast Greenfield demand.

Supply Role- Local Sub Market

Long Term Average	9.4%
Recent Average	16%
Recent / LTA	6%
Forecast	16%
Forecast /LTA	6%
Forecast /Recent	0.0%

demand for land per month



Greenfield Demand & Actual Sales

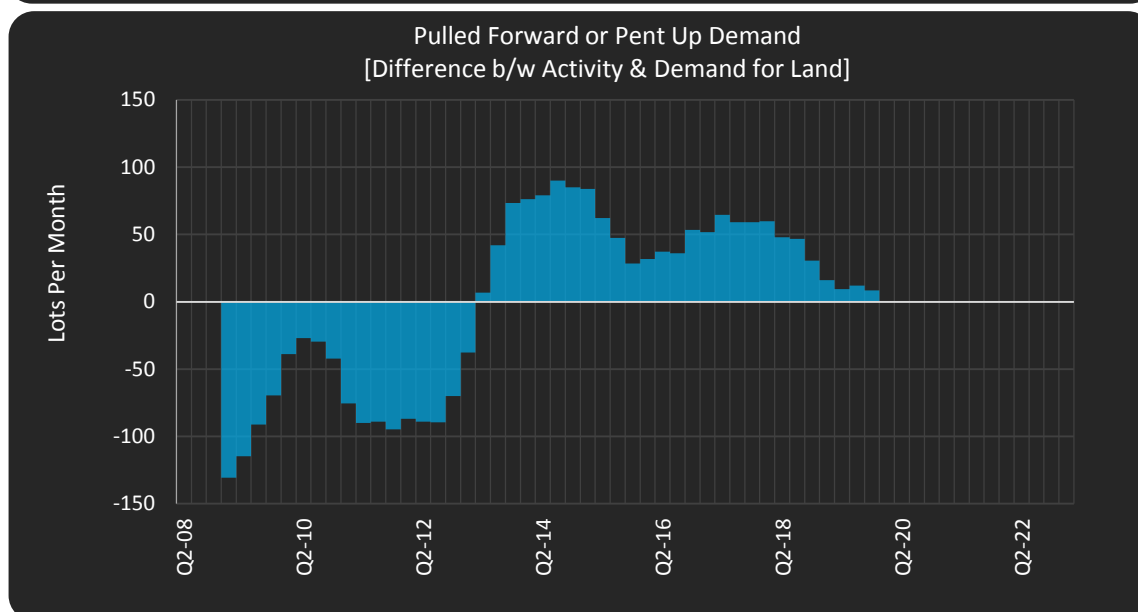
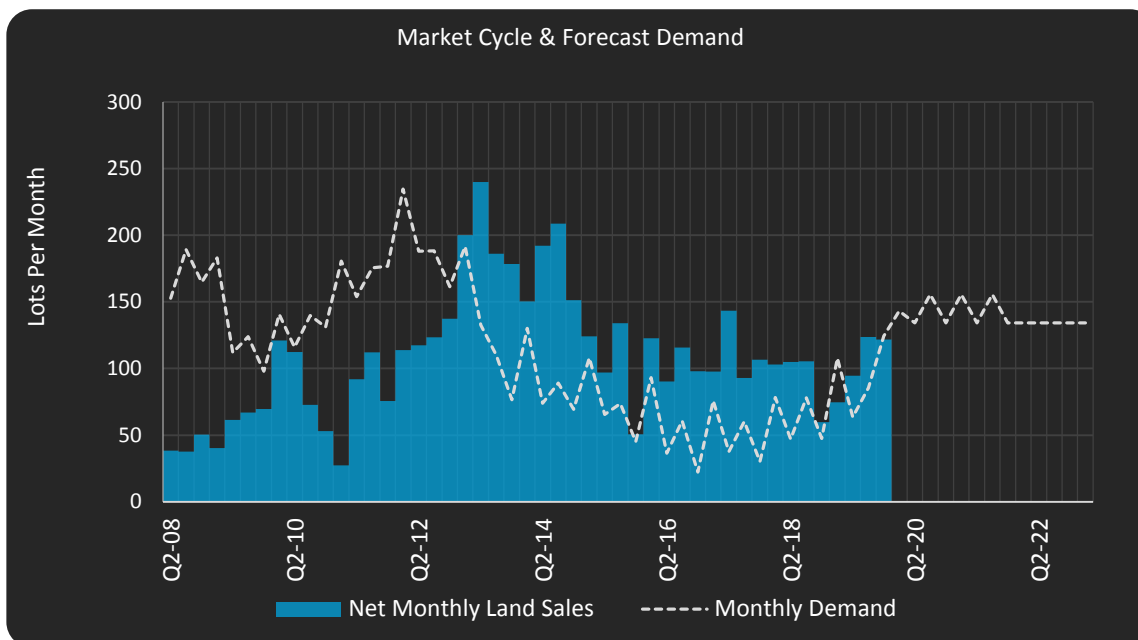
The level of demand for new land is based on the “supply role” or traditional share of total metro housing demand addressed via Greenfield market.

This chart shows both the actual net lot sales per month for the LOCAL market [blue bars] and the modelled level of demand for new land per month [white line].

Greenfield Demand

Long Term Average	111
Recent Average	64
Recent / LTA	-42%
Forecast	139
Forecast /LTA	25%
Forecast /Recent	117%
Pulled Forward +ve / Pent Up -ve	8

Qtr	Forecast Demand	Annualised
Q4-19	124	
Q1-20	143	
Q2-20	134	
Q3-20	156	1,671
Q4-20	134	1,701
Q1-21	156	1,738
Q2-21	134	1,738
Q3-21	156	1,738
Q4-21	134	1,738
Q1-22	134	1,674
Q2-22	134	1,674



Section 2

Greenfield Development Capacity



National Land Survey

Greenfield Development Capacity

The performance of any Greenfield market is influenced by the number and type of residential land estates operating across a market.

The number and type of land estates operating will impact the headline Development Capacity of the industry sector i.e. the total number of lots which can be produced at any given time.

A balanced Greenfield market is one where the industry capacity is able to effectively respond to modelled underlying demand for new land.

An effective response is one where the delivery of new land to the end user is in a timely and affordable fashion. Where a sub market has insufficient Development Capacity, there is an increased risk of demand going un-met and for land prices to increase. This scenario provides residential developers with a commercial opportunity.

Where Greenfield Development Capacity exceeds underlying demand, there is greater competition between estates which results in downward pressure on land prices and lower sale rates for individual land estates.

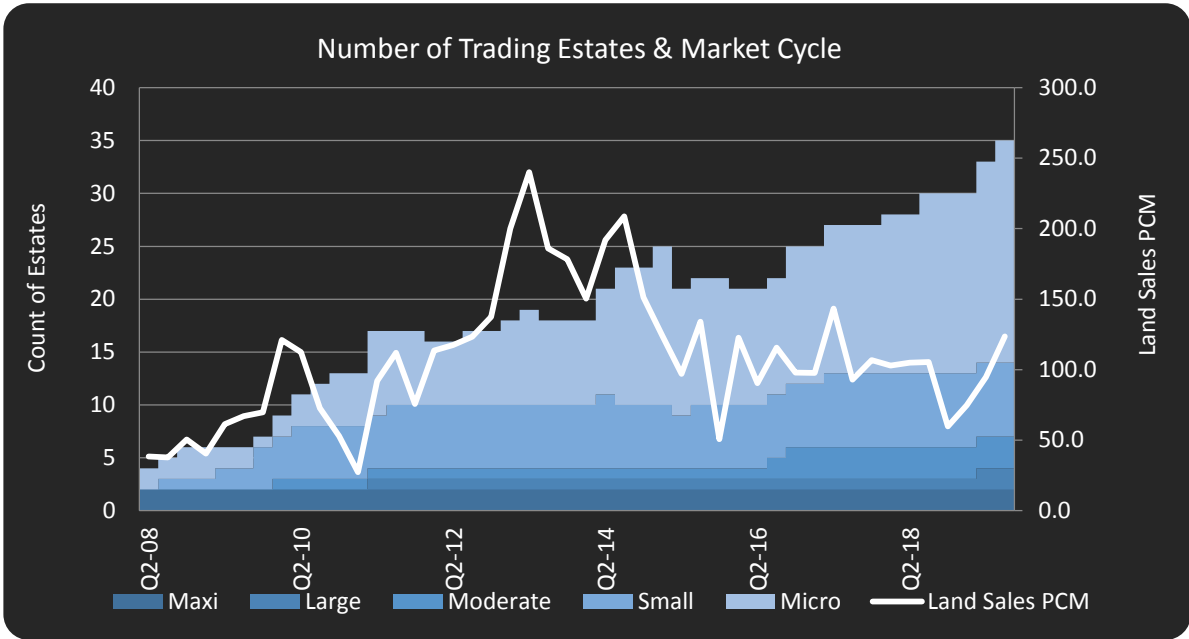
Number and Type of Land Estates

The level of Greenfield Development Capacity is always changing; change being driven by existing estates coming to an end and new estates entering the market. The entry of new estates is also defined by headline planning and availability of zoned land.

The size of a land estate influences the total Development Capacity. Smaller land estates tend to produce less than larger estates.

Forecasting the type and timing of new land estates cannot be accurately done; however using existing and historic data, forward estimates can be derived.

This section will assess at a metro level the changing profile of Greenfield Development Capacity.



	Group 1	Group 2	Group 3	Group 4	Group 5	Total
Scale [how many dwellings per estate type]	2500+	1500-2500	750-1500	250-750	<250	
Long Term Average [Estate count per quarter]	2	1	1	5	9	19
Average Quarterly Net Change in estate count	0.0	0.0	0.1	0.1	0.4	0.7
Current Estate Count	2	2	3	7	22	36
Prior Quarter Estate Count	2	2	3	7	21	35
Quarterly Net Change in Estate Count	0.0	0.0	0.0	0.0	1.0	1.0
Prior Year Estate Count	2	1	3	7	17	30
Annual Net Change in Estate Count	0.0	1.0	0.0	0.0	5.0	6.0
annual as a quarterly count	0.0	0.3	0.0	0.0	1.3	1.5

Run Down of Greenfield Development Capacity

Greenfield Development Capacity will reduce without any replacement projects. This chart shows the historical count of land estates for the metro market and the rundown of currently active estates over the forecast period.

The rundown of estates shown in the chart is based on existing estates only; no new or replacement estates.

Modelling Impact on Greenfield Development Capacity due to the Net Change in the number of Active Land Estates

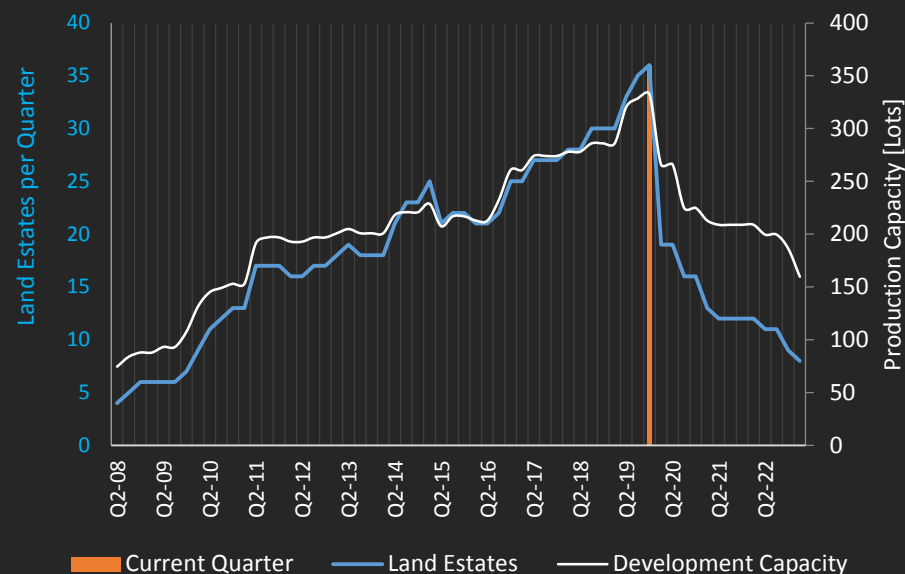
This chart applies the long term average net gain in the number of trading estates in order to model forward Development Capacity.

It is important to forecast the likely change in the number of land estates in order to assess the impact of changing levels of competition on Greenfield market performance and ultimately the Market Setting.

	Quarter	Existing	Added	Q/Qtr Existing	Q/Qtr Added
h	Q4-18	286			
h	Q1-19	286		0.0%	
h	Q2-19	321		12.1%	
h	Q3-19	329		2.5%	
Now	Q4-19	333	333	1.2%	
fcast	Q1-20	266	333	-20.0%	0.0%
fcast	Q2-20	266	338	0.0%	1.6%
fcast	Q3-20	225	343	-15.5%	1.6%
fcast	Q4-20	225	348	0.0%	1.5%
fcast	Q1-21	213	353	-5.3%	1.5%
fcast	Q2-21	209	359	-1.9%	1.5%

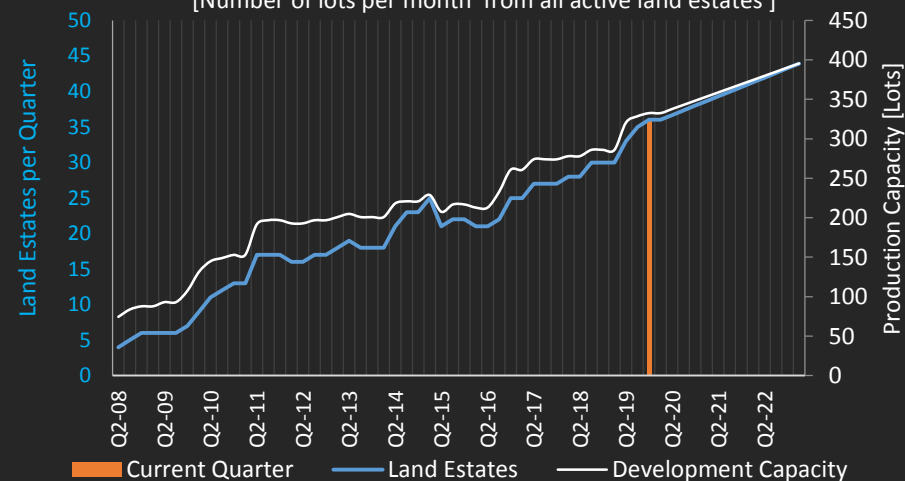
Greenfield Development Capacity - Historic & Forecast

[Number of lots per month from all active land estates]



Greenfield Development Capacity - Historic & Forecast

[Number of lots per month from all active land estates]



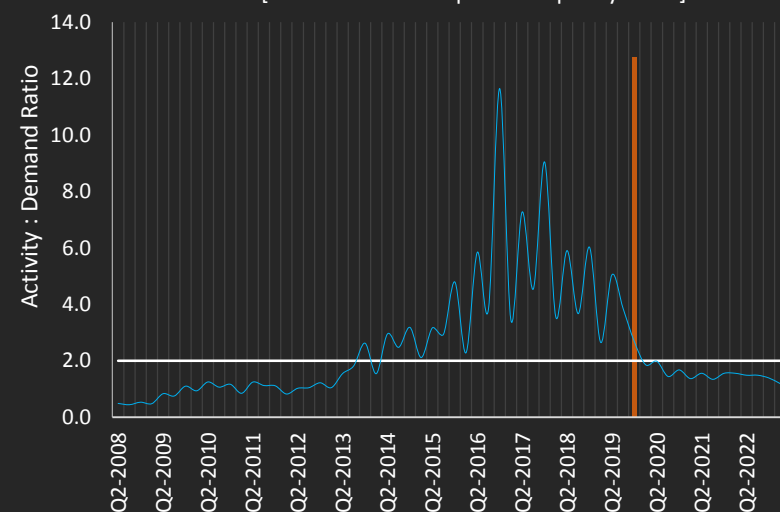
Assessing Impact of Greenfield Development Capacity

These charts show the Greenfield Development Capacity [GDC] ratio over time for the metro market. The market is deemed to be “balanced” when the ratio is between 1.8 and 2.2. Above 2.2: 1 suggests that the market is competitive i.e. competition for customers is strong. Below 1.8:1 suggests a lack of competition between land estates; “uncompetitive”.

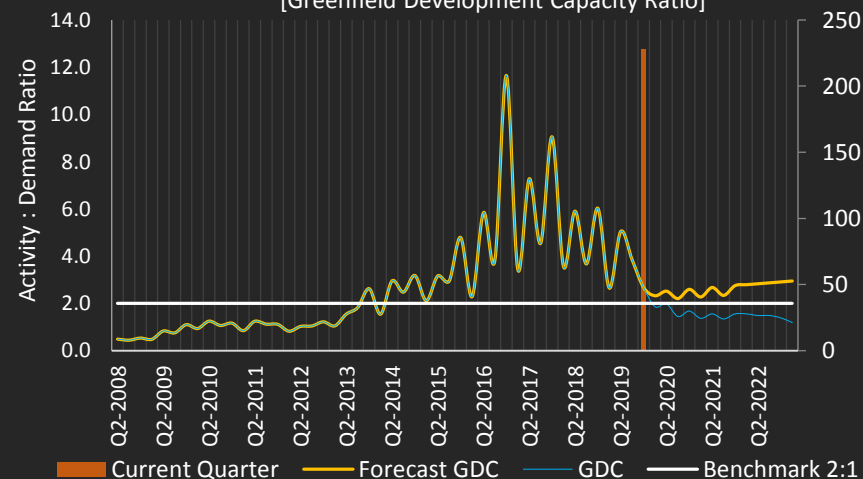
From an industry perspective, a lower GDC ratio provides greater commercial opportunity and reduced market risk. From a Government /Social perspective a ratio above 2:1 is considered good for affordability.

	Quarter	Existing	Added	Existing-Defined	Added-Defined
ha	Q4-16	11.6		Very Competitive	
ha	Q4-17	9.0		Very Competitive	
hq	Q4-18	6.0		Very Competitive	
hq	Q1-19	2.6		Competitive	
hq	Q2-19	5.0		Very Competitive	
hq	Q3-19	3.8		Very Competitive	
Now	Q4-19	2.6		Competitive	
fcast	Q1-20	1.8	2.3	Balanced	Competitive
fcast	Q2-20	1.9	2.5	Balanced	Competitive
fcast	Q3-20	1.4	2.2	Weak Competition	Balanced
fcast	Q4-20	1.6	2.5	Weak Competition	Competitive
fcast	Q1-21	1.3	2.2	Weak Competition	Balanced
fcast	Q2-21	1.5	2.6	Weak Competition	Competitive
fcast	Q3-21	1.3	2.3	Weak Competition	Competitive
fcast	Q4-21	1.5	2.7	Weak Competition	Very Competitive

Market Setting Metric
[Greenfield Development Capacity Ratio]



Market Setting Metric
[Greenfield Development Capacity Ratio]



Section 3

Actual & Benchmark Land Prices



Median Lot Price

This page shows the median lot price [research4] over time. Actual land prices need to reflect the wider price points across the metro housing market. This is because Greenfield land values largely follow or respond to the established housing market.

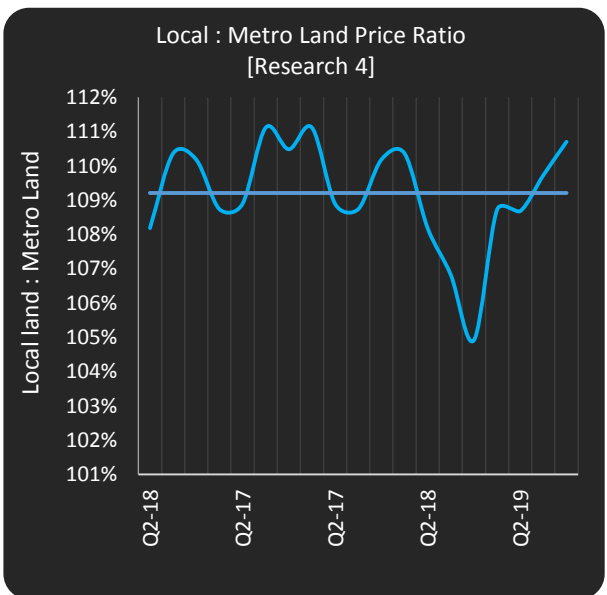
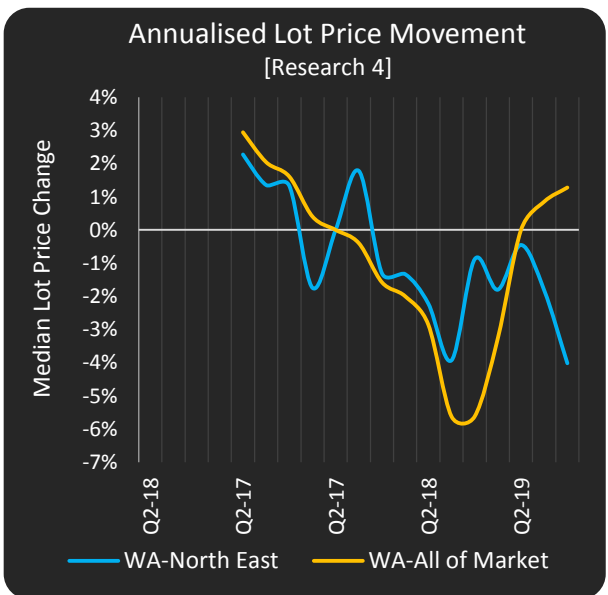
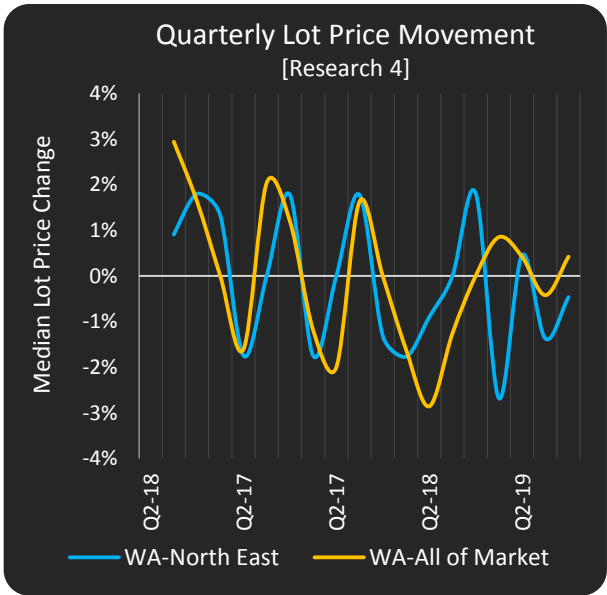
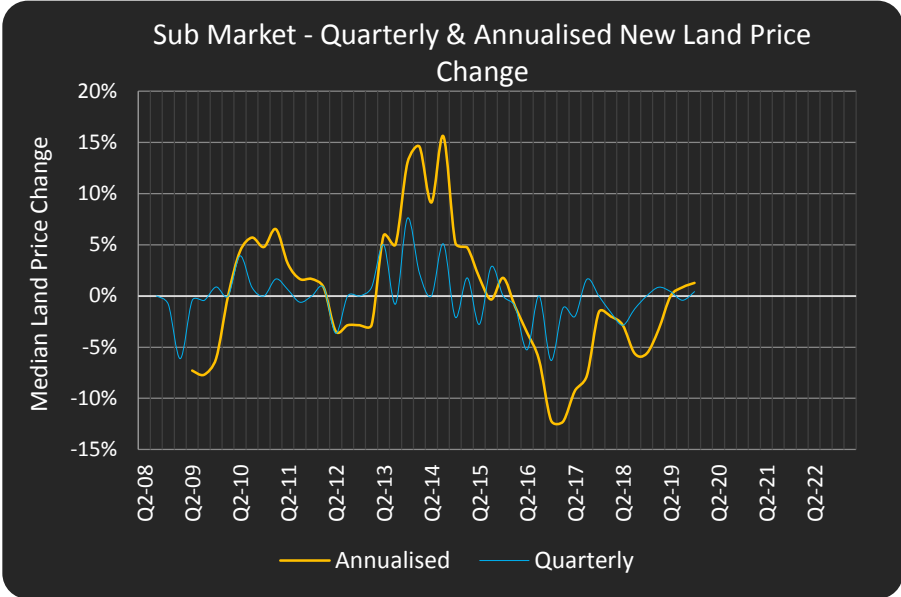
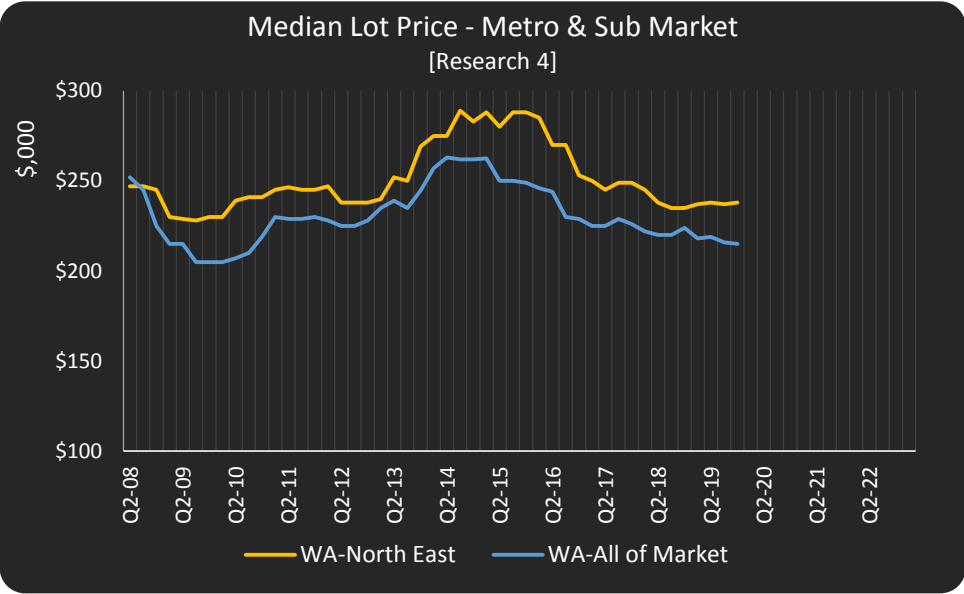
WA-All of Market

WA-North East

WA-North East

	Quarter	Land Price	Qtly %	Annualised %	Land Price	Qtly %	Annual%
6	Q2-18	\$220,000			\$238,000		
7	Q1-18	\$222,000	0.9%		\$245,000	2.9%	
8	Q4-17	\$226,000	1.8%		\$249,000	1.6%	
9	Q3-17	\$229,000	1.3%		\$249,000	0.0%	
10	Q2-17	\$225,000	-1.7%	2%	\$245,000	-1.6%	2.9%
11	Q1-17	\$225,000	0.0%	1%	\$250,000	2.0%	2.0%
12	Q4-16	\$229,000	1.8%	1%	\$253,000	1.2%	1.6%
11	Q1-17	\$225,000	-1.7%	-2%	\$250,000	-1.2%	0.4%
10	Q2-17	\$225,000	0.0%	0%	\$245,000	-2.0%	0.0%
9	Q3-17	\$229,000	1.8%	2%	\$249,000	1.6%	-0.4%
8	Q4-17	\$226,000	-1.3%	-1%	\$249,000	0.0%	-1.6%
7	Q1-18	\$222,000	-1.8%	-1%	\$245,000	-1.6%	-2.0%
6	Q2-18	\$220,000	-0.9%	-2%	\$238,000	-2.9%	-2.9%
5	Q3-18	\$220,000	0.0%	-4%	\$235,000	-1.3%	-5.6%
4	Q4-18	\$224,000	1.8%	-1%	\$235,000	0.0%	-5.6%
3	Q1-19	\$218,000	-2.7%	-2%	\$237,000	0.9%	-3.3%
2	Q2-19	\$219,000	0.5%	0%	\$238,000	0.4%	0.0%
1	Q3-19	\$216,000	-1.4%	-2%	\$237,000	-0.4%	0.9%
Now	Q4-19	\$215,000	-0.5%	-4%	\$238,000	0.4%	1.3%

% of Metro Price	LRA %
108.2%	109%
110.4%	109%
110.2%	109%
108.7%	109%
108.9%	109%
111.1%	109%
110.5%	109%
111.1%	109%
108.9%	109%
108.7%	109%
110.2%	109%
110.4%	109%
108.2%	109%
106.8%	109%
104.9%	109%
108.7%	109%
108.7%	109%
109.7%	109%
110.7%	109%



Strategic Greenfield Report		Q4-19	WA-North East	Local Market Indepth	R4
Fair Value Ratio [based on long term average]	49%	Currently Fair Value	\$684	Fair Value	

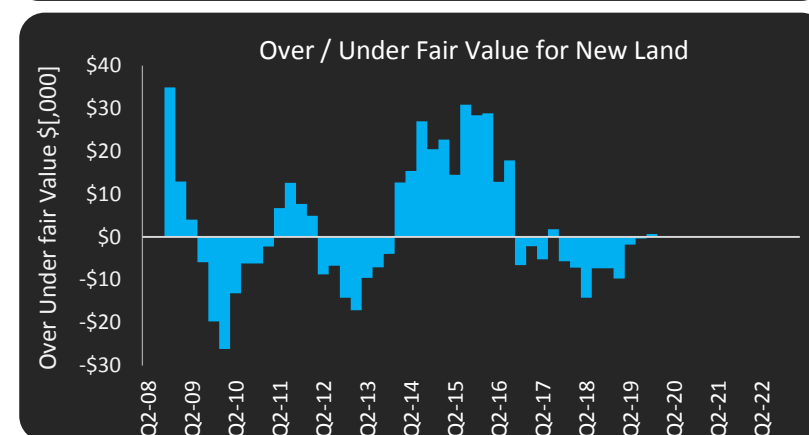
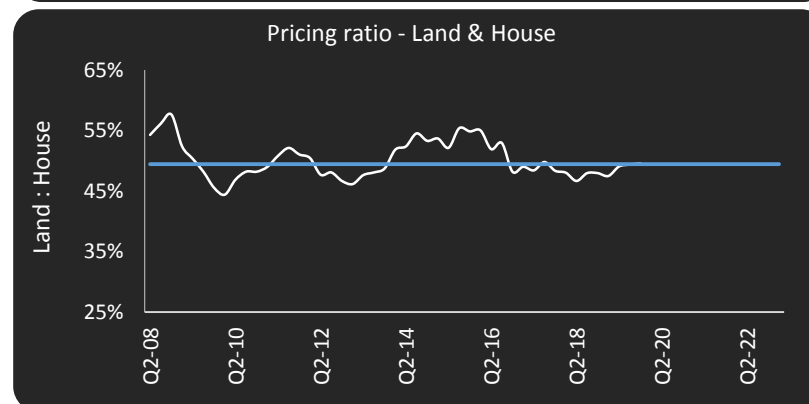
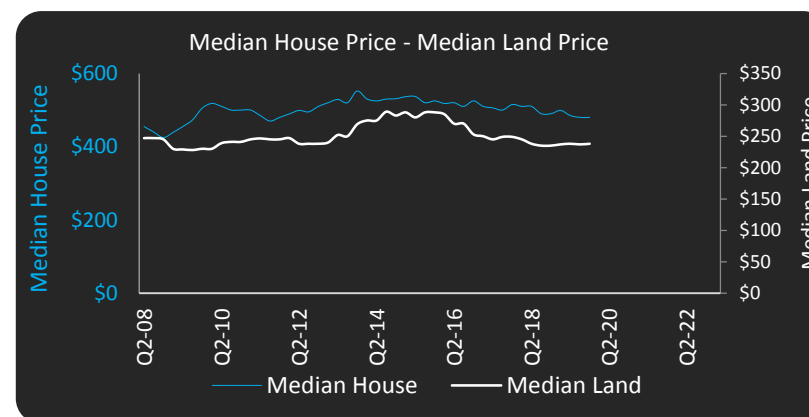
Median Lot Price & Fair Value

This page shows the relationship between new land prices and the price point for established houses. The median house price has been sourced from the ABS.

“Fair” value is defined as the long term value relationship between new land and established housing. A ratio that exceeds this Long term average is considered to be “over” valued; while a ratio that is below the long term average is considered to be “under” fair value.

Depending on the market setting, “over” or “under” “fair” value can impact sales velocity and the performance of the wider Greenfield market. It can also be used to assess market risk; especially when the cycle is changing.

	Quarter	Land Price	Hse Price	Land : House Ratio	Over /Under FV	Fair Value
12	Q4-16	\$253,000	\$525,000	48%	-\$6,565	\$259,565
11	Q1-17	\$250,000	\$510,000	49%	-\$2,149	\$252,149
10	Q2-17	\$245,000	\$506,000	48%	-\$5,171	\$250,171
9	Q3-17	\$249,000	\$500,000	50%	\$1,795	\$247,205
8	Q4-17	\$249,000	\$515,000	48%	-\$5,621	\$254,621
7	Q1-18	\$245,000	\$510,000	48%	-\$7,149	\$252,149
6	Q2-18	\$238,000	\$510,000	47%	-\$14,149	\$252,149
5	Q3-18	\$235,000	\$490,000	48%	-\$7,261	\$242,261
4	Q4-18	\$235,000	\$490,000	48%	-\$7,261	\$242,261
3	Q1-19	\$237,000	\$499,000	47%	-\$9,710	\$246,710
2	Q2-19	\$238,000	\$485,000	49%	-\$1,788	\$239,788
1	Q3-19	\$237,000	\$480,000	49%	-\$316	\$237,316
Now	Q4-19	\$238,000	\$480,000	50%	\$684	\$237,316



Forecasting New Land Prices

Scenario 1: Using the Fair Value Ratio

Applying the “fair value” ratio to the forecast median house price point produces this forecast.

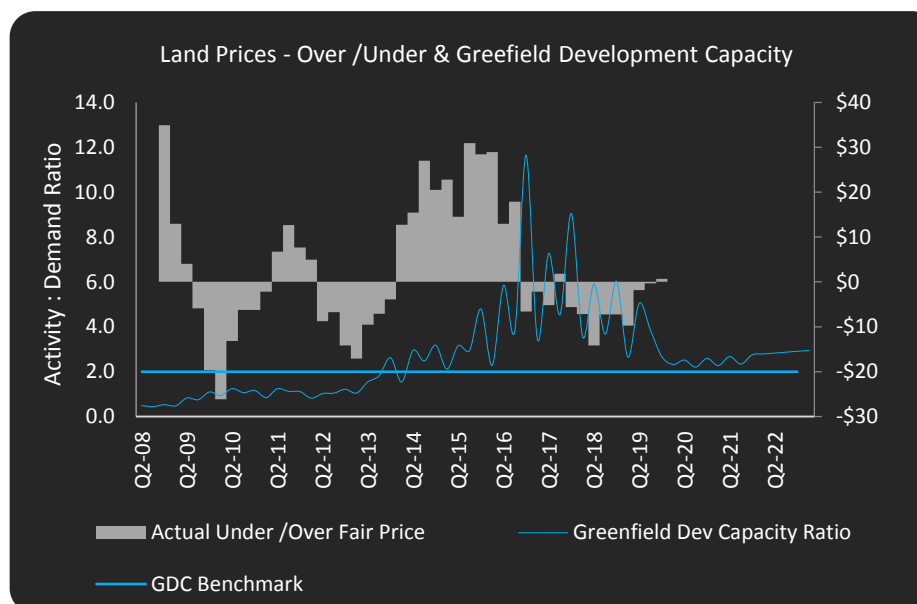
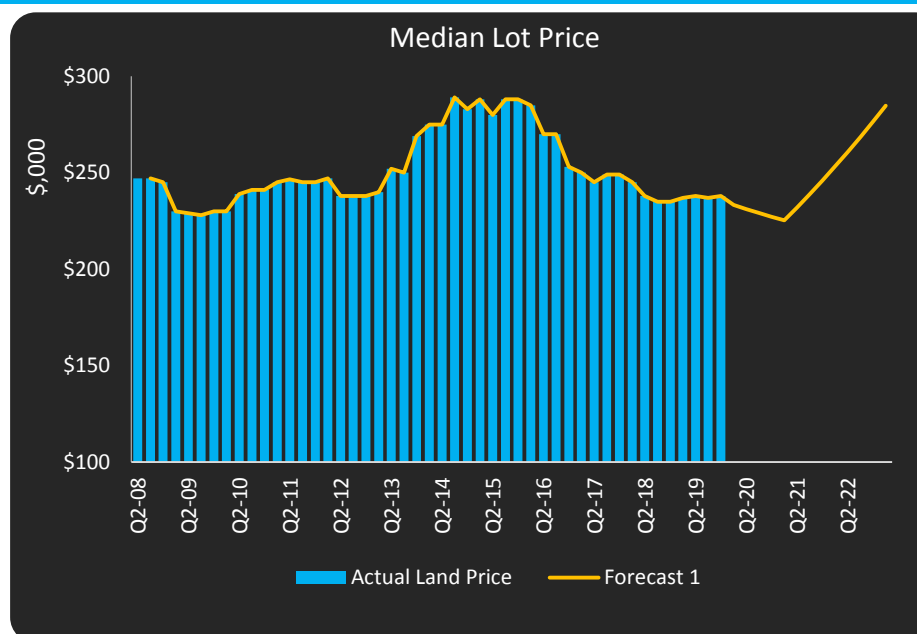
The forecast commences with the latest land price and then adopts the “fair value” methodology.

This scenario is useful for those markets which have been pricing land in line with the “fair value” ratio.

SCENARIO 1: FOR NEW LAND PRICES

	Quarter	GDC	Land:House	Land Price [f]	Under / Over Fair
Now	Q4-19	2.6	49%	\$238,000	\$684
1	Q1-20	2.3	49%	\$233,221	Fair Value
2	Q2-20	2.5	49%	\$231,199	Fair Value
3	Q3-20	2.2	49%	\$229,195	Fair Value
4	Q4-20	2.5	49%	\$227,209	Fair Value
5	Q1-21	2.2	49%	\$225,240	Fair Value
6	Q2-21	2.6	49%	\$231,930	Fair Value
7	Q3-21	2.3	49%	\$238,820	Fair Value
8	Q4-21	2.7	49%	\$245,914	Fair Value
9	Q1-22	2.7	49%	\$253,219	Fair Value
10	Q2-22	2.8	49%	\$260,740	Fair Value
11	Q3-22	2.8	49%	\$268,486	Fair Value
12	Q4-22	2.9	49%	\$276,461	Fair Value
13	Q1-23	2.9	49%	\$284,673	Fair Value
				1.5%	

average Qtr %



Forecasting New Land Prices

Scenario 2: Using Historic Fair Value to forecast

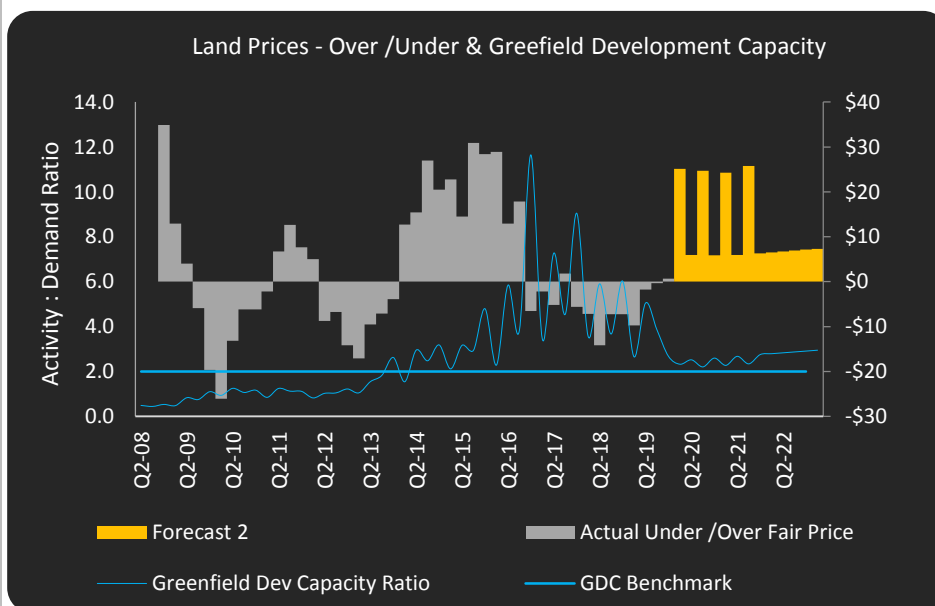
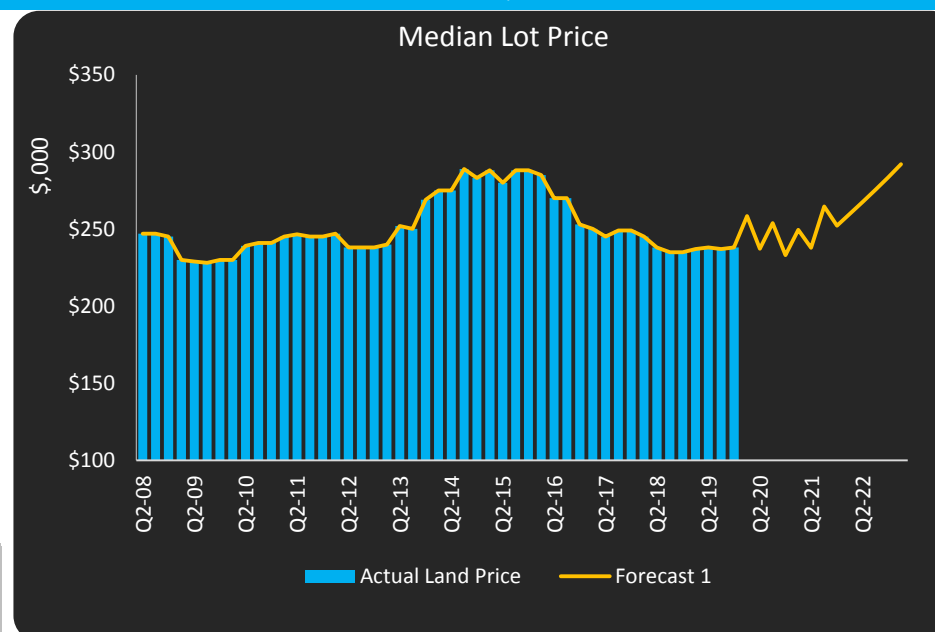
Applying historic “Fair Value” averages to the forecast median house price points produces this forecast. The historic ratios are associated with different levels of competition or Greenfield Development Capacity as per the table. The forecast commences with the latest land price and then adopts the appropriate price movement average.

This forecast does not factor in any “period of correction”; simply picks up the last published median land price and applies the assigned fair value ratio.

SCENARIO 2: FOR NEW LAND PRICES

	Quarter	GDC	Land:House	Land Price [f]	Under / Over Fair
Now	Q4-19	2.6	49%	\$238,000	\$684
1	Q1-20	2.3	55%	\$258,377	\$25,156
2	Q2-20	2.5	51%	\$237,158	\$5,959
3	Q3-20	2.2	55%	\$253,917	\$24,722
4	Q4-20	2.5	51%	\$233,065	\$5,856
5	Q1-21	2.2	55%	\$249,535	\$24,295
6	Q2-21	2.6	51%	\$237,908	\$5,978
7	Q3-21	2.3	55%	\$264,580	\$25,760
8	Q4-21	2.7	51%	\$252,252	\$6,338
9	Q1-22	2.7	51%	\$259,745	\$6,526
10	Q2-22	2.8	51%	\$267,460	\$6,720
11	Q3-22	2.8	51%	\$275,405	\$6,920
12	Q4-22	2.9	51%	\$283,586	\$7,125
13	Q1-23	2.9	51%	\$292,010	\$7,337
				1.7%	

average Qtr %



Forecasting New Land Prices

Scenario 3: Using Historic Quarterly Price Changes

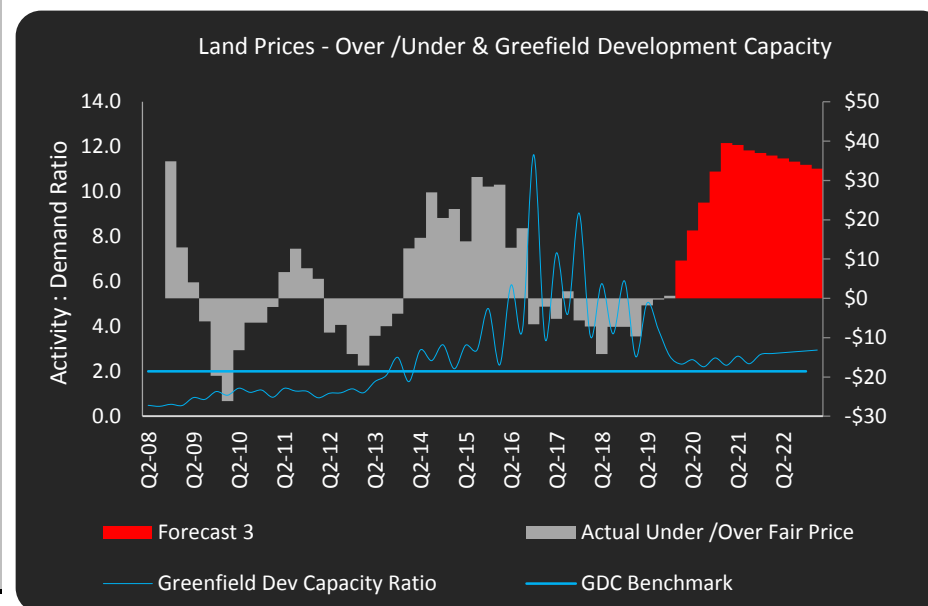
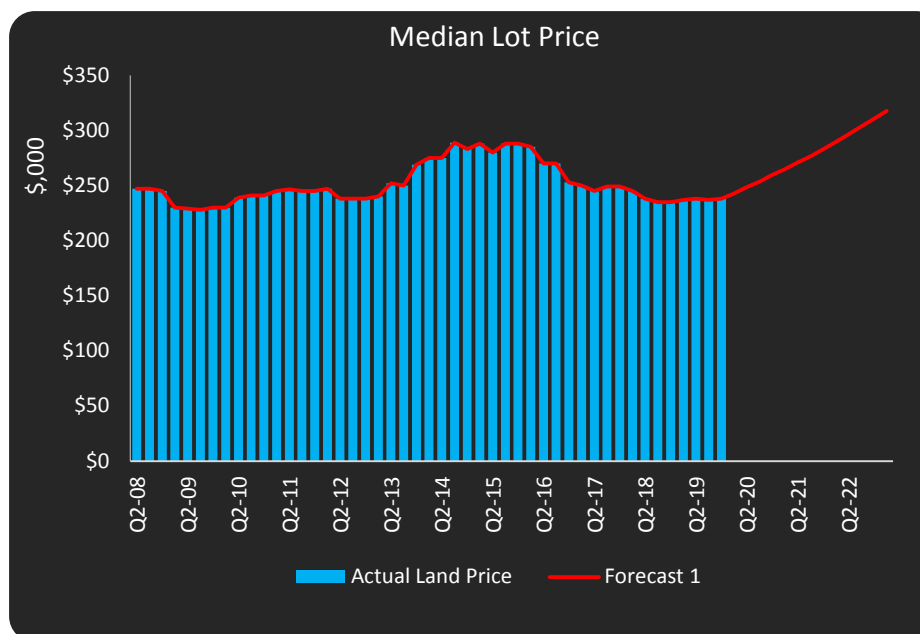
Applying historic quarterly price movement averages to the forecast median house price point produces this forecast. The historic quarterly price changes are associated with different levels of competition or Greenfield Development Capacity as per the table.

This forecast does not factor in any “period of correction”; simply picks up the last published median land price and applies the assigned quarterly price average. Useful in understanding the impact on Over or Under Fair Land Value. Red cells indicate record under valuation.

SCENARIO 3: FOR NEW LAND PRICES

	Quarter	GDC	Qtly %	Land Price [f]	Under / Over Fair
Now	Q4-19	2.6	0.4%	\$238,000	\$684
1	Q1-20	2.3	2.0%	\$242,819	\$9,598
2	Q2-20	2.5	2.3%	\$248,515	\$17,316
3	Q3-20	2.2	2.0%	\$253,547	\$24,351
4	Q4-20	2.5	2.3%	\$259,495	\$32,286
5	Q1-21	2.2	2.0%	\$264,749	\$39,509
6	Q2-21	2.6	2.3%	\$270,960	\$39,030
7	Q3-21	2.3	2.0%	\$276,446	\$37,626
8	Q4-21	2.7	2.3%	\$282,931	\$37,018
9	Q1-22	2.7	2.3%	\$289,569	\$36,350
10	Q2-22	2.8	2.3%	\$296,362	\$35,622
11	Q3-22	2.8	2.3%	\$303,315	\$34,829
12	Q4-22	2.9	2.3%	\$310,431	\$33,970
13	Q1-23	2.9	2.3%	\$317,714	\$33,041
				2.6%	

average Qtr %



SUMMARY OF WA-North East GREENFIELD MARKET PERFORMANCE AND FORECAST

		Actual	Forecast Land Price Scenarios			Metro	Greenfield Dev Capacity		GDC for Local Market compared to Metro	Metro House Prices
	Quarter	Land Price	Scenario 1	Scenario 2	Scenario 3	GDC	GDC	Competitiveness		Status of Trend
h	Q1-18	\$245,000								Actual
h	Q2-18	\$238,000								Actual
h	Q3-18	\$235,000								Actual
h	Q4-18	\$235,000								Actual
h	Q1-19	\$237,000								Actual
h	Q2-19	\$238,000								Actual
h	Q3-19	\$237,000								Actual
now	Q4-19	\$238,000				4.3	2.6	Competitive	Better than Metro	Holding
1	Q1-20		\$233,221	\$258,377	\$242,819	3.8	2.3	Competitive	Better than Metro	Holding
2	Q2-20		\$231,199	\$237,158	\$248,515	4.1	2.5	Competitive	Better than Metro	Holding
3	Q3-20		\$229,195	\$253,917	\$253,547	3.5	2.2	Balanced	Better than Metro	Holding
4	Q4-20		\$227,209	\$233,065	\$259,495	4.2	2.5	Competitive	Better than Metro	Holding
5	Q1-21		\$225,240	\$249,535	\$264,749	3.6	2.2	Balanced	Better than Metro	Holding
6	Q2-21		\$231,930	\$237,908	\$270,960	4.3	2.6	Competitive	Better than Metro	Returning to trend
7	Q3-21		\$238,820	\$264,580	\$276,446	3.7	2.3	Competitive	Better than Metro	Returning to trend
8	Q4-21		\$245,914	\$252,252	\$282,931	4.4	2.7	Very Competitive	Better than Metro	Returning to trend
9	Q1-22		\$253,219	\$259,745	\$289,569	3.8	2.7	Very Competitive	Better than Metro	Returning to trend
10	Q2-22		\$260,740	\$267,460	\$296,362	4.5	2.8	Very Competitive	Better than Metro	Returning to trend
11	Q3-22		\$268,486	\$275,405	\$303,315	3.9	2.8	Very Competitive	Better than Metro	Returning to trend
12	Q4-22		\$276,461	\$283,586	\$310,431	4.6	2.9	Very Competitive	Better than Metro	Returning to trend
13	Q1-23		\$284,673	\$292,010	\$317,714	4.0	2.9	Very Competitive	Better than Metro	Returning to trend
Average Qtly Price Change			1.5%	1.7%	2.6%	4.1	2.6	Competitive	Better than Metro	

Section 4

Key Supporting Charts



National Land Survey

Return Rate

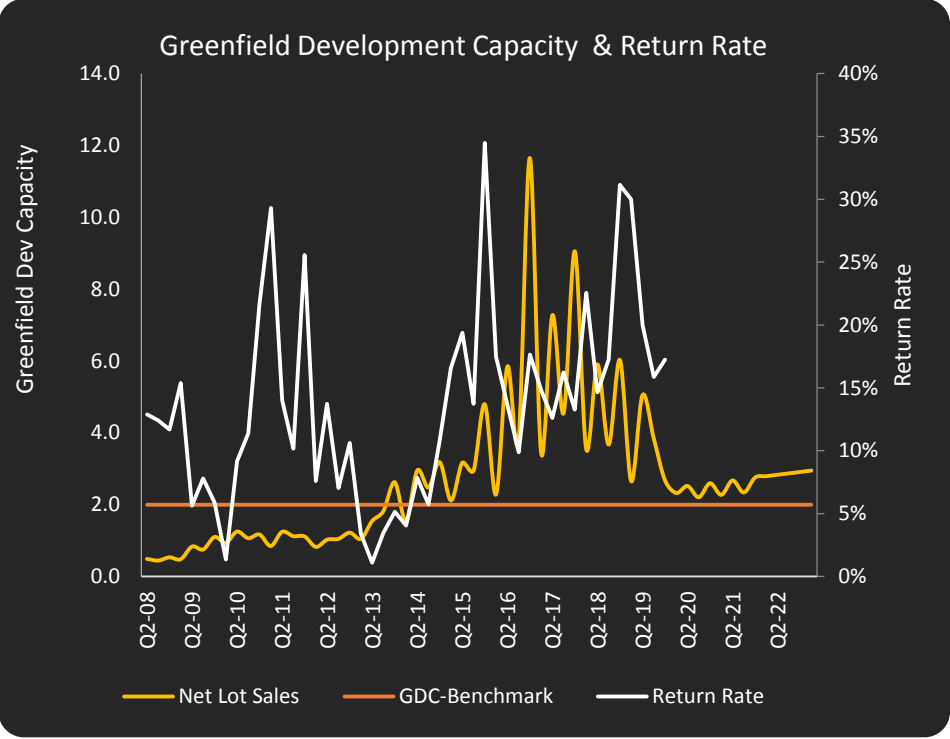
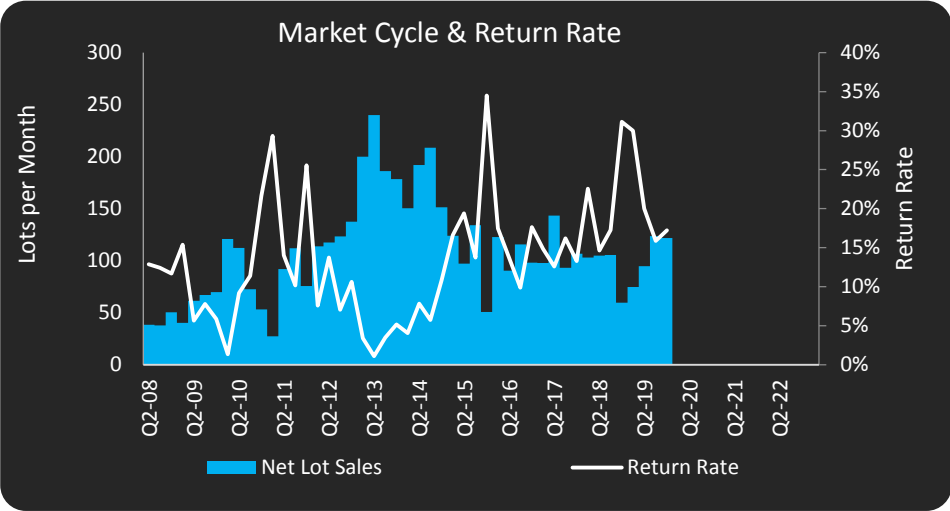
The number or percentage of gross activity returned to the Developer

The return rate represents the percentage of gross activity that was previously allocated or contracted; but now has returned to the stock list.

The Return rate can be used to provide insight regarding the strength and direction of expressed demand i.e. builder and end user buying intentions.

A high Return rate signals that something is wrong with the market fundamentals, either an internal issue around product or an external issue such as demand or the economy.

	Quarter	GDC	Return %	GDC Status	Return Status
12	Q4-16	11.6	17.6%	Very Competitive	Major Issue
11	Q1-17	3.4	14.8%	Very Competitive	Cautious
10	Q2-17	7.2	12.6%	Very Competitive	Cautious
9	Q3-17	4.5	16.2%	Very Competitive	Major Issue
8	Q4-17	9.0	13.3%	Very Competitive	Cautious
7	Q1-18	3.5	22.6%	Very Competitive	Critical
6	Q2-18	5.9	14.6%	Very Competitive	Cautious
5	Q3-18	3.6	17.3%	Very Competitive	Major Issue
4	Q4-18	6.0	31.2%	Very Competitive	Critical
3	Q1-19	2.6	30.0%	Competitive	Critical
2	Q2-19	5.0	20.0%	Very Competitive	Critical
1	Q3-19	3.8	15.9%	Very Competitive	Major Issue
now	Q4-19	2.6	17.2%	Competitive	Major Issue
1	Q1-20	2.3		Competitive	
2	Q2-20	2.5		Competitive	
3	Q3-20	2.2		Balanced	
4	Q4-20	2.5		Competitive	
5	Q1-21	2.2		Balanced	
6	Q2-21	2.6		Competitive	



Production Clearance Rate

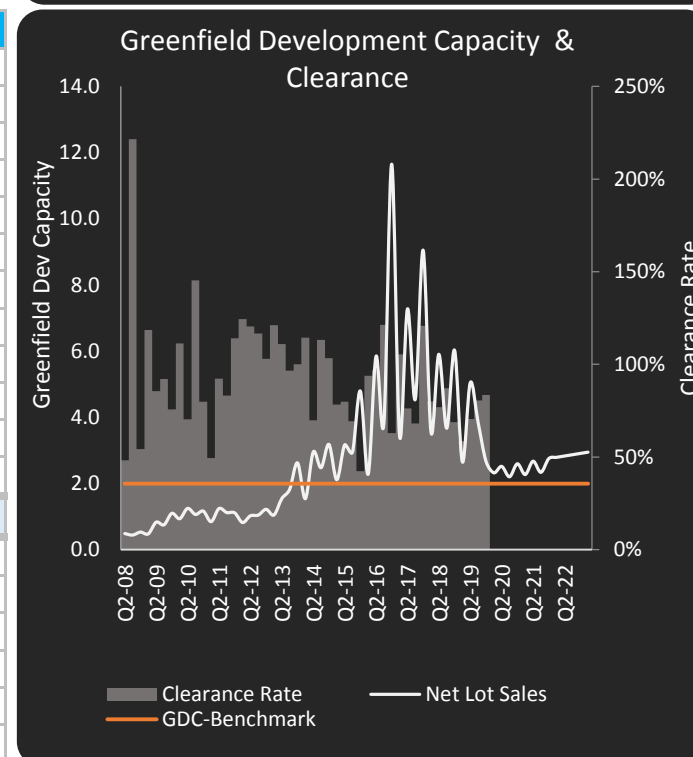
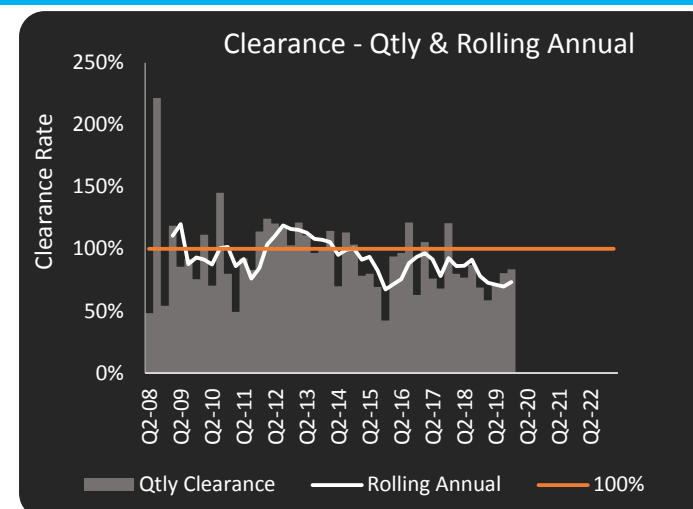
The quarters total net sales as a percentage of total new production for the quarter

The Clearance rate is based on the relationship between each quarter's total net sales and total new production i.e. new releases.

The metric can be used to gauge an idea as to the direction the industry is taking in responding to demand. An industry that is over producing relative to expressed sales is either ill-informed and or confident about the near future.

The release profile is also influenced by the competitive profile [GDC RATIO] of the market i.e. an uncompetitive setting is likely to have a lower overall production volume.

	Quarter	GDC	Clearance	GDC Status	Qtly Status	Trend Status
12	Q4-16	11.6	63%	Very Competitive	Over Producing	Over Producing
11	Q1-17	3.4	105%	Very Competitive	Balanced	Balanced
10	Q2-17	7.2	76%	Very Competitive	Over Producing	Over Producing
9	Q3-17	4.5	68%	Very Competitive	Over Producing	Over Producing
8	Q4-17	9.0	121%	Very Competitive	Under Producing	Over Producing
7	Q1-18	3.5	80%	Very Competitive	Over Producing	Over Producing
6	Q2-18	5.9	77%	Very Competitive	Over Producing	Over Producing
5	Q3-18	3.6	87%	Very Competitive	Over Producing	Over Producing
4	Q4-18	6.0	69%	Very Competitive	Over Producing	Over Producing
3	Q1-19	2.6	59%	Competitive	Over Producing	Over Producing
2	Q2-19	5.0	70%	Very Competitive	Over Producing	Over Producing
1	Q3-19	3.8	80%	Very Competitive	Over Producing	Over Producing
now	Q4-19	2.6	84%	Competitive	Over Producing	Over Producing
1	Q1-20	2.3		Competitive		
2	Q2-20	2.5		Competitive		
3	Q3-20	2.2		Balanced		
4	Q4-20	2.5		Competitive		
5	Q1-21	2.2		Balanced		
6	Q2-21	2.6		Competitive		

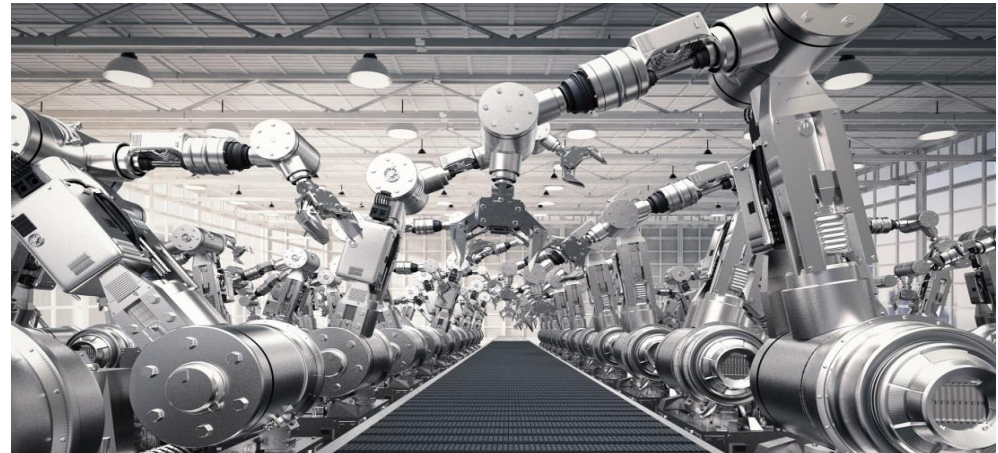


Stock & Production Profile

The profile of stock ready for sale and production levels

The performance of the market is influenced by the volume of stock ready for sale. Low stock levels can hinder sales activity and bring about price escalation.

This table shows the level or number of trading months current stock levels are able to respond to alongside production trends. The GDC profile will also influence the speed of any change arising from the Stock / Production profile.



								Stock & Production Impact on	
	Quarter	GDC	Stock	GDC Status	Stock [Months]	Stock Status	Production Status	Land Values	Activity
12	Q4-16	11.6	492	Very Competitive	5.0	High Stock	Over Producing	Strong Downward	Holding
11	Q1-17	3.4	426	Very Competitive	4.4	Balanced	Balanced	Holding	Holding
10	Q2-17	7.2	498	Very Competitive	3.5	Balanced	Over Producing	Downward	Lifting
9	Q3-17	4.5	575	Very Competitive	6.2	High Stock	Over Producing	Strong Downward	Holding
8	Q4-17	9.0	471	Very Competitive	4.4	Balanced	Under Producing	Upward	Reducing
7	Q1-18	3.5	458	Very Competitive	4.4	Balanced	Over Producing	Downward	Lifting
6	Q2-18	5.9	498	Very Competitive	4.7	Balanced	Over Producing	Downward	Lifting
5	Q3-18	3.6	479	Very Competitive	4.5	Balanced	Over Producing	Downward	Lifting
4	Q4-18	6.0	479	Very Competitive	8.0	High Stock	Over Producing	Strong Downward	Holding
3	Q1-19	2.6	541	Competitive	7.2	High Stock	Over Producing	Strong Downward	Holding
2	Q2-19	5.0	589	Very Competitive	6.2	High Stock	Over Producing	Strong Downward	Holding
1	Q3-19	3.8	609	Very Competitive	4.9	Balanced	Over Producing	Downward	Lifting
now	Q4-19	2.6	605	Competitive	5.0	Balanced	Over Producing	Downward	Lifting
1	Q1-20	2.3		Competitive					
2	Q2-20	2.5		Competitive					
3	Q3-20	2.2		Balanced					
4	Q4-20	2.5		Competitive					
5	Q1-21	2.2		Balanced					
6	Q2-21	2.6		Competitive					

