



URBAN
DEVELOPMENT
INSTITUTE OF
AUSTRALIA (NSW)

GREENFIELD LAND SUPPLY PIPELINE REPORT

JUNE 2021

"The housing challenge over the coming decades is to build enough homes for people to live in, to support access to housing that is more affordable, and to ensure that the housing market is flexible enough to respond to people's changing needs and preferences."

- NSW Intergenerational Report - June 2021

EXECUTIVE SUMMARY

The NSW Government's *Intergenerational Report* has identified that NSW needs to build 42,000 new homes per annum, with over 90 per cent in the Greater Sydney Megaregion – from the Illawarra to the Hunter. This translates into around 14,000 greenfield homes. To give an idea of the scale of this challenge, even at the peak of housing construction in 2016, NSW only delivered 13,100 homes. Quite simply, we are facing a greenfield housing supply crisis and marginal improvements are not going to deliver what is required. We need a step change in supply!

The delivery of 14,000 greenfield homes year in - year out, requires a healthy pipeline of development ready land, that is, it has been re-zoned and the enabling infrastructure (roads, water, sewage, etc) has been built. Currently, the demand for greenfield homes, partly because of the COVID pandemic is extremely strong and most developers are producing housing lots as fast as they can. However, this is not proving sufficient to meet demand, with reports of nearly 100 people applying for every lot in Western Sydney. Unsurprisingly, this is resulting in large price rises, with some locations reporting a 45 per cent hike in prices over the last 6 months.

To maintain a healthy pipeline of development ready land, requires a constant supply of newly rezoned land and enabling infrastructure. The Greenfield Land Supply Pipeline report is a survey of greenfield developers covering over 90 per cent of developable land in the Greater Sydney Megaregion to understand how many lots are expected to become available in the years ahead and the barriers to bringing them to market. Compared to the 14,000 lots per annum required to meet the minimum demand identified by the NSW Government, the results are sobering.

Even if all expected lots are delivered up until FY29, including those currently requiring re-zoning or facing infrastructure constraints, supply will still fall short of demand by 3,200 lots per annum.

At the current expected rate of land release there will be over 25,600 greenfield homes of additional unmet demand in the Greater Sydney Megaregion by FY30.

Just to deliver the current expected (insufficient) levels of supply, the report identifies 32 locations that have estates which need to be rezoned by FY24. Thirteen of those locations are now urgent, with supply hoping to be delivered in FY23 needing rezoning to progress. The report has also looked at what can be done to deliver more lots sooner. We have identified rezoning opportunities that can deliver a 13 per cent uplift in housing lots in FY23 and a further 8 per cent uplift in FY24 without negative impacts on supply in the subsequent years.

As well as re-zoning, 80 per cent of lots that are hoping to be delivered between FY22 and FY29 require enabling infrastructure. Historically, much of this infrastructure has not been delivered in a timely way. If this experience is repeated, then the shortfall in housing supply will be even larger.

To fix the greenfield housing supply crisis, UDIA NSW recommendations include:

- **More than halving the time taken for rezonings and precinct approvals facilitated by technology.**
- **Publish deadlines for rezonings and precinct approvals, helping to focus energies and increasing certainty as to when decisions will be made.**
- **Fund key enabling infrastructure.**
- **Resolve the flooding issues in the North West Growth Centre.**
- **Better co-ordination of NSW Government agencies and Councils through the re-introduction of a Cabinet Sub-committee for Housing Supply and accompanying Housing Supply Taskforce, as recommended by the NSW Productivity Commissioner.**

TABLE OF CONTENTS

1. Greenfield Land in the Greater Sydney Megaregion	4
2. South West Sydney and Greater Macarthur	11
3. North West Sydney	15
4. Illawarra-Shoalhaven	19
5. Hunter and Central Coast	23
6. Conclusion	27
7. Appendix	28

METHODOLOGY NOTES

Survey of Greenfield Developers

In May 2021, UDIA NSW undertook an in-depth survey of greenfield land developers in the Greater Sydney Megaregion (Greater Sydney, Illawarra, Shoalhaven, Central Coast, and the Hunter) to identify the anticipated schedule for future lot delivery and to quantify the constraints preventing lots from being delivered. Responses were received from 31 organisations covering 146 land estates and approximately 130,000 potential lots. Responses to the survey covered approximately 90 per cent of greenfield estates in the Sydney Megaregion and adjustments were made to estimate additional estates that were not captured in the survey, such as those delivered by small scale developers. The information underlying this report is based on the adjusted figures and UDIA NSW estimates of the total greenfield development industry in the Megaregion.

Building Blocks

In April and May 2021, UDIA NSW, in collaboration with Infrastructure Development Consultants in Greater Western Sydney, ADW Johnson in the Hunter and Central Coast, and Cardno in the Illawarra-Shoalhaven, undertook a comprehensive study of large-scale enabling infrastructure across the Greater Sydney Megaregion. In each region, critical pieces of enabling infrastructure were identified and costed, and the accompanying number of lots unlocked for development were calculated. The Building Blocks reports for each region align with the priorities identified in this report and demonstrate the specific steps that need to be taken to unlock land that is currently constrained by a gap in the enabling infrastructure.

1. GREENFIELD LAND IN THE GREATER SYDNEY MEGAREGION

The Greater Sydney Megaregion, made up of Greater Sydney, the Illawarra-Shoalhaven, Central Coast, and the Hunter, is facing a perfect storm of record high demand and a critical shortage of new greenfield housing due to zoning and infrastructure constraints on new development. Demand for new homes in greenfield areas is at a record high, driven by record low interest rates, COVID-19 induced demand for more space, and greater acceptance of working from home. Zoned and serviced land ready to meet this demand is in very short supply, locking prospective buyers out of the market. **The land supply pipeline needs greater depth to respond to demand and coordination of enabling infrastructure to improve certainty for investment, with the goal of better housing affordability.**

With supply unable to meet demand, the price of new houses in greenfield areas has risen dramatically, with certain locations reporting 45 per cent growth in pricing in the last 6 months. In 2021 alone, the time to save for a deposit in the Sydney greenfield market has increased from 13 to 14 years. Accompanying this price rise are widely reported cases of prospective homebuyers camping in line, days in advance of land being opened for sale, to secure the opportunity to purchase a property. According to greenfield market analysis firm Research4, the Greater Sydney Megaregion reached record low levels of supply in March 2021, with every lot listed for sale being purchased. As unmet demand continues to build, there will be increasing upward pressure on prices which will have a growing impact on the ability of first home buyers to enter the market.

1.1 LAND SUPPLY AND DEMAND OUTLOOK

The *NSW Intergenerational Report - June 2021* states that over the next 40 years, an average of 42,000 dwellings per annum are needed in New South Wales and that 94 per cent of the dwellings - 39,500 new homes per year - need to be delivered in the Greater Sydney Megaregion. Historically, approximately one third of new homes delivered in the Greater Sydney Megaregion have been greenfield corresponding to 14,000 greenfield homes per annum. **Given the very strong demand for lower density product after COVID-19 and the significant decline of multi-units supply (apartment approvals are currently down by 64 per cent from the peak in 2016 and commencements down 47 per cent), there will be the possibility of even higher demand for greenfield housing over the next 2-3 years as apartment supply recovers.** This is a serious challenge, meaning a business-as-usual approach will be devastating for our future as housing becomes increasingly unaffordable, ultimately with potential to create an enormous burden on taxpayer funded housing. The current record supply of 13,180 greenfield lots released in one year in the Greater Sydney Megaregion occurred at the peak of greenfield development in 2016 and was generated by significant enabling infrastructure investment and land release coordination.

TO MEET DEMAND, CONSTRAINTS NEED TO BE LIFTED AND NEW LOCATIONS NEED TO BE UNLOCKED FOR DEVELOPMENT.

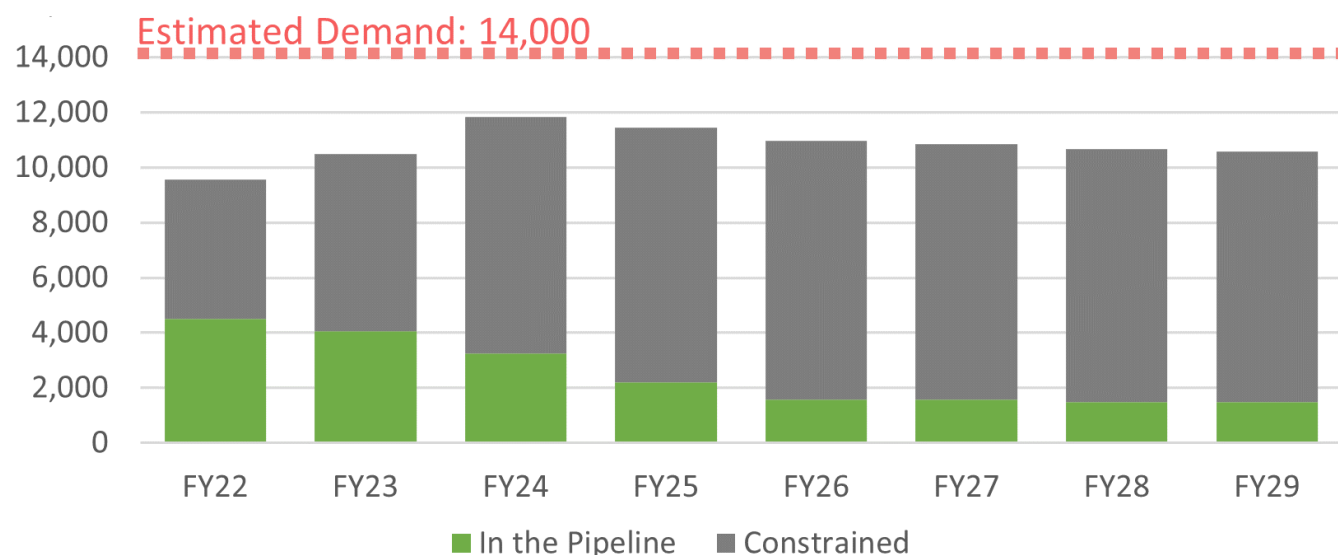


FIGURE 1: GREENFIELD LAND SUPPLY OUTLOOK

SOURCE: UDIA NSW

DEMAND ESTIMATES ADAPTED FROM *NSW INTERGENERATIONAL REPORT - JUNE 2021*

As shown in *figure 1*, the expected supply of lots out to FY29 is well below the 14,000 needed in every single year.

Additionally, the majority of lots expected to be delivered in the next 8 years are constrained, with 76 per cent of expected lots needing sewer infrastructure and 70 per cent needing water (figure 2). 50 per cent of lots anticipated to be delivered in the next 8 years still require power, roads, or a combination of these. Non-infrastructure constraints, such as lengthy VPA negotiations and flooding impact 27 per cent of future supply, while 18 per cent of lots face additional issues, including biodiversity offsets and government agency decisions.

FOUR OUT OF FIVE LOTS (66,000) THAT COULD BE DELIVERED OVER THE NEXT 8 YEARS ARE FACING CONSTRAINTS PREVENTING DEVELOPMENT, WITH THE MAJORITY IMPACTED BY THE TIMELY DELIVERY OF SEWER AND WATER INFRASTRUCTURE.

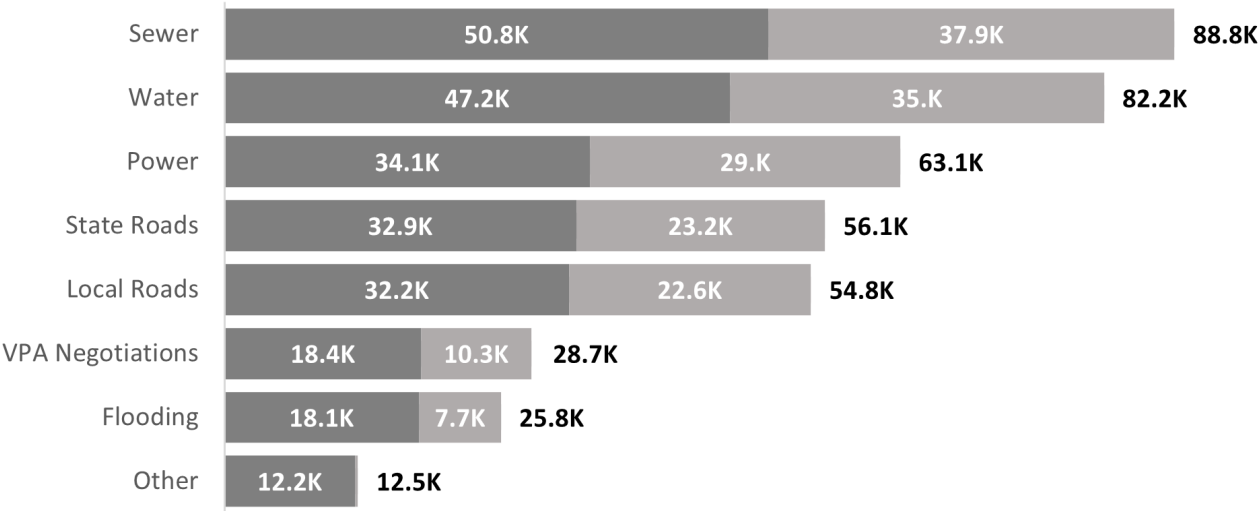


FIGURE 2: THE NUMBER OF LOTS IMPACTED BY CONSTRAINTS SOURCE: UDIA NSW

If all expected lots are delivered, including those currently facing infrastructure constraints, supply will still fall short of demand by **4,400 lots in FY22 and 10,100 lots over the next 3 years**. Even if current unmet demand is disregarded, at the expected rate of land release there will be 25,600 homes of unmet demand for greenfield housing in the Greater Sydney Megaregion by FY30 (*figure 3*).

WITHOUT ACTION, THERE WILL BE AN UNDERSUPPLY OF 25,600 GREENFIELD HOUSING LOTS RELATIVE TO DEMAND BY FY30.

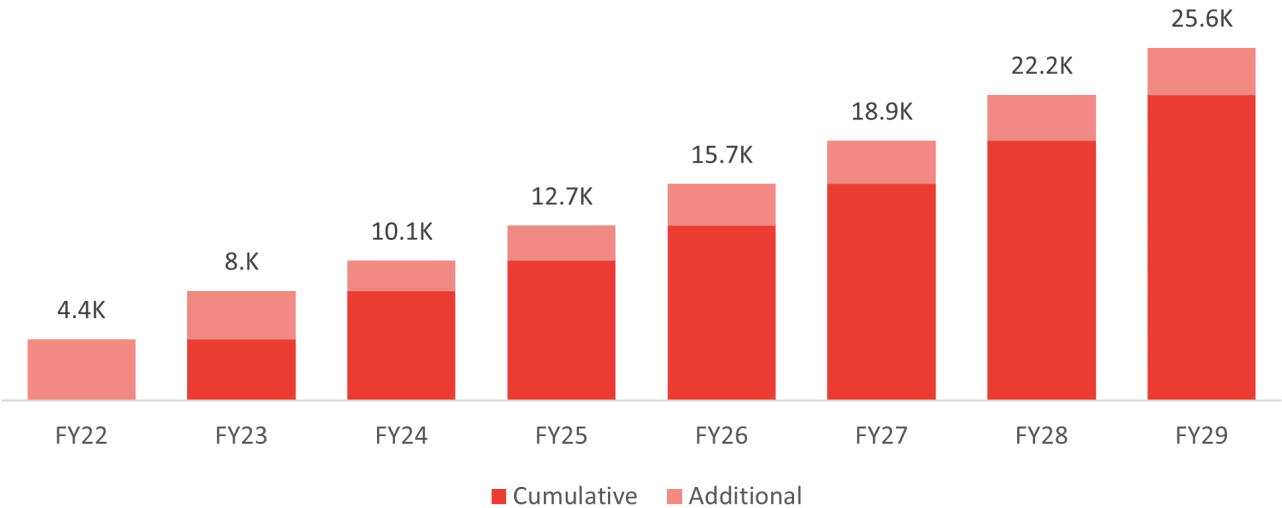


FIGURE 3: CUMULATIVE UNMET DEMAND IN THE GREATER SYDNEY MEGAREGION SOURCE: UDIA NSW

It is not just homes that will be affected. This shortfall impacts 7,100 potential jobs and \$4bn of potential economic output in NSW per annum.

The supply of developable land in the Greater Sydney Megaregion needs to significantly increase to deliver the 14,000 new homes per annum needed to house the growing population. Land needs to be unlocked in the short term and a reliable pipeline of future zoned and serviced land needs to be established.

1.2 ENABLING INFRASTRUCTURE:

27,000 lots have been identified by greenfield developers where the only constraint on supply is enabling infrastructure such as sewer, water, power, or roads. Including land that also requires rezoning, there are 64,000 lots awaiting infrastructure delivery across the Greater Sydney Megaregion.

64,000 LOTS THAT ARE PROGRAMMED FOR DELIVERY BETWEEN FY22 AND FY29 NEED ENABLING INFRASTRUCTURE TO BE UNLOCKED BEFORE DEVELOPMENT CAN OCCUR.

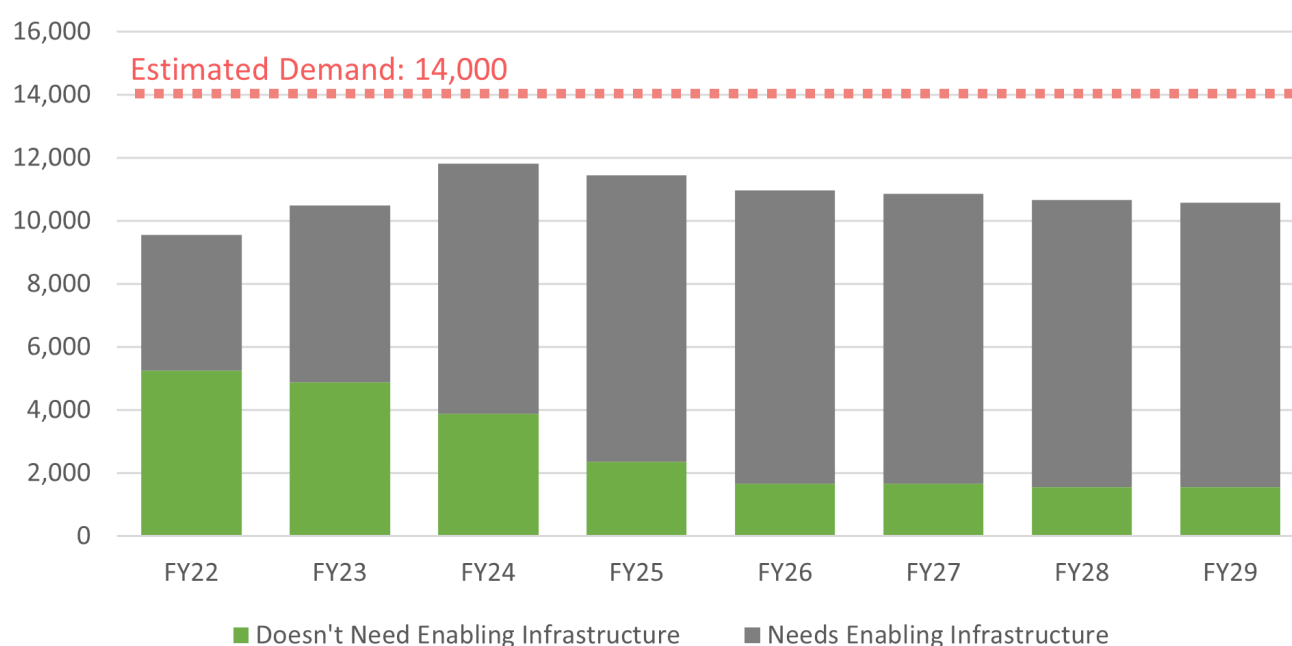


FIGURE 4: GREENFIELD LAND SUPPLY OUTLOOK WITH LOTS NEEDING ENABLING INFRASTRUCTURE
DEMAND ESTIMATES ADAPTED FROM NSW INTERGENERATIONAL REPORT - JUNE 2021

SOURCE: UDIA NSW

In April-May 2021, UDIA NSW, in collaboration with Infrastructure Development Consultants in Greater Western Sydney, ADW Johnson in the Hunter and Central Coast, and Cardno in the Illawarra-Shoalhaven, undertook *Building Blocks* a comprehensive study of large-scale enabling infrastructure across the Greater Sydney Megaregion. In each region, critical pieces of enabling infrastructure were identified and costed, and the accompanying number of lots able to be unlocked for development were calculated. Across the Greater Sydney Megaregion, \$1.4B of infrastructure projects were identified that would unlock 141,000 lots for development over a 10-year period. These high-impact infrastructure projects are needed to prevent supply falling further below demand.

UDIA NSW estimates up to 50,000 of the 141,000 lots identified in *Building Blocks* may also be impacted by land fragmentation, flooding, and additional constraints. To ensure demand can be met, new land rezonings need to accompany the timely delivery of enabling infrastructure.

1.3 RECOMMENDATIONS TO IMPROVE THE DELIVERY OF ENABLING INFRASTRUCTURE:

UDIA NSW supports the infrastructure contributions reforms being undertaken by the NSW Government to support timely infrastructure delivery. However, on its own, it will not be sufficient to remove the enabling infrastructure bottleneck from greenfield land supply. Other action is required:

Recommendation 1: Funding for Enabling infrastructure:

UDIA NSW recommends funding the enabling infrastructure identified in the UDIA *Building Blocks* reports for the Sydney Megaregion to support greenfield housing supply. These high-impact infrastructure projects represent a critical opportunity to bring new land into the supply pipeline. A full, costed list of the infrastructure projects is available in appendix 1.

Recommendation 2: Anticipate demand instead of reacting to demand:

We need to move away from the current approach of last minute (or later) delivery of enabling infrastructure, as it is delaying the supply of new homes and increasing their cost. Instead, we require a much clearer picture of where new homes are going to be delivered in the years ahead to plan and build the enabling infrastructure to support them.

Recommendation 3: Reform the decision making around major transport and enabling infrastructure business cases:

Major transport and enabling infrastructure delivery agencies inevitably prioritise their goals over broader objectives that would deliver larger benefits for the state. The NSW Government should reform decision making around enabling infrastructure capital programs so that these broader objectives are considered. This would be best enabled by the adoption of an ambitious, digitally enabled Urban Development Program tool. It can be used to undertake sophisticated modelling for rapid preparation of business cases for the required infrastructure so that relatively low risk investment decisions can be made in a timeframe that enables delivery of housing supply with the ultimate goal of managing affordability outcomes. This tool should be adopted throughout the Greater Sydney Megaregion.

Recommendation 4: Continue Infrastructure Contributions Reform:

The infrastructure contributions reform recommended by the NSW Productivity Commissioner should continue with a renewed focus on aligning delivery with homes and reducing costs of enabling infrastructure.

Reform the design and assurance process with a view to reduce timeframes to identify, design and deliver State funded infrastructure that supports housing growth.

Recommendation 6: Reform the NSW planning process:

The current NSW planning system is highly inefficient resulting in long delays, reduced supply and increased housing costs. The current reforms being undertaken will only deliver small benefits, not the step change required.

Two initial steps should be undertaken to speed things up:

1. The NSW Government should use its existing powers to hold Councils to account on housing delivery much more actively than is currently the case.
2. The NSW Government should co-ordinate its agencies to deliver timely assessments. Currently, referrals to government agencies can delay planning decisions for years.

1.4 ACCELERATE PRECINCTS AND PLANNING PROPOSALS

A key barrier to increased supply is the slow rate of new land being rezoned and unlocked for development. In Greater Sydney, precincts like Leppington Town Centre and Schofields Town Centre have spent four years just in the early investigations stage. Marsden Park North and Lowes Creek Maryland are yet to be finalised six years after being announced, whilst Ingleside is only just at the public exhibition stage after eight years. **Of the 16 residential greenfield precincts outstanding UDIA has tracked from DPIE's 'new approach to precinct planning' (2019), on average, 5.4 years has elapsed between their release/announcement to now. This is more than double what it would take if the process were being run efficiently.**

FOR LAND SUPPLY TO INCREASE TO THE NECESSARY LEVEL, THE PROCESS OF PRECINCT PLANNING MUST BE DRAMATICALLY ACCELERATED.

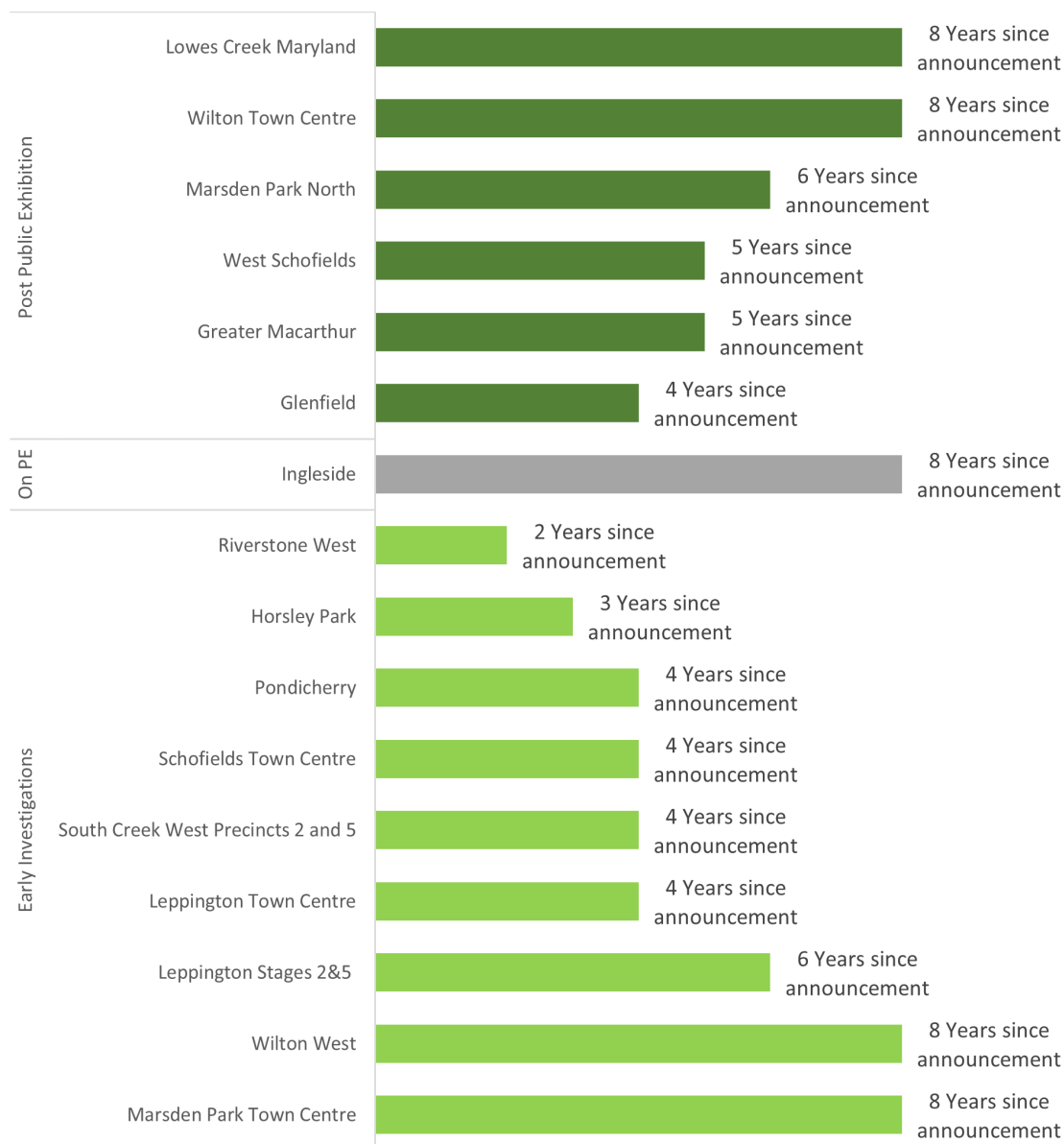


FIGURE 5: YEARS SINCE PRECINCT ANNOUNCEMENT BY PLANNING STAGE, SELECTED PRECINCTS

SOURCE: UDIA NSW

Throughout the Greater Sydney Megaregion, an estimated 73,000 lots are held by developers and are awaiting rezoning. Importantly for the current supply and affordability crisis, 5,000 per annum of these lots could be delivered within three years of rezoning. With supply expected to fall 3,200 lots short of demand, accelerating planning proposals and precincts to rezone residential land will be critical in boosting the pipeline of greenfield land to meet demand.

UDIA NSW has identified 32 locations which need to be rezoned by FY24, capturing both precincts and planning proposals. Eleven of those locations (see *figure 6*) are now urgent, with supply ready to be delivered in FY23 needing rezoning to progress. It takes 12-18 months for housing delivery to begin after rezoning occurs. **If the rezonings in figure 6 are missed by one year, 4,600 less lots will be delivered between FY23 and FY25 – further increasing an already significant supply shortfall.**

REZONING NEEDS TO OCCUR WITHIN THE BELOW LOCATIONS IN THESE FINANCIAL YEARS TO HAVE SUPPLY MEET THE FORECASTED LEVEL IN *FIGURE 1*.

Now	FY22	FY23	FY24
Appin	Calderwood	Avondale	Greenway
Catherine Fields	Cleveland	Leppington (Stages 3 & 4)	Horsley Stage 4
Glenmore Park	Cliftleigh	Marsden Park Town Centre	Moorebank East
Ingleside	Gilleston Heights	Milperra	Rossmore
Leppington (Stages 2 & 5)	Pondicherry	Oxley Ridge Northern Precinct	Wallalong
Lowes Creek Maryland	South Creek West	Sawyers Gully	
Marsden Park North	Tahmoor		
Newcastle Link Road	Thornton North		
Orchard Hills			
Pondicherry Tranche 41			
West Dapto Stage 3			
West Schofields			
Wilton Town Centre			

FIGURE 6: TIMELINE OF REQUIRED REZONING

SOURCE: UDIA NSW

BRINGING THE FY22, FY23, AND FY24 REZONINGS IDENTIFIED IN THE FIGURE 6 TIMELINE FORWARD BY ONE YEAR WILL UNLOCK AN ADDITIONAL 3,000 LOTS BY FY25.

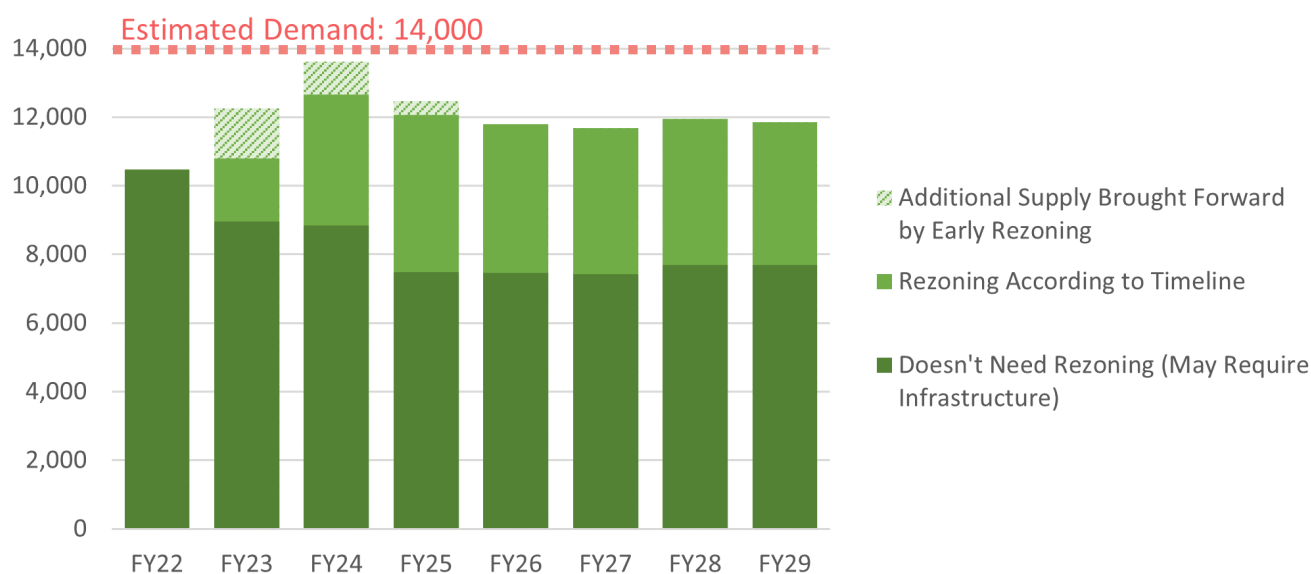


FIGURE 7: GREENFIELD SUPPLY OUTLOOK WITH THE BENEFIT OF EARLIER REZONING

SOURCE: UDIA NSW

New land supply is urgently needed across the Greater Sydney Megaregion over the next 3 years to meet the initial COVID demand response. Accelerating key rezonings would have a significant impact on maintaining affordability and supporting jobs in the greenfield housing industry.

1.5 RECOMMENDATIONS TO IMPROVE GREENFIELD HOUSING SUPPLY:

Recommendation 7: Bring forward planning proposal completions and precincts by one year:

As shown in *figure 7*, accelerating rezoning by one year will unlock an additional 3,000 lots, without negative impact on supply in the following years.

Recommendation 8: Create a Housing Supply Cabinet Subcommittee and Taskforce

There is insufficient coordination and accountability on the delivery of housing supply across the NSW Government. UDIA NSW recommends the State Government reintroduces the NSW Housing Supply Cabinet Subcommittee to oversee the delivery of sufficient homes per year to meet the demand set out in the Intergenerational report. The subcommittee should be supported by a Housing Supply Taskforce (as recommended by the NSW Productivity Commissioner) to bring together the Department of Planning, Industry and Environment, Treasury, Department of Premier and Cabinet and key delivery agencies including Transport for NSW; Sydney Water, Hunter Water and Central Coast water authorities; and Endeavour Energy and Ausgrid.

Recommendation 9: Publish a plan for rezonings

Currently, the NSW Government and Councils do not publish when a re-zoning will be delivered, nor the timing and progression of key milestones in the process. Putting this into the public domain will greatly improve accountability in the rezoning process and support the more reliable delivery of new homes.

Recommendation 10: Encourage developers to take the lead in planning of new precincts and identified housing investigation areas by allowing planning costs to be offset against future SIC contributions.

This practice was the model for planning of new precincts and has been abandoned by State Government. It should be reinstated to encourage developers to take the lead on planning where Councils or DPIE are failing to do so.

Recommendation 11: Review the growth centre boundaries in Sydney

2. SOUTH WEST SYDNEY AND GREATER MACARTHUR

2.1 GREENFIELD LAND SUPPLY OUTLOOK

Based on the strength of the greenfield market in the South West over the last 6 months, combined with the challenges facing the North West with the Minister for Planning currently freezing any rezonings due to flood evacuation concerns, UDIA NSW estimates that South West Sydney and Greater Macarthur needs to deliver 6,625 of the 14,000 lots needed in the Greater Sydney Megaregion per year. Significant steps toward enabling development are needed now to make that possible.

SOUTH WEST SYDNEY AND GREATER MACARTHUR NEEDS TO HAVE CRITICAL ENABLING INFRASTRUCTURE DELIVERED AND NEW LAND DEVELOPMENT FRONTS OPENED TO MEET DEMAND.

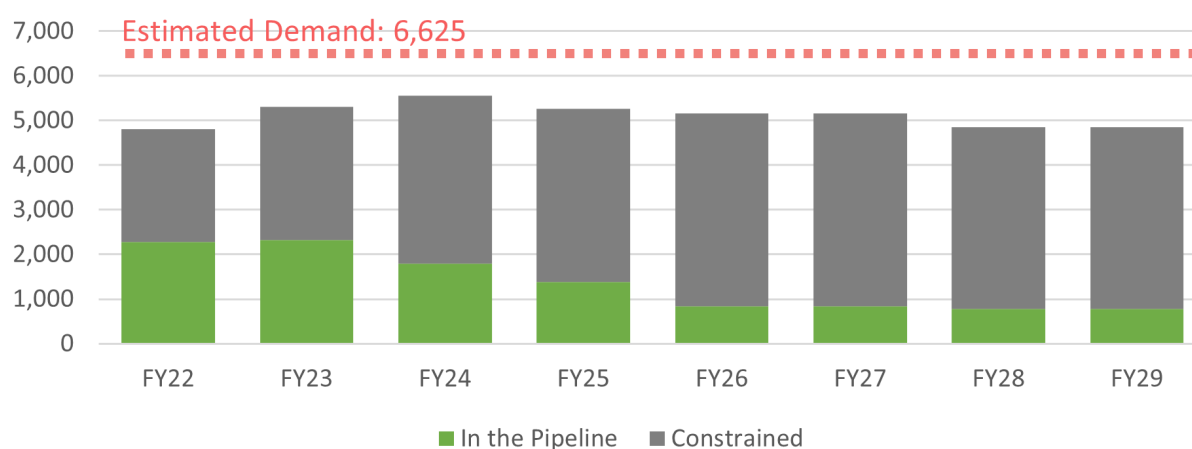


FIGURE 8: SOUTH WEST SYDNEY AND GREATER MACARTHUR GREENFIELD LAND SUPPLY OUTLOOK

SOURCE: UDIA NSW

Land needs to be unlocked in the short term and a reliable pipeline of future zoned and serviced land needs to be established. If all expected lots are delivered, including those currently facing infrastructure constraints, supply will fall short of demand in the South West and Greater Macarthur by **1,500** lots per annum. Even if current unmet demand is disregarded, at the expected rate of land release there will be **12,100** homes worth of unmet demand for greenfield housing in those regions by FY30 (*figure 9*).

WITHOUT ACTION, THERE WILL BE AN UNDERSUPPLY OF 12,100 GREENFIELD HOUSING LOTS RELATIVE TO DEMAND BY FY30 IN SOUTH WEST SYDNEY AND GREATER MACARTHUR.

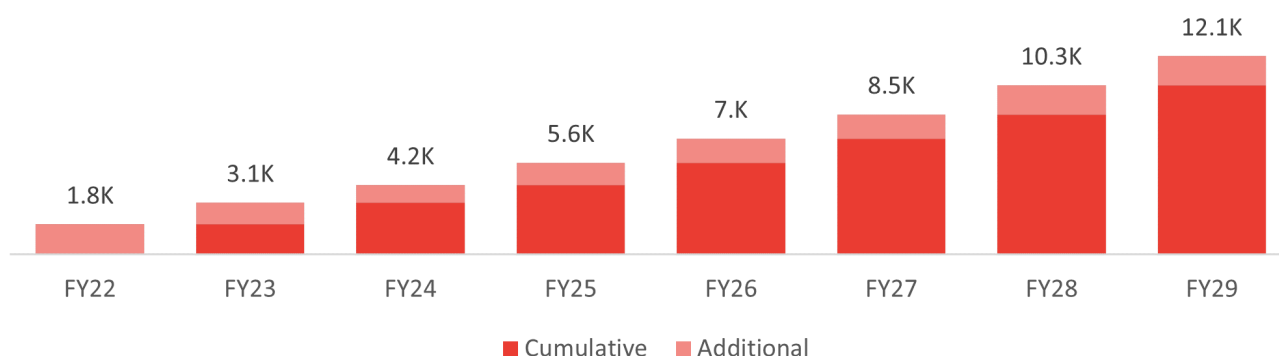


FIGURE 9: CUMULATIVE UNMET DEMAND IN THE SOUTH WEST SYDNEY AND GREATER MACARTHUR

SOURCE: UDIA NSW

2.2 ENABLING INFRASTRUCTURE

As shown in *figure 11* and *figure 12*, enabling infrastructure (sewer, water, power, roads) is a major constraint on the development of new homes in the South West and Greater Macarthur.

29,000 LOTS THAT ARE PROGRAMMED FOR DELIVERY IN THE SOUTH WEST AND GREATER MACARTHUR BY FY29 NEED ENABLING INFRASTRUCTURE TO BE DELIVERED BEFORE DEVELOPMENT CAN OCCUR.

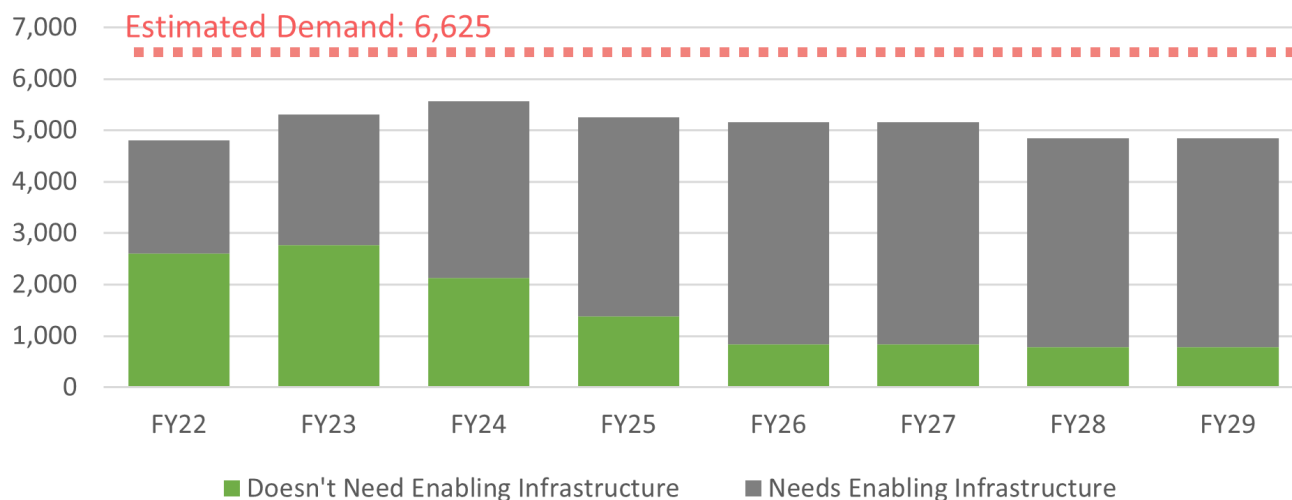


FIGURE 10: SOUTH WEST SYDNEY AND GREATER MACARTHUR LAND SUPPLY OUTLOOK WITH LOTS NEEDING ENABLING INFRASTRUCTURE
SOURCE: UDIA NSW

The three most significant constraints to development in South West Sydney and Greater Macarthur are sewer infrastructure, water infrastructure, and rezoning. 60 per cent of lots expected between FY22 and FY29 are constrained by sewer infrastructure, while 51 per cent are constrained by water infrastructure. Only 45 per cent of the lots are already rezoned. To deliver the significant increase in supply needed in the South West, infrastructure constraints need to be lifted and more land needs to be made available for development.

SIGNIFICANT ACTION IS REQUIRED TO DELIVER THE ENABLING INFRASTRUCTURE NEEDED FOR NEW GREENFIELD HOMES TO BE BUILT IN SOUTH WEST SYDNEY AND GREATER MACARTHUR.

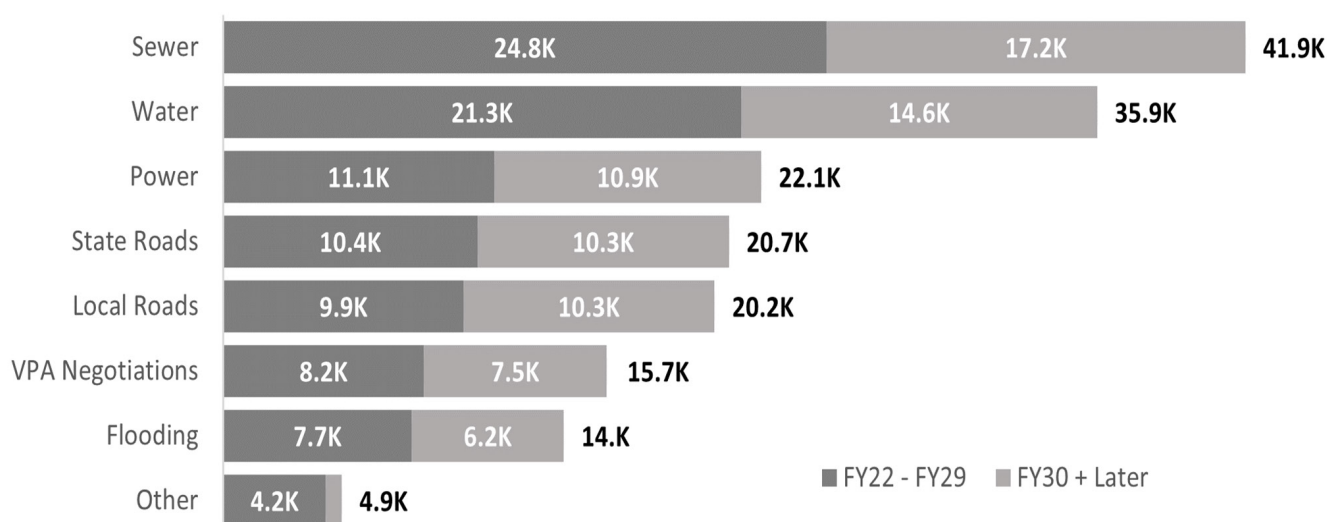


FIGURE 11: NUMBER OF LOTS IN SOUTH WEST SYDNEY AND GREATER MACARTHUR BY CONSTRAINT

SOURCE: UDIA NSW

2.3 PLANNING FOR NEW DEVELOPMENT

Key rezonings are urgently needed in the South West and Greater Macarthur, with Lowes Creek Maryland and Leppington (Stages 2 & 5) still yet to be finalised 6 years after announcement, and 7 years since Planning Proposals were lodged for rezonings in Appin. Delays have also been caused by the ‘*new approach to precincts*’ set out by the Department of Planning, Industry, and Environment, with progress previously made on precincts being lost or stalled. Pondicherry is facing a potential 12-months delay in going to exhibition due to the change.

FOR LAND SUPPLY IN THE SOUTH WEST AND GREATER MACARTHUR TO REACH DEMAND, THE PROCESS OF PRECINCT PLANNING MUST BE DRAMATICALLY ACCELERATED.



FIGURE 12: PRECINCTS IN THE SOUTH WEST AND GREATER MACARTHUR BY STAGE AND YEARS SINCE ANNOUNCEMENT
SOURCE: UDIA NSW

REZONING NEEDS TO OCCUR WITHIN THE BELOW LOCATIONS IN THESE FINANCIAL YEARS TO HAVE SUPPLY MEET THE FORECASTED LEVEL IN FIGURE 8.

Now	FY22	FY23	FY24
Appin	Pondicherry	Leppington (Stages 3 & 4)	Greenway
Catherine Fields	South Creek West	Oxley Ridge Northern Precinct	Moorebank East
Leppington (Stages 2 & 5)	Tahmoor		Rossmore
Lowes Creek Maryland			
Pondicherry Tranche 41			
Wilton Town Centre			

FIGURE 13: TIMELINE OF REQUIRED REZONINGS IN THE SOUTH WEST AND GREATER MACARTHUR

SOURCE: UDIA NSW

BRINGING THE FY22, FY23, AND FY24 REZONINGS IDENTIFIED IN THE FIGURE 13 TIMELINE FORWARD BY ONE YEAR WILL UNLOCK AN ADDITIONAL 1,350 LOTS BY FY25.

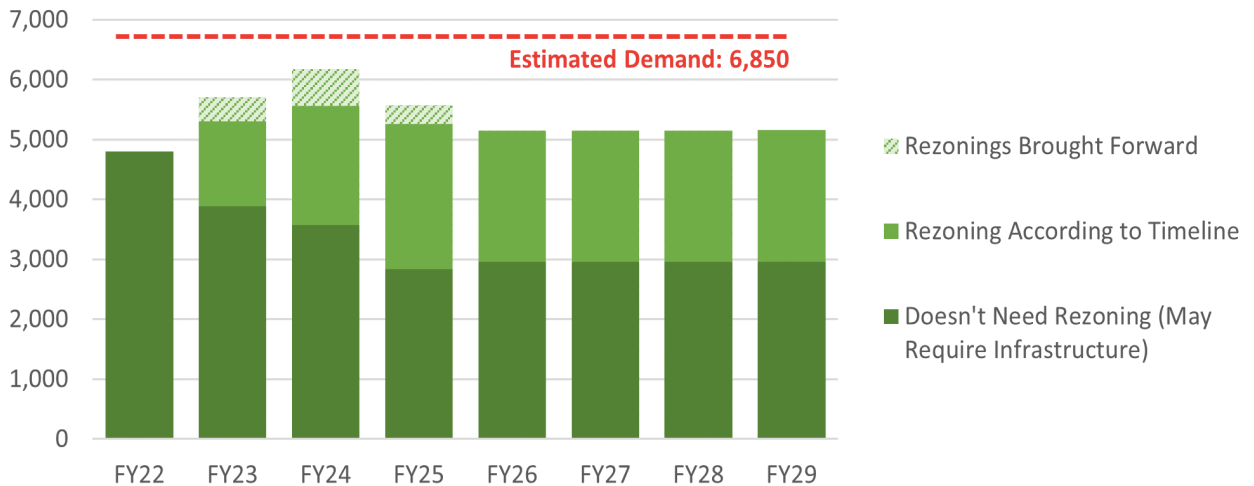


FIGURE 14: SOUTH WEST SYDNEY AND GREATER MACARTHUR GREENFIELD SUPPLY OUTLOOK WITH THE BENEFIT OF EARLIER REZONING
SOURCE: UDIA NSW

With Sydney's North West facing significant uncertainty around flooding, Sydney's South West is expected to deliver the largest proportion of the Megaregion's new greenfield supply over the next 8 years. There are significant opportunities in the South West to unlock land with a small number of high impact infrastructure projects and precinct rezonings, with the potential to bring more land into the pipeline if greater certainty can be given around future land release and infrastructure delivery.

2.4 RECOMMENDATIONS FOR SOUTH WEST SYDNEY AND GREATER MACARTHUR

RECOMMENDATION 12: FUNDING FOR THE ENABLING INFRASTRUCTURE PROJECTS IDENTIFIED IN BUILDING BLOCKS.

Austral-Leppington Interim Sewer Strategy: upgrade to Liverpool Wastewater Treatment Plant or storage tunnel in Austral.

Lowes Creek Maryland Sewer Pumping Station: sewer pump station required for South Creek West and Pondicherry.

Spring Farm Parkway Upgrade: important East-West Link required to unlock Greater Macarthur (North) and ease congestion on Narellan Road.

Wilton Water Reservoir: required to unlock further development in Wilton Precinct.

Wilton Sewer Treatment Plant: required to unlock further development in Wilton Precinct.

RECOMMENDATION 13: HIGH PRIORITY REZONINGS

Rezonings in Appin, Catherine Fields, Leppington, Lowes Creek Maryland, Pondicherry, and Wilton Town Centre are now urgent and are required to unlock a significant portion of development.

Rezonings are needed in eight additional precincts over the next four years and, if accelerated, could provide needed housing supply in the next three years without impacting future delivery.

3. NORTH WEST SYDNEY

3.1 GREENFIELD LAND SUPPLY OUTLOOK

North West Sydney has historically delivered more greenfield supply than the South West, but due to uncertainty around flooding constraints and significant challenges with enabling infrastructure, the supply outlook for the North West has reduced dramatically. The anticipated 2,400 lots per annum to be delivered in the region, even if all constraints are addressed, remains well below both the estimated demand of 3,000 lots and the average of 3,300 lots delivered per annum since 2016. Resolving the issues around flooding without sterilising new land developments in the North West will go a long way toward solving the projected undersupply of lots in the region.

NORTH WEST SYDNEY NEEDS INFRASTRUCTURE AND FLOODING CONSTRAINTS TO BE RESOLVED SO NEW HOMES CAN BE DELIVERED IN THE REGION.

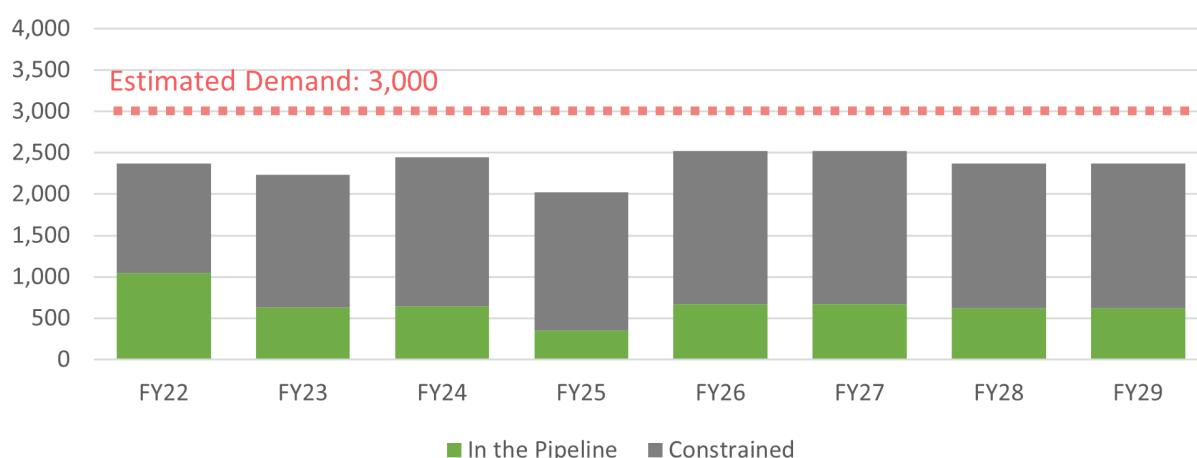


FIGURE 15: NORTH WEST SYDNEY GREENFIELD LAND SUPPLY OUTLOOK

SOURCE: UDIA NSW

North West Sydney is facing a significant undersupply of new housing. Even if current unmet demand is disregarded, at the expected rate of land release there will be **5,100** homes worth of unmet demand for greenfield housing in the North West by FY29 (*figure 16*).

WITHOUT ACTION, THERE WILL BE AN UNDERSUPPLY OF 5,100 GREENFIELD HOUSING LOTS RELATIVE TO DEMAND BY FY29 IN THE NORTH WEST.

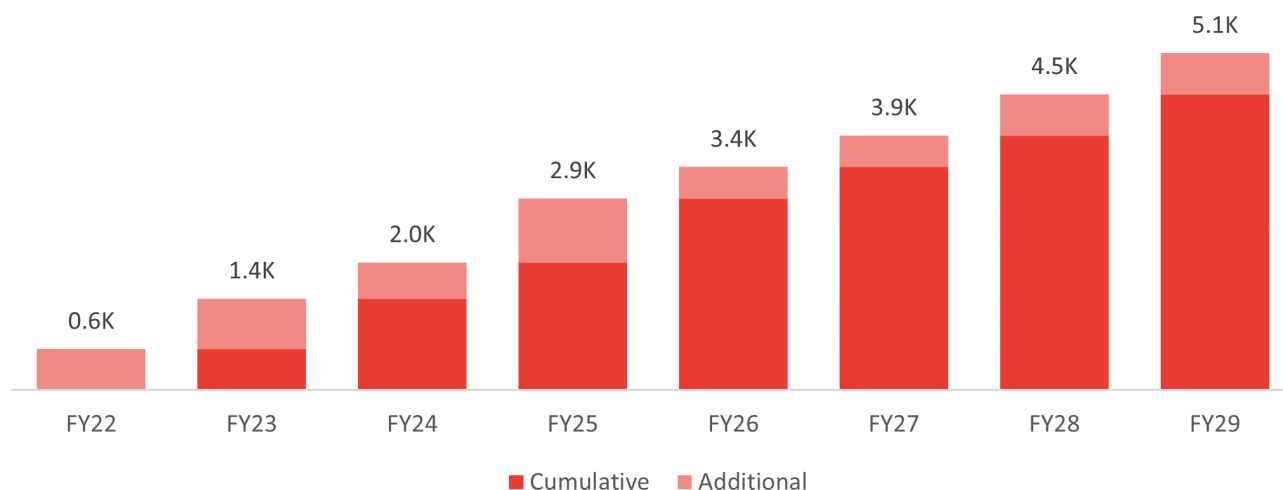


FIGURE 16: CUMULATIVE UNMET DEMAND IN THE NORTH WEST

SOURCE: UDIA NSW

3.2 ENABLING INFRASTRUCTURE

While flooding is identified as a constraint on anticipated supply in the North West only 20 per cent of the time, this is largely because developers are focusing in other regions whilst the flooding issues are resolved.

Of the anticipated projects in the North West, only 21 per cent are reported to be delivering without being constrained by infrastructure or other barriers. The three most reported constraints in the North West are local roads (44 per cent), power (38 per cent), and state roads (30 per cent).

12,700 LOTS THAT ARE PROGRAMMED FOR DELIVERY IN THE NORTH WEST BY FY29 NEED ENABLING INFRASTRUCTURE TO BE DELIVERED BEFORE DEVELOPMENT CAN OCCUR.

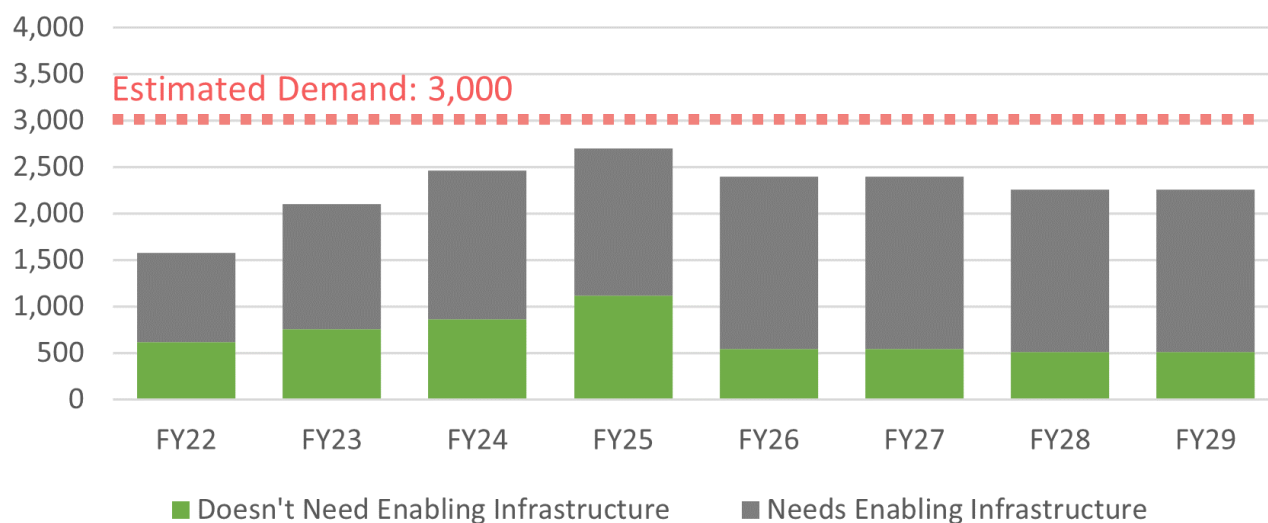


FIGURE 17: NORTH WEST SYDNEY LAND SUPPLY OUTLOOK WITH LOTS NEEDING ENABLING INFRASTRUCTURE

SOURCE: UDIA NSW

SIGNIFICANT ACTION IS REQUIRED TO DELIVER THE ENABLING INFRASTRUCTURE NEEDED FOR NEW GREENFIELD HOMES TO BE BUILT IN NORTH WEST SYDNEY.

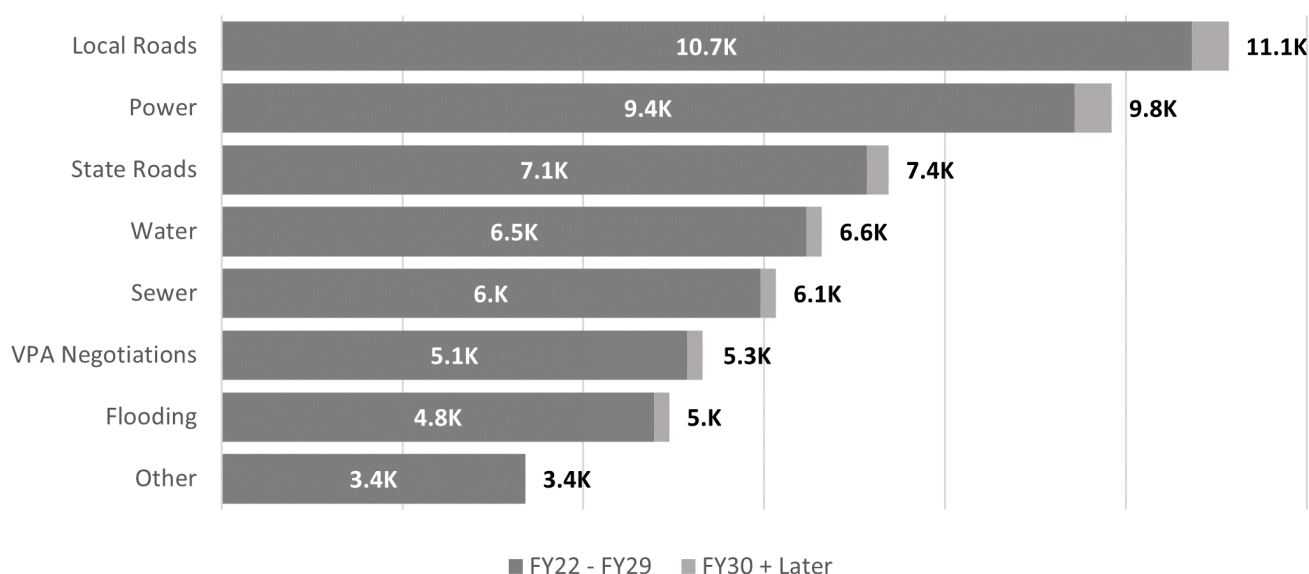


FIGURE 18: NUMBER OF LOTS IN THE NORTH WEST BY CONSTRAINT

SOURCE: UDIA NSW

3.3 PLANNING FOR NEW DEVELOPMENT

Key rezonings are needed in the North West, with both Marsden Park North, Marsden park Town Centre, and West Schofields having been in the precinct planning process for more than 5 years. Rezonings in Glenmore Park, Orchard Hills, and West Schofields are now needed urgently to unlock development, with opportunity for increased delivery if rezonings are accelerated.

PRECINCT PLANNING IN THE NORTH WEST NEEDS TO BE ACCELERATED DRAMATICALLY FOR LAND SUPPLY TO MEET DEMAND.



FIGURE 19: PRECINCTS IN THE NORTH WEST BY STAGE AND YEARS SINCE ANNOUNCEMENT

SOURCE: UDIA NSW

REZONING NEEDS TO OCCUR WITHIN THE BELOW LOCATIONS BY THESE FINANCIAL YEARS TO HAVE SUPPLY MEET THE FORECASTED LEVEL IN FIGURE 17.

Now	FY22	FY23	FY24
Glenmore Park		Marsden Park Town Centre	
Marsden Park North			
Orchard Hills			
West Schofields			

FIGURE 20: TIMELINE OF REQUIRED REZONING IN THE NORTH WEST

SOURCE: UDIA NSW

New land supply is urgently needed in the North West and across the Greater Sydney Megaregion. Accelerating these key rezonings is an opportunity to generate sorely needed supply without negatively impacting future delivery.

BRINGING FORWARD THE REZONINGS IDENTIFIED IN THE *FIGURE 20* TIMELINE FORWARD BY ONE YEAR WILL UNLOCK AN ADDITIONAL 500 LOTS BY FY25.

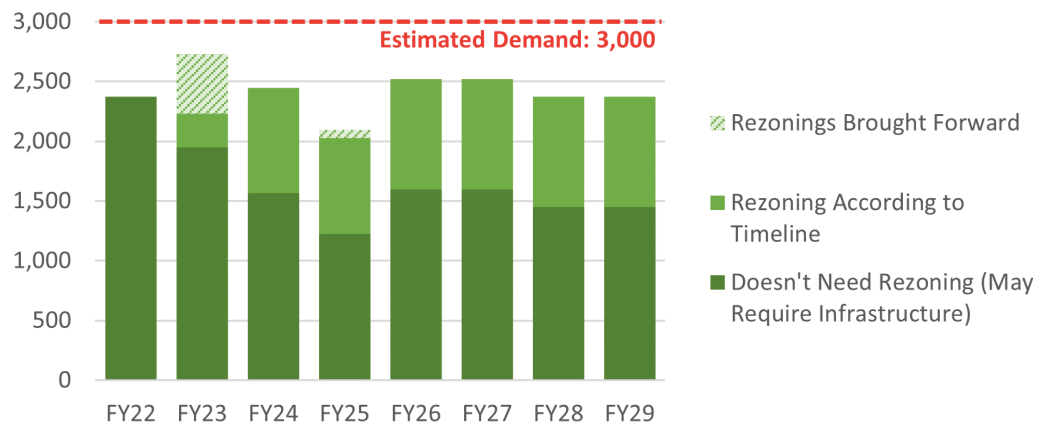


FIGURE 21: NORTH WEST SYDNEY GREENFIELD LAND SUPPLY OUTLOOK WITH ACCELERATED REZONING
SOURCE: UDIA NSW

Due to the high degree of uncertainty regarding constraints on development around flooding, the North West is expected to deliver significantly less new housing supply than it has since 2016. Enabling infrastructure needs to be delivered and remaining precincts rezoned to support supply whilst the flooding issues are resolved.

3.4 RECOMMENDATIONS FOR THE NORTH WEST:

RECOMMENDATION 14: FUNDING FOR THE ENABLING INFRASTRUCTURE PROJECTS IDENTIFIED IN *BUILDING BLOCKS*:

Richmond Road Upgrade: required to enable the development in Marsden Park North and West Schofields, as well as reinforce a key flood evacuation route.

Marsden Park North and West Schofields Sewer Pump Stations: catalyst infrastructure to unlock development in Marsden Park North and West Schofields.

Box Hill Substation: improvements to capacity needed in Riverstone East, Vineyard and Box Hill

The Water Lane: catalyst infrastructure to unlock development in Box Hill

RECOMMENDATION 15: HIGH PRIORITY REZONINGS

Glenmore Park, Orchard Hills, Marsden Park North, and West Schofields are now urgent and are required to unlock a significant portion of development.

Marsden Park Town Centre, if accelerated, could provide needed housing supply in the next three years without impacting future delivery.

RECOMMENDATION 16: RESOLVE FLOODING ISSUES

Resolve the flood and evacuation issues in the North West as soon as possible.

4. ILLAWARRA-SHOALHAVEN

4.1 GREENFIELD LAND SUPPLY OUTLOOK

Based on the COVID-fuelled uplift in demand for housing in the regions and the historical proportion of new lots delivered in the Illawarra-Shoalhaven, UDIA NSW estimates that 1,750 of the 14,000 new homes required across the Greater Sydney Megaregion will be needed in the Illawarra-Shoalhaven. With a significant portion of expected lots facing constraints on development, action is needed to deliver enabling infrastructure and unlock estates.

CRITICAL ENABLING INFRASTRUCTURE NEEDS TO BE DELIVERED AND NEW LAND DEVELOPMENT FRONTS OPENED TO MEET DEMAND IN THE ILLAWARRA-SHOALHAVEN.

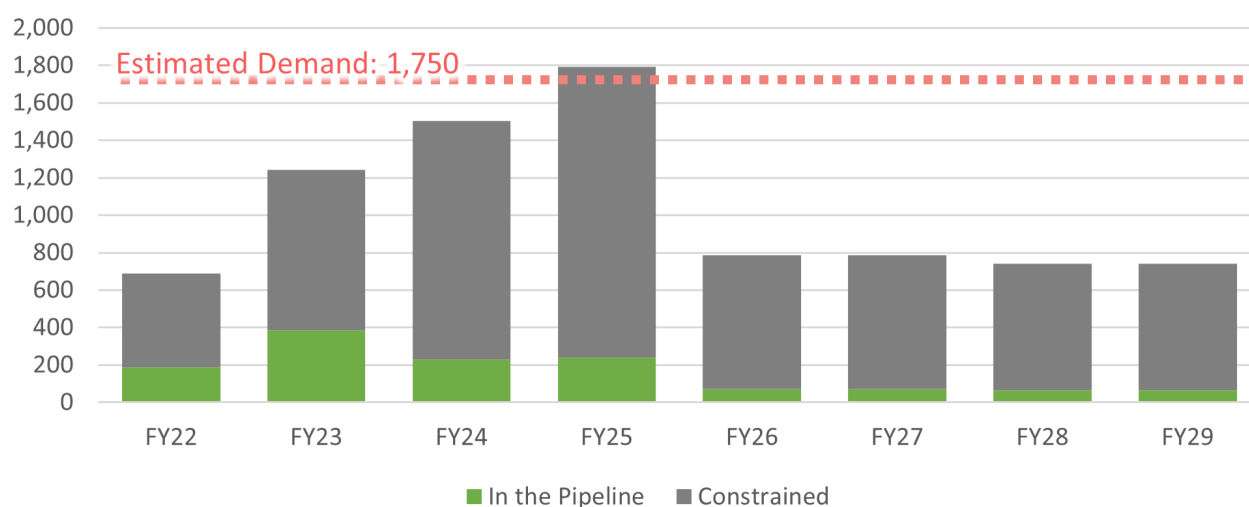


FIGURE 22: ILLAWARRA-SHOALHAVEN GREENFIELD LAND SUPPLY OUTLOOK

SOURCE: UDIA NSW

If all expected lots are delivered, including those currently facing infrastructure constraints, supply will fall short of demand in the Illawarra-Shoalhaven by 700 lots per annum. Even if current unmet demand is disregarded, at the expected rate of land release there will be 5,700 homes worth of unmet demand for greenfield housing in the Illawarra-Shoalhaven by FY30 (*figure 23*).

WITHOUT ACTION, THERE WILL BE AN UNDERSUPPLY OF 5,700 GREENFIELD HOUSING LOTS RELATIVE TO DEMAND BY FY30 IN THE ILLAWARRA-SHOALHAVEN.

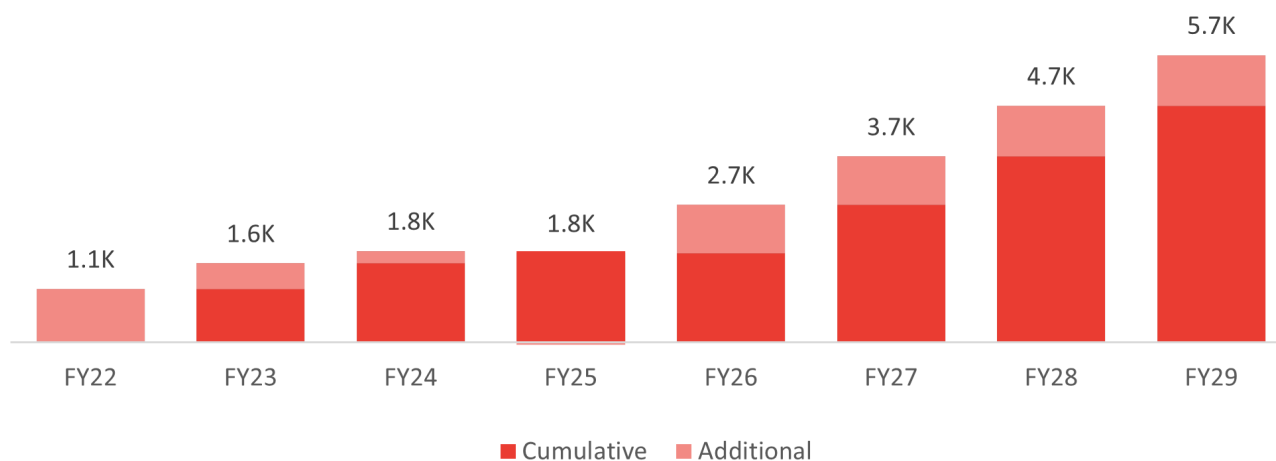


FIGURE 23: CUMULATIVE UNMET DEMAND IN ILLAWARRA-SHOALHAVEN

SOURCE: UDIA NSW

4.2 ENABLING INFRASTRUCTURE

As shown in *figure 24* and *figure 25*, enabling infrastructure (sewer, water, power, roads) is a major constraint on the development of new homes in the Illawarra-Shoalhaven. 67 per cent of expected lots are constrained by sewer infrastructure and 65 per cent by water infrastructure. Lengthy VPA negotiations are delaying development on 35 per cent of expected lots in the Illawarra-Shoalhaven.

7,000 LOTS THAT ARE PROGRAMMED FOR DELIVERY BY FY29 IN THE ILLAWARRA-SHOALHAVEN NEED ENABLING INFRASTRUCTURE TO BE DELIVERED.

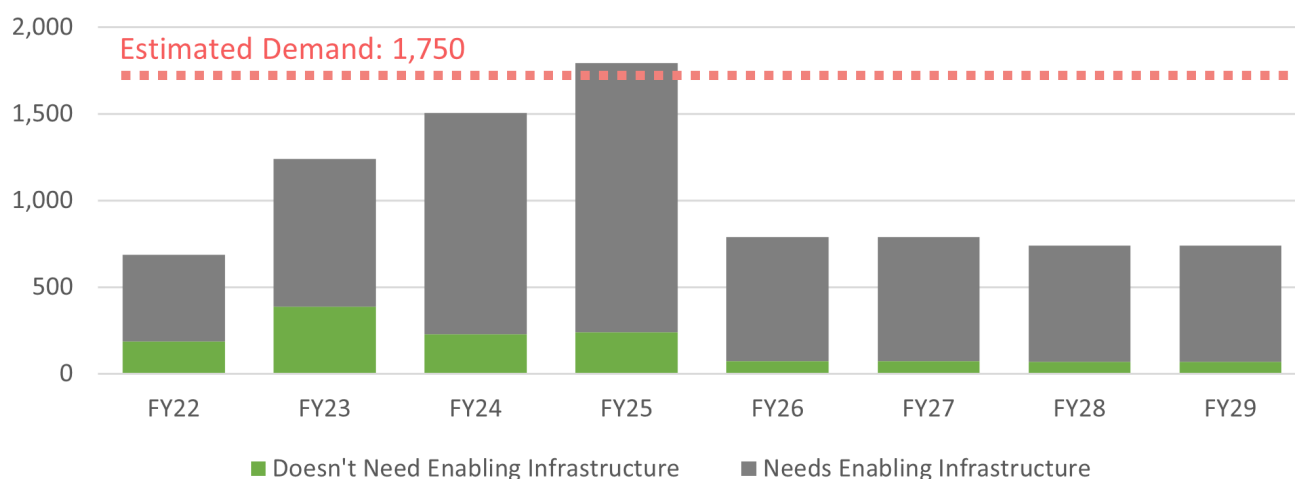


FIGURE 24: ILLAWARRA-SHOALHAVEN GREENFIELD LAND SUPPLY OUTLOOK WITH LOTS NEEDING ENABLING INFRASTRUCTURE
SOURCE: UDIA NSW

SIGNIFICANT ACTION IS REQUIRED TO DELIVER THE ENABLING INFRASTRUCTURE AND REMOVE CONSTRAINTS ON DEVELOPMENT FOR NEW GREENFIELD HOMES TO BE BUILT IN THE ILLAWARRA-SHOALHAVEN.

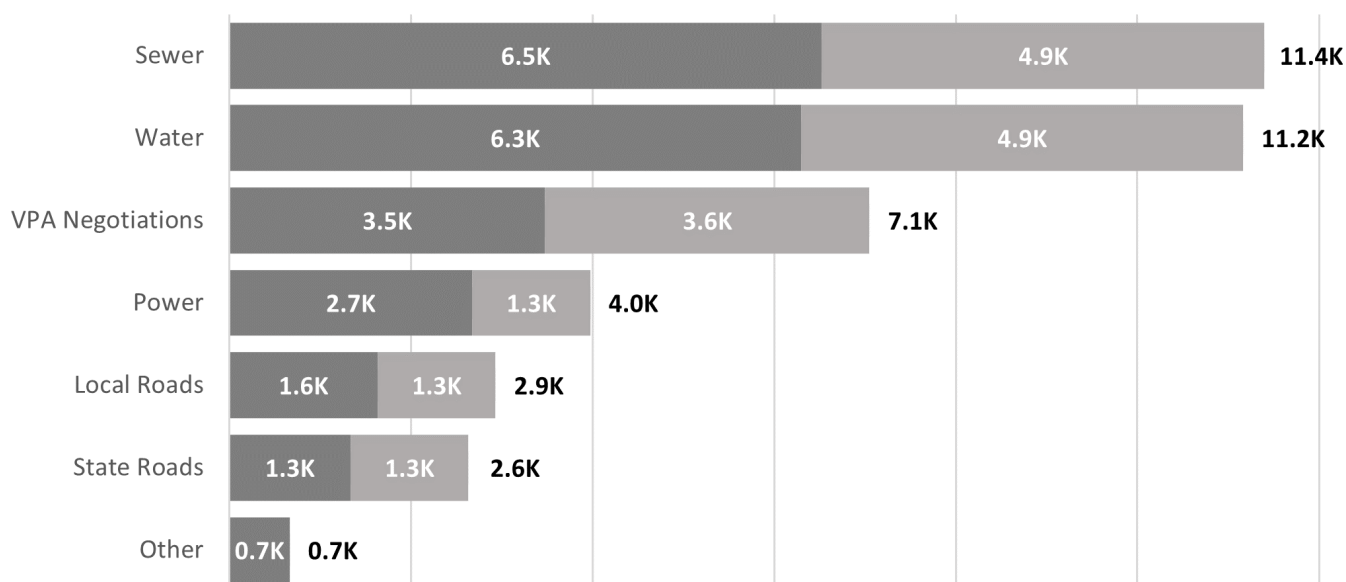


FIGURE 25: NUMBER OF LOTS IN ILLAWARRA-SHOALHAVEN WITH CONSTRAINTS

SOURCE: UDIA NSW

4.3 PLANNING FOR NEW DEVELOPMENT

The timely release of new land for residential development in the Illawarra-Shoalhaven is critical, both in unlocking land for delivery in the next four years and in building up a sustainable pipeline, as shown in *figure 26* and *27*.

REZONING NEEDS TO OCCUR WITHIN THE BELOW LOCATIONS IN THESE FINANCIAL YEARS TO HAVE SUPPLY MEET THE FORECASTED LEVEL IN *FIGURE 22*.

Now	FY22	FY23	FY24
West Dapto Stage 3	Calderwood	Avondale	Horsley Stage 4
	Cleveland		

FIGURE 26: TIMELINE FOR REQUIRED REZONINGS IN THE ILLAWARRA-SHOALHAVEN

SOURCE: UDIA NSW

BRINGING THE FY22, FY23, AND FY24 REZONINGS IDENTIFIED IN THE *FIGURE 26* TIMELINE FORWARD BY ONE YEAR WILL UNLOCK AN ADDITIONAL 600 LOTS BY FY25.

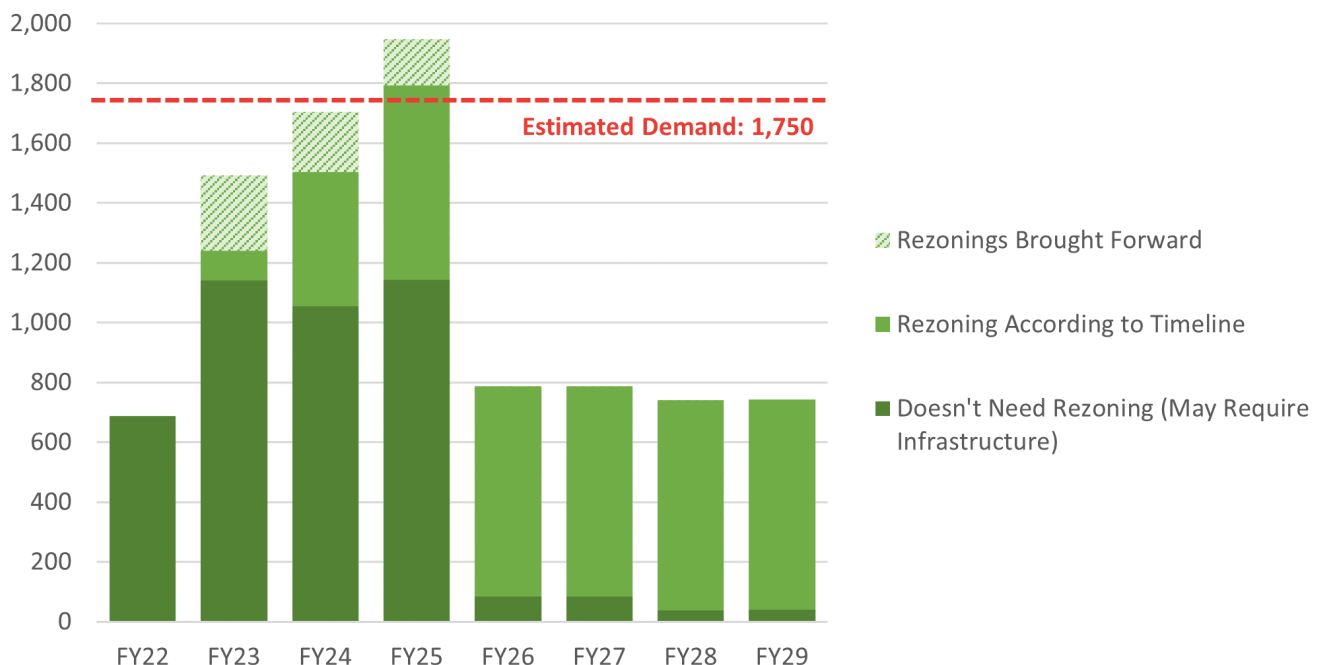


FIGURE 27: ILLAWARRA-SHOALHAVEN GREENFIELD LAND SUPPLY OUTLOOK WITH ACCELERATED REZONINGS

SOURCE: UDIA NSW

Accelerating key rezonings will unlock an additional 600 lots by FY25 without negatively impacting future development. This will significantly reduce the predicted undersupply of new greenfield homes in the Illawarra-Shoalhaven while supporting jobs and generating economic growth.

The Illawarra-Shoalhaven faces significant challenges in meeting the annual estimated demand for new greenfield housing. From FY22 – FY25, the key challenge is to deliver enabling infrastructure, with opportunities to boost supply through accelerated rezonings. Before supply drops off in FY25, the supply pipeline needs to be replenished through the faster release of new precincts.

4.4 RECOMMENDATIONS FOR THE ILLAWARRA-SHOALHAVEN:

RECOMMENDATION 17: FUNDING FOR THE ENABLING INFRASTRUCTURE PROJECTS IDENTIFIED IN *BUILDING BLOCKS*:

Kembla Grange and Yallah Marshall Mount Sewage Pumping Station and associated Trunk Gravity Mains: unlocks development in Huntley, Cleveland, and Avondale.

Avondale Reservoir and Trunk Main: unlock development in West Lake Illawarra.

Calderwood Sewage Pumping Station and associated Mains: unlock future development north of Calderwood Road.

Mt Terry Water Lead-In: unlocks development in Calderwood.

Moss Vale Road North and South Sewage Pumping Station: increase capacity in Nowra Bombaderry to allow for new development.

Moss Vale Road Reservoir and PW Upgrades: increase capacity to service new developments.

RECOMMENDATION 18: HIGH PRIORITY REZONINGS

West Dapto Stage 3 is now urgent.

Calderwood, Cleveland, Avondale, and Horsley could provide additional supply in the short term, if accelerated.

5. HUNTER AND CENTRAL COAST

5.1 GREENFIELD LAND SUPPLY OUTLOOK

With increased demand for regional locations in the post-COVID period, UDIA estimates that the Hunter and Central Coast will collectively account for demand of approximately 2,400 homes per annum out of the total 14,000 needed across the Greater Sydney Megaregion.

FOR THE HUNTER AND CENTRAL COAST TO MEET DEMAND, CONSTRAINTS ON DEVELOPMENT NEED TO BE LIFTED AND ENABLING INFRASTRUCTURE DELIVERED IN A TIMELY MANNER.

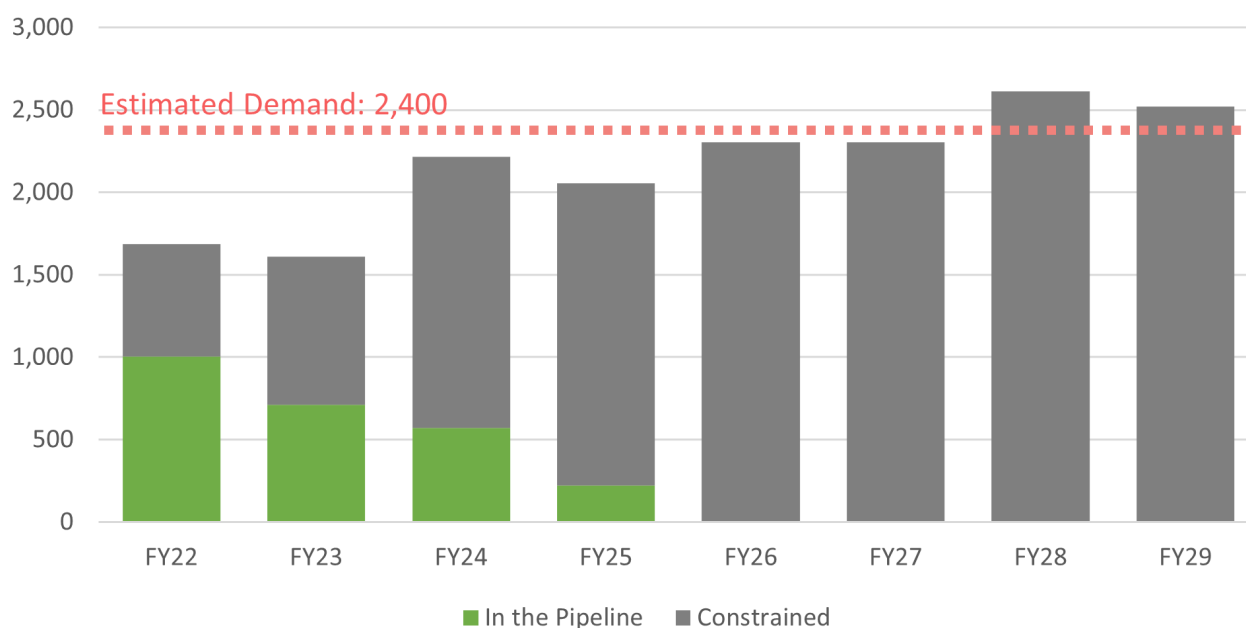


FIGURE 28: HUNTER AND CENTRAL COAST GREENFIELD LAND SUPPLY OUTLOOK

SOURCE: UDIA NSW

If all expected lots are delivered, including those currently facing infrastructure constraints, supply will fall short of demand in the Hunter and Central Coast by 240 lots per annum. Even if current unmet demand is disregarded, at the expected rate of land release there will be 2,000 homes worth of unmet demand for greenfield housing in the regions by FY30 (*figure 29*).

WITHOUT ACTION, THERE WILL BE AN UNDERSUPPLY OF 2,000 GREENFIELD HOUSING LOTS RELATIVE TO DEMAND BY FY30 IN THE CENTRAL COAST AND THE HUNTER.

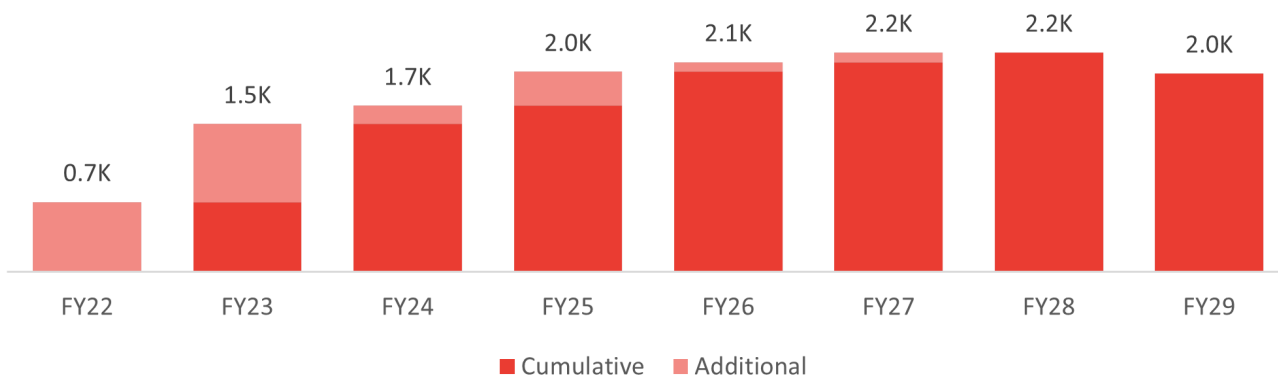


FIGURE 29: CUMULATIVE UNMET DEMAND IN HUNTER AND CENTRAL COAST

SOURCE: UDIA NSW

5.2 ENABLING INFRASTRUCTURE

Most of the new greenfield housing expected between FY22 and FY29 is constrained by enabling infrastructure. 70 per cent of lots programmed to be delivered over the period are constrained by state roads, 67 per cent by sewer infrastructure, 65 per cent by water infrastructure, and 50 per cent by power. Issues around flooding are also significant, impacting approximately 40 per cent of expected lots.

14,000 LOTS THAT ARE PROGRAMMED FOR DELIVERY BY FY29 NEED ENABLING INFRASTRUCTURE TO BE DELIVERED BEFORE DEVELOPMENT CAN OCCUR.

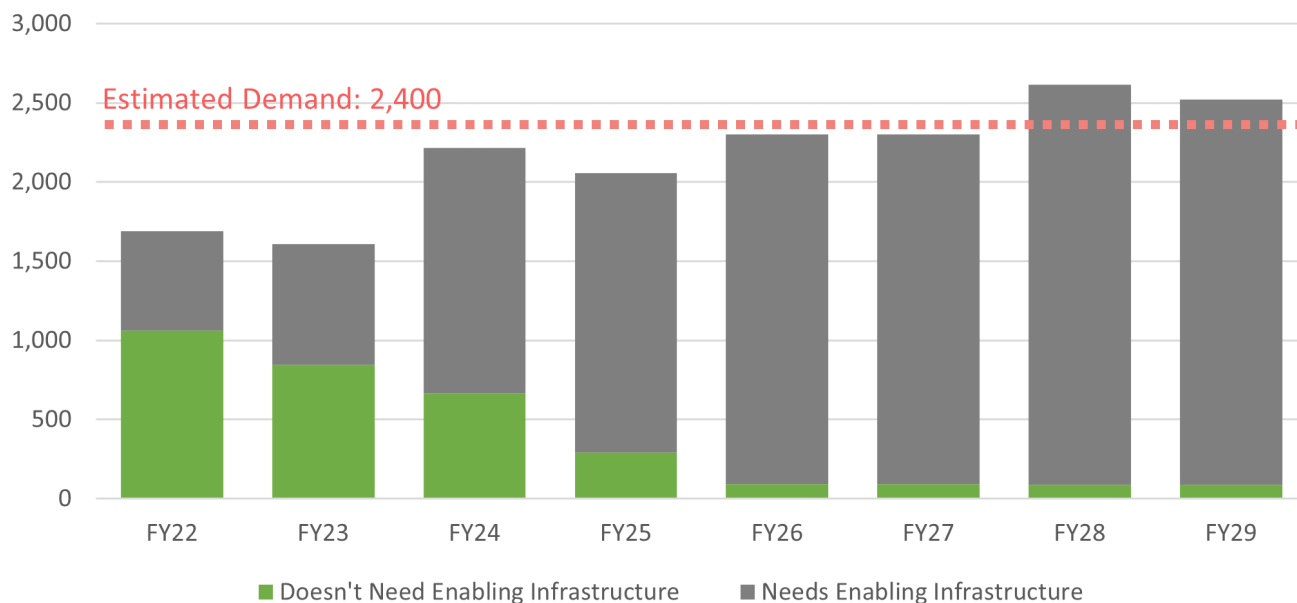


FIGURE 30: HUNTER AND CENTRAL COAST GREENFIELD LAND SUPPLY OUTLOOK WITH NUMBER OF LOTS NEEDING ENABLING INFRASTRUCTURE
SOURCE: UDIA NSW

SIGNIFICANT ACTION IS REQUIRED TO LIFT CONSTRAINTS ON DEVELOPMENT AND DELIVER THE ENABLING INFRASTRUCTURE NEEDED FOR NEW GREENFIELD HOMES TO BE BUILT IN THE HUNTER AND CENTRAL COAST.

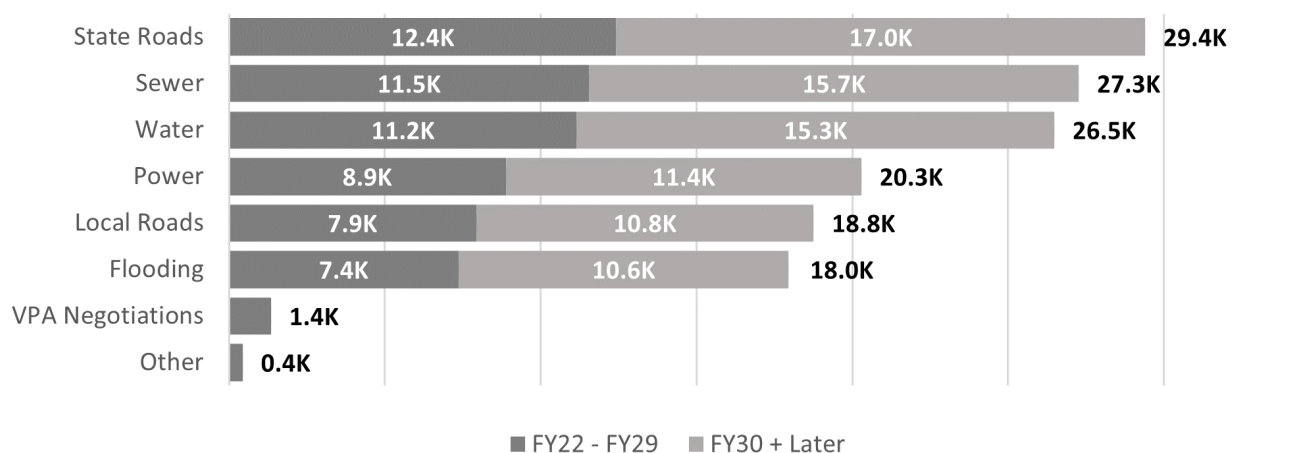


FIGURE 31: NUMBER OF LOTS IN HUNTER AND CENTRAL COAST BY CONSTRAINTS ON DEVELOPMENT
SOURCE: UDIA NSW

5.3 PLANNING FOR NEW DEVELOPMENT

Timely rezonings of at least six different locations over the next four years is critical to boosting the supply of new greenfield land in the Hunter and Central Coast. Land at the Newcastle Link Road now urgently needs rezoning, while Cliftleigh, Gilleston heights, Thornton North, Sawyers Gully, and Wallalong all present opportunities for increased supply through accelerating rezoning.

REZONING NEEDS TO OCCUR WITHIN THE BELOW LOCATIONS IN THESE FINANCIAL YEARS TO HAVE SUPPLY MEET THE FORECASTED LEVEL IN *FIGURE 28*.

Now	FY22	FY23	FY24
Newcastle Link Road	Cliftleigh	Sawyers Gully	Wallalong
Gilleston Heights			

FIGURE 32: TIMELINE OF REQUIRED REZONINGS IN THE HUNTER AND CENTRAL COAST SOURCE: UDIA NSW

BRINGING THE FY22, FY23, AND FY24 REZONINGS IDENTIFIED IN THE *FIGURE 32* TIMELINE FORWARD BY ONE YEAR WILL UNLOCK AN ADDITIONAL 315 LOTS BY FY25.

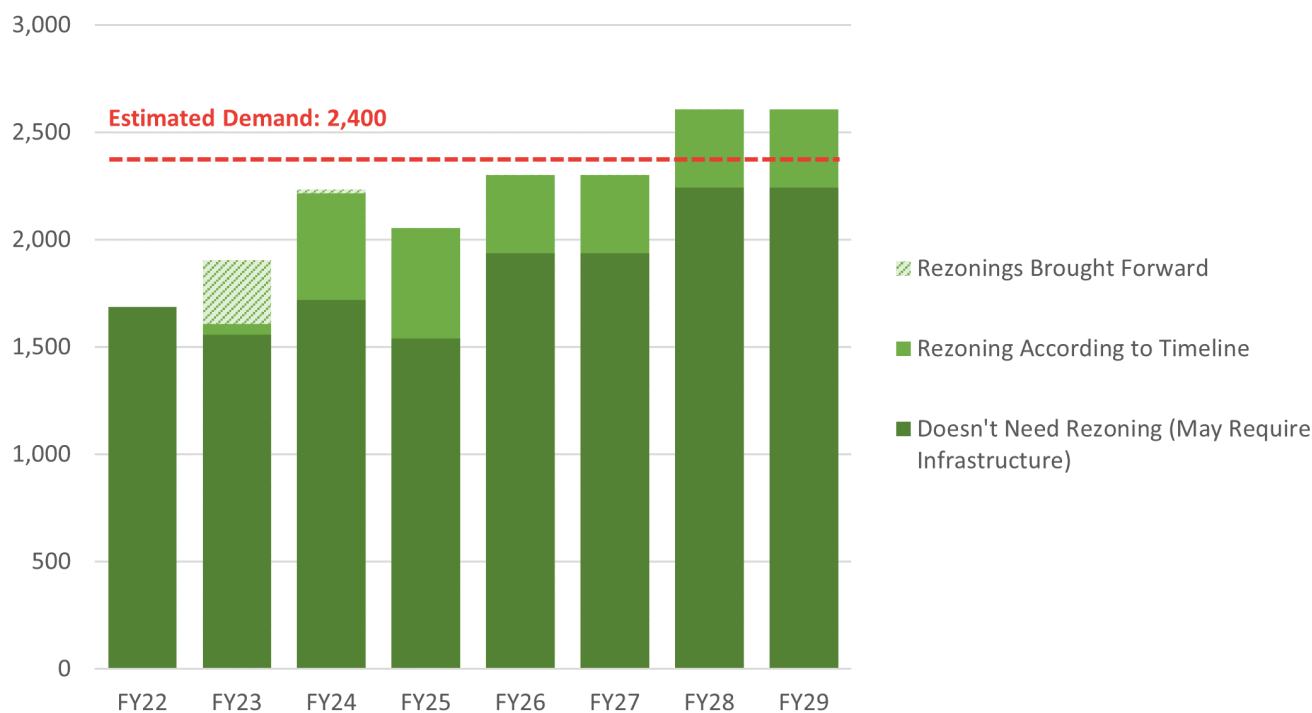


FIGURE 33: HUNTER AND CENTRAL COAST GREENFIELD LAND SUPPLY OUTLOOK WITH ACCELERATED REZONINGS SOURCE: UDIA NSW

Accelerating key rezonings by one year will bring forward supply without negatively impacting future delivery of new housing lots. This would aid the post-COVID economic recovery in the region, with 290 additional lots delivered in FY23, supporting jobs and economic output and reducing unmet demand.

With additional demand for new homes in the regions around Greater Sydney, the Hunter and Central Coast need to unlock a significant amount of land to meet demand. There are significant opportunities in the Hunter and Central Coast to unlock land with high impact infrastructure projects and timely rezonings, with the potential to bring more land into the pipeline if greater certainty can be given around future land release and infrastructure delivery.

5.4 RECOMMENDATIONS FOR THE HUNTER AND CENTRAL COAST:

RECOMMENDATION 20: FUND THE ENABLING INFRASTRUCTURE PROJECTS IDENTIFIED IN *BUILDING BLOCKS*:

HEX Link Road Upgrade: unlocks development in Cessnock.

Freemans Drive intersections upgrades: unlock development in Lake Macquarie.

Government Road Intersection: unlock future development in Maitland.

Anvil Creek trunk Water and Sewer: unlocks development in Cessnock.

More Projects are Identified in the Appendix.

RECOMMENDATION 21: HIGH PRIORITY REZONINGS

Rezoning of Newcastle Link Road now urgent.

Cliftleigh, Gilleston heights, Thornton North, Sawyers Gully, and Wallalong require rezoning by FY24, with opportunity to boost supply in the short term by accelerating rezoning across these areas.

6. CONCLUSION

The UDIA NSW Greenfield Land Supply Survey covered over 90 per cent of developable land in the Greater Sydney Megaregion. Compared to the 14,000 lots per annum required to meet the minimum demand identified by the NSW Government, the results are sobering and much needs to be done now to avoid a deep housing affordability crisis.

Even if all expected lots are delivered by developers up until FY29, including those currently requiring re-zoning or facing infrastructure constraints, supply will still fall short of demand by over 3,200 lots per annum (4,400 lots in FY22). At the current expected rate of land release there will be over 25,600 greenfield homes of unmet demand in the Greater Sydney Megaregion by FY30.

This includes a shortfall of 12,100 homes in the South West and Greater Macarthur Regions, 5,100 homes in the North West, 5,700 homes in the Illawarra-Shoalhaven, 2,000 homes across the Hunter and Central Coast, and 700 homes in smaller greenfield areas outside the growth centres within Greater Sydney.

The large size of the shortfall is a housing supply crisis. In the years ahead, it will result in significantly higher prices for mortgages and rents, lock ever larger numbers of people out of the housing market, put a squeeze on household finances and increase homelessness.

The NSW Government needs to act now to mitigate the crisis. Key steps that should be taken include:

- **More than halving the time taken for rezonings and precinct approvals facilitated by technology.**
- **Publishing deadlines for rezonings and precinct approvals, helping to focus energies and increasing certainty as to when decisions will be made.**
- **Funding key enabling infrastructure.**
- **Resolving the flooding issues in the North West Growth Centre.**
- **Better co-ordination of NSW Government agencies and Councils through the re-introduction of a Cabinet Sub-committee for Housing Supply and accompanying Housing Supply Taskforce, as recommended by the NSW Productivity Commissioner.**

The scale of the increase in housing supply required means that we do not have time for slow gradual improvements to the planning system. We need to see the NSW Government take the same sort of bold initiative in tackling the housing supply crisis that it demonstrated during the pandemic. Only then do we have a chance of seeing the sort of housing supply results that the people of NSW deserve and delivering the economic bridge to recovery beyond COVID-19.

7 APPENDIX: *BUILDING BLOCKS* PROJECTS

SOUTH WEST GROWTH CENTRE

Infrastructure	Project Stage	Cost	Lot Yield (Within 3 Yrs)	Lot Yield (Total)	Cost Per Lot	Comment
Interim Sewer Strategy	Proposed	TBC	3,000	3,000	TBC	Upgrade to Liverpool Wastewater Treatment Plant or storage tunnel in Austral. Current Infrastructure has 1,700 lot limit which has already been allocated.
Lowes Creek Maryland Sewer Pumping Station	Concept Design	\$30M	12,000	35,000	\$11,250	Sewer Pump Station required for South Creek West and Pondicherry.

GREATER MACARTHUR

Infrastructure	Project Stage	Cost	Lot Yield (Within 3 Yrs)	Lot Yield (Total)	Cost Per Lot	Comment
Spring Farm Parkway Upgrade	Proposed	\$128M	6,000	15,000	\$21,350	Key East-West Link required to unlock Greater Macarthur (North) and ease congestion on Narellan Road

WILTON

Infrastructure	Project Stage	Cost	Lot Yield (Within 3 Yrs)	Lot Yield (Total)	Cost Per Lot	Comment
Wilton Water Reservoir	Concept Design	\$35M	5,500	16,000	\$6,350	Catalyst required to unlock development in Wilton Precinct.
Wilton Sewer Treatment Plant	Proposed	\$50M	16,000	16,000	\$3,150	Catalyst required to unlock 16,000 in Wilton Precinct.

NORTH WEST GROWTH CENTRE

Infrastructure	Project Stage	Cost	Lot Yield (Within 3 Yrs)	Lot Yield (Total)	Cost Per Lot	Comment
Richmond Road Upgrade	Proposed	\$70M	8,000	8,000	\$8,750	Required to enable the rezoning of Marsden Park North and West Schofields, as well as reinforce a key flood evacuation route.
Marsden Park North and West Schofields Sewer Pump Stations	Concept Design	\$40M	8,000	8,000	\$5,000	Catalyst required to unlock development in Marsden Park North and West Schofields.
Box Hill Zone Substation	Concept Design	\$38M	10,000	10,000	\$3,800	Required to Free up capacity in Riverstone East, Vineyard and Box Hill
The Water Lane	Concept Design	\$32M	1,200	1,200	\$26,500	Catalyst Required to unlock 1,200 Lots in Box Hill

WEST LAKE ILLAWARRA

INFRASTRUCTURE	PROJECT STAGE	COST	LOT YIELD (Unlocked within 3 years)	LOT YIELD (Total)	COST PER LOT
Kembla Grange and Yallah Marshall Mount Sewage Pumping Station and associated Trunk Gravity Mains	Strategic Planning	\$56M	5,000	14,500	\$3,860
Avondale Reservoir and Trunk Main	Option Planning	\$20M	5,100	7,700	\$2,600
Calderwood Sewage Pumping Station, Rising Main and Trunk Main	Strategic Planning	\$18M	1,900	4,500	\$4,000
Mt Terry Water Lead-In	Concept Planning	\$2.6M	1,200	1,200	\$2,170

NOWRA-BOMBADERRY

INFRASTRUCTURE	PROJECT STAGE	COST (\$M)	LOT YIELD (Unlocked within 3 years)	LOT YIELD (Total)	COST PER LOT
Moss Vale Road North and South SPS	Detailed Design	\$26.0	3,500	3,500	\$7,430
Moss Vale Road Reservoir and Potable Water upgrades	Concept Design	\$14.0			\$4,000

HUNTER

Infrastructure	Release Area	LGA	GNMP Priority	HWC Connection Timing
HWC Draft Water Strategy - Lochinvar	Lochinvar	Maitland	Yes	0 - 5 Years
HWC Draft Wastewater Strategy - Lochinvar	Lochinvar	Maitland		
New England Highway Restricted Median	Lochinvar	Maitland		
HWC Water Strategy 19205-WAT-001	Thornton North	Maitland	Yes	0 - 5 Years
HWC Wastewater Strategy 19205-SEW-001	Thornton North	Maitland		
Intersection - Government Road & Raymond Terrace Road	Thornton North	Maitland		
Intersection - McFarlanes Road & Raymond Terrace Road	Thornton North	Maitland		
HWC Water Strategy - Minmi	Minmi	Newcastle/ Lake Macquarie	Yes	0 - 5 Years
HWC Wastewater Strategy - Minmi	Minmi	Newcastle/ Lake Macquarie		
Intersection - Newcastle Link Road / Minmi Road	Minmi	Newcastle/ Lake Macquarie		
WICA Infrastructure & Local Water Centre	Watagan Park	Lake Macquarie	Yes	0 - 5 Years
WICA Infrastructure & Local Water Centre	Watagan Park	Lake Macquarie		
Ausgrid Detail Design Approved Security of Supply Loop	Watagan Park	Lake Macquarie		
Intersection - Freemans Dr & Alton Road	Watagan Park	Lake Macquarie		
Intersection - Freemans Dr & Deaves Road	Watagan Park	Lake Macquarie		
Intersection - Freemans Dr & Stockton Rd (R/About)	Watagan Park	Lake Macquarie		
Intersection - Freemans Dr at Central Access	Watagan Park	Lake Macquarie		
Intersection - Freemans Dr & Newport Road	Watagan Park	Lake Macquarie		
HWC Water Servicing Strategy - July 2010	Catherine Hill Bay, Wallarah Peninsula and Middle Camp	Lake Macquarie	Yes	0 - 5 Years
HWC Wastewater Servicing Strategy - July 2010	Catherine Hill Bay, Wallarah Peninsula and Middle Camp	Lake Macquarie		

HUNTER

Infrastructure	Release Area	LGA	GNMP Priority	HWC Connection Timing
HWC Water Strategy - 50046	Anambah	Maitland	Yes	5 - 10 Years
HWC Wastewater Strategy - 50046	Anambah	Maitland		
Anambah Road Feeder Upgrade and Overhead Security of Supply Loop	Anambah	Maitland		
Anambah Road Upgrade	Anambah	Maitland		
Intersection Anambah Rd & Mustang Dr	Anambah	Maitland		
Western Link Road	Anambah	Maitland		
HWC Water Servicing Concept - Kurri Hydro Rezoning	Kurri Hydro	Cessnock/Maitland	Yes	After 10 Years
HWC Wastewater Servicing Concept - Kurri Hydro Rezoning	Kurri Hydro	Cessnock/Maitland		
Feeder Upgrade Concept Design - Kurri Hydro Rezoning	Kurri Hydro	Cessnock/Maitland		
Intersection - Main/Cessnock Rd & Road Upgrade	Kurri Hydro	Cessnock/Maitland		
McLeod Road Upgrade	Kurri Hydro	Cessnock/Maitland		
Bowditch Road Upgrade	Kurri Hydro	Cessnock/Maitland		
William Tester Drive - Flood Free Access	Kurri Hydro	Cessnock/Maitland		
WICA Infrastructure & Local Water Centre	Huntlee	Cessnock/ Singleton	No	0 - 5 Years
WICA Infrastructure & Local Water Centre	Huntlee	Cessnock/ Singleton		
Wine Country Dr Upgrades	Huntlee	Cessnock/ Singleton		
Northern Access Road	Huntlee	Cessnock/ Singleton		
HEX Link Road Upgrades	Huntlee	Cessnock/ Singleton		
HEX Branxton Interchange Upgrade	Huntlee	Cessnock/ Singleton		
HWC Draft Water Strategy - Bellbird North	Bellbird North	Cessnock	No	0 - 5 Years
HWC Draft Wastewater Strategy - Bellbird North	Bellbird North	Cessnock		
Mount View Drive Upgrade	Bellbird North	Cessnock		
Mount View Drive Intersections	Bellbird North	Cessnock		
Oakey Creek Road Upgrade	Bellbird North	Cessnock		
Wollombi Road Upgrade and Intersection Upgrades	Bellbird North	Cessnock		
Additional Car Parking	Bellbird North	Cessnock		
HWC Wastewater Pump Station Detail Design Approval	Radford Park	Singleton	No	0 - 5 Years
HWC Water Strategy 2016-024	Murrays Rise	Singleton	No	0 - 5 Years



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