

For the
community
creators

Growth Areas Infrastructure Requirements Report

Perth Metropolitan Area
September 2024



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The Urban Development Institute of Australia (UDIA WA) acknowledges the traditional custodians of the land on which we work, the Whadjuk people of the Noongar Nation. We also acknowledge the traditional Custodians across Western Australia and their continuing connection to the land and waters where our members operate.

We wish to acknowledge the strengths of their continuing culture and offer our respects to Elders past, present and emerging.

Executive Summary

Lead infrastructure is a crucial component of a development-ready pipeline. Identifying these ‘building blocks’ and working collaboratively to plan, coordinate and deliver infrastructure at the right time is essential to catalyse development for the creation of much-needed new homes.

To aid this, UDIA WA has progressed work to identify the crucial enabling infrastructure required to unlock land for housing supply in key growth areas across the Perth Metropolitan Region. If funded, these infrastructure packages would provide a strong foundation to accelerate the creation of tens of thousands of new homes.

The following table summarises the immediate enabling infrastructure requirements within the key growth areas which are explored in greater depth through this document.

The identified enabling infrastructure formed a key component of UDIA WA’s 2024-25 Pre-Budget Submission and 2025 State Election Platform. UDIA WA has been actively engaging with the State Government on these priorities and will continue advocating for an enhanced mechanism for strategic infrastructure coordination and for the planning, funding and delivery of infrastructure at the right time to ensure a sustainable pipeline of forward housing supply.

Immediate Priority Enabling Infrastructure

North-East Corridor North Ellenbrook and Bullsbrook	- Multiple wastewater pump/transfer stations and sewer trunk infrastructure to connect into Barrambie Way. - Extension of water reticulation trunk mains. - Zone substation upgrades and feeder extensions. - Railway Parade and Warbrook Road upgrades. - Bring forward North Ellenbrook Interchange.
North-West Corridor East Wanneroo	- Jandabup ‘A’ and ‘D’ wastewater pump stations and interim pressure mains. - Wanneroo Reservoir upgrade. - Transmission line upgrades and construction of zone substation and HV network feeder extensions. - Construction of groundwater management system. - Planning for the ultimate Jandabup A pump station.
Southern Corridor Mundijong and East Wellard	- Mundijong Road upgrade (including intersections). - District level wastewater pump station to Rockingham Treatment Plant. - Planning of future substation site. - Wastewater pump station and pressure main.

An initial investment of \$421M over four years (\$110M already committed) could unlock these three key growth corridors to ultimately deliver approximately 89,500 new homes.



3 Key
Growth corridors
unlocked



\$421M
Investment
over four years



90K
New homes
unlocked

Introduction

THE PROBLEM AND OPPORTUNITY

Perth's greenfield land market has been recording strong growth in demand since September 2022. However, dwelling approvals, commencements and completions remain significantly down on the long-run average and across the March and June 2024 quarters, lot availability has dropped to below the record lows seen in 2006¹. It continues to be challenging to bring lots to the market quick enough, with new stages generally oversubscribed and estates trading out.

With this and Western Australia's population continuing to grow at a rate exceeding that of any other state or territory in the nation, supply will continue to not keep pace with demand. All forms of supply, in both greenfield and infill locations, are urgently needed to meet the growing and evolving needs of our population and provide relief to a market in a critical state.

There is a perception that there is plenty of land available that is zoned for urban or future urban development however, the reality is not all that land can be developed into housing due to a myriad of constraints. UDIA's National Housing Pipeline (NHP) Perth and Peel Pilot Report released this year highlighted that one quarter of undeveloped urban zoned land in the Perth Metro Area is identified as being fundamentally constrained. A further 18% of all potential future urban land, such as land in planning investigation areas and zoned as urban deferred, is identified as fundamentally constrained. That equates to between 150,000 to 200,000 potential new homes that cannot be realised.

The NHP pilot also identified a further 20% of undeveloped urban zoned or potential future urban land that has 'other' types of constraints, which will prove challenging to the delivery of new homes. Given these constraints, and as greenfield land parcels become increasingly fragmented, delivering development together with appropriate infrastructure is becoming increasingly difficult and we need a greater focus on addressing constraints wherever we can to unlock land for new homes.

This is also impacted by the 'just in time' infrastructure planning and funding approach of service agencies. This current approach, and lack of holistic understanding of the development pipeline intentions, impacts capacity to address:

- issues associated with land ownership fragmentation, which impact on the ability of industry to fund enabling infrastructure upfront;
- requirements for service agency commitment ahead of traditional planning framework requirements;
- State Government funding constraints – with submissions to Infrastructure Australia typically needing to exceed \$100 million, without packaging strategically important items, we will continue to miss opportunities for Federal funding such as through the National Housing Infrastructure Facility (NHIF) Critical Infrastructure (CI) Fund; and
- the need for industry and government to collaboratively leverage infrastructure to deliver timely housing supply in identified, key growth areas.

It is crucial that infrastructure coordination, funding and delivery align with development pipeline intentions for undeveloped urban zoned land and potential future urban land to enable early planning for residential projects and the delivery of much needed homes.

To do this effectively, there is a need to shift to an 'at the right time' approach to infrastructure planning and funding that will enable industry to:

- Bring new housing to the market faster than currently possible;
- Unlock diverse and affordable housing options, delivered below the Perth median house price;
- Work towards the consistent availability of land supply to the market; and
- Support a collaborative response to WA's housing crisis.

¹UDIA WA, 2024. Urban Development Index, June 2024

THE APPROACH

To identify the critical infrastructure building blocks for key growth areas, a Working Group was formed with members of UDIA WA's Infrastructure and Masterplanned Communities committees. It comprised developers, engineers and planners to ensure broad expertise and a holistic view.

The Working Group analysed different development areas across the Perth Metropolitan region which could deliver significant housing supply but that were constrained by a lack of infrastructure.

The selection of initial focus growth areas, and the associated critical enabling infrastructure items, was informed by consideration of:

- the planning framework requirements;
- capacity to fund (with a focus on more significant infrastructure items, as opposed to business as usual); and
- where removal of the infrastructure burden would unlock development due to the current cost base.

Ultimately, it was determined that for the inaugural report the following areas would be included:

- East Wanneroo
- North Ellenbrook
- Bullsbrook
- East Wellard
- Mundijong

These are growth areas where a significant amount of housing could be unlocked in multiple projects if the enabling infrastructure constraints can be addressed.

In future reporting work, consideration will continue to be given to other areas of interest and will be added as the situation develops in areas such as:

- Yanchep
- Wungong
- Karnup
- South West Region

In addition to the above, we acknowledge the importance of infill development in the greater puzzle that is unlocking further supply within Perth. The constraints on infill development, predominantly within Perth, are different in nature and through our Infill Development and Precincts Committee, UDIA WA will continue identify opportunities to increase the viability of medium and high density infill projects and accelerate the delivery of diverse supply.

The infrastructure requirements identified in this report are items/packages where Industry believes there is a direct correlation between the infrastructure funding and accelerated delivery to market and there is currently no funding committed (unless otherwise stated). The infrastructure timings consider the projected population growth, but importantly are also reflective of development intention for infrastructure planning and provision at the right time. Items identified as critical enabling infrastructure are the key to enabling development and thus the delivery of much-needed housing to commence.

The ultimate infrastructure and associated funding required to deliver full dwelling yield in the growth areas has not been included. However, in some cases funding for planning of these items has been.

The costs and dwelling yields are estimates only, based on publicly available information and industry expertise. Further work is required by Government to confirm the detailed costings for delivery of these crucial enabling infrastructure items.

The maps included in this report utilise the mapping work performed as part of the NHP Report. These maps highlight broader constraints in the development areas and are combined with an overlay of existing utility infrastructure in and around the development areas.

Initial engagement has taken place with the service agencies (e.g. Western Power and Water Corporation), the Growth Area Perth and Peel (GAPP) Councils, the State Government's Housing Supply Unit, the Department of Planning, Lands and Heritage and Infrastructure WA as part of this work.

Establishment of UDIA WA working group – comprising developers, engineers, and planners

Identification of critical enabling infrastructure requirements for key growth areas

Identification of costing estimates, timings, and anticipated yield to be unlocked

Engagement with service authorities, DPLH and IWA

Report Finalisation

Ongoing Advocacy

North-East Corridor

NORTH ELLENBROOK & BULLSBROOK

The North Ellenbrook and Bullsbrook growth corridor extends from the current Ellenbrook and The Vines boundaries, north towards Bullsbrook, and is intersected by Tonkin Highway. It is located in the upper reaches of the Greater Perth North-Eastern region entirely within the City of Swan, in the Federal electorate of Pearce and the State electorate of Swan Hills.

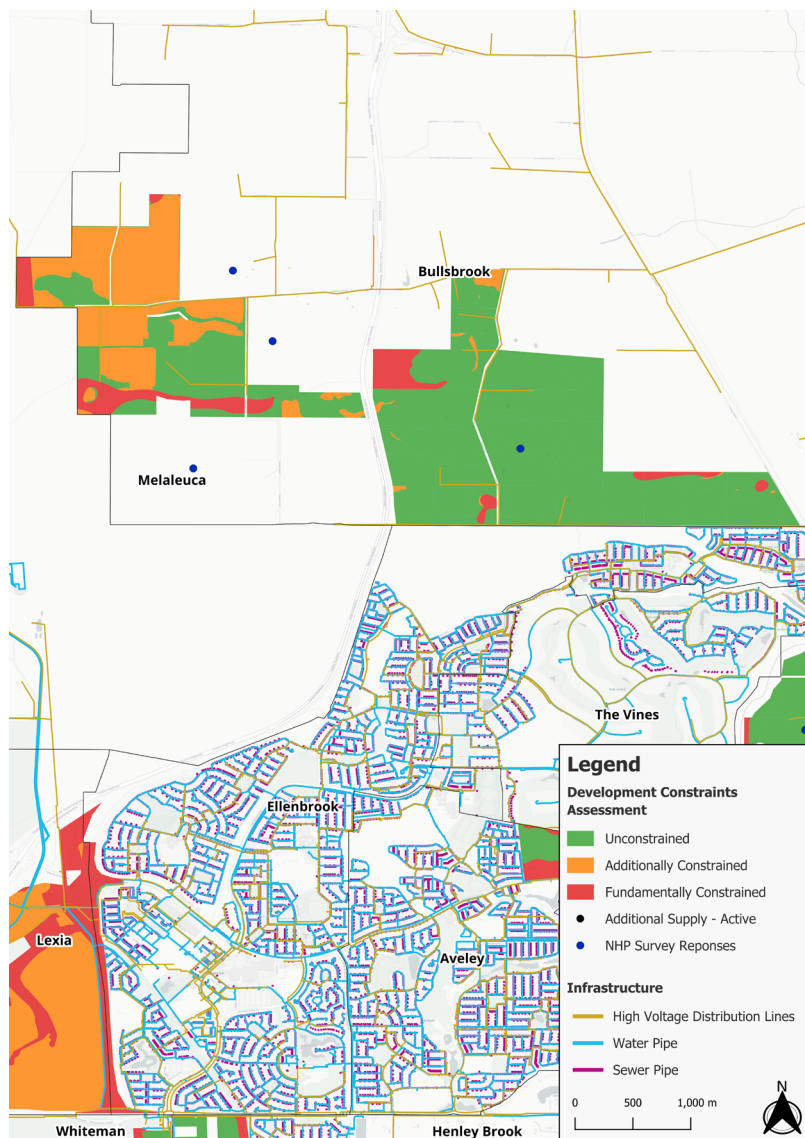
The Western Australian Planning Commission's North-East Sub-Regional Planning Framework has identified significant areas within the corridor for Urban Expansion, Urban Investigation, Industrial Expansion, and Industrial Investigation. Whilst the approvals process for new land supply is ongoing and some development is underway, the critical enabling infrastructure to allow this land to more rapidly come to market is yet to be put in place to facilitate the expected growth.

The North Ellenbrook and Bullsbrook growth corridor is an example of where infrastructure

funding is required "at the right time", whilst the infrastructure is not required to be built at this stage the certainty of funding is required now to enable the planning process to unlock the residential developments.

The Planning Framework identified that the North-East is set to grow by around 160,000 people between 2024 and 2050 which reflects a 56% increase in population. The Sub-Regional Planning Framework forecasts that an additional 68,000 new dwellings will be required across the North-East Sub-Region over this 26-year time frame, a clear demonstration of the importance of this corridor to current and future housing needs of Perth.

This future population will be well located both in proximity to existing employment centres, and the future growth of the Bullsbrook industrial precincts.



\$678,000*

Perth Median House Price
(Established Market)
June 2024

\$600,000*

Median New House and Land
Package (Swan LGA)
June 2024

~6,000*

Past 5-Year Dwelling Yield
(Swan LGA)

~26,000

Current Planned Dwelling Yield
(North Ellenbrook & Bullsbrook)

INFRASTRUCTURE REQUIREMENTS CONTEXT

The infrastructure requirements presented in the following tables for each growth corridor have been divided into two groups, being **Immediate Priority Enabling Infrastructure Items** and Longer Term Infrastructure Items.

Immediate items, in this context, are items required to begin or continue delivering housing within the growth area where one or more infrastructure constraints are preventing delivery.

Longer term items are pieces of infrastructure which will be required to facilitate the long-term dwelling yield and associated population, however, are not required to enable the immediate delivery of housing. This does not mean that these items will remain as non-enabling, as development continues a number of items will need to begin the planning phase in order to allow for continued development in order to avoid a situation in which we are constrained by the capacity of the infrastructure in the immediate surrounds of a development site. This list is non-exhaustive, it is intended as a 'watch list' only at this stage.

IMMEDIATE PRIORITY ENABLING INFRASTRUCTURE

Infrastructure Item	Infrastructure Type	Project Stage	Estimated Cost (Committed to date)	Required In	Additional Comments
District level wastewater pump station, pressure mains and gravity mains	Wastewater	Concept planning	\$65,000,000	5 years	Funding commitment required immediately to unlock the planning process for this region.
Water reticulation trunk main	Water	No activity	\$35,000,000	5 years	Funding commitment required immediately to unlock the planning process for this region.
Henley Brook substation	Power	No activity	\$25,000,000	Planning should commence immediately	Less than 5MVA spare capacity. Substation upgrade required (third transformer and feeder extensions).
North Ellenbrook Interchange	Transport	Funded	\$118,000,000 (\$98,000,000)	Immediate	Bring forward project to ensure construction commences as soon as practicable and provide funding to cover potential cost escalation.
Warbrook Road upgrade	Transport	No activity	\$20,000,000	5-10 years	
Railway Parade upgrade	Transport	No activity	\$25,000,000	5-10 years	
Total			\$288,000,000 (\$98,000,000)		

LONGER TERM INFRASTRUCTURE ITEMS

The following items have been flagged as required or for consideration to realise the long-term dwelling yields for the region and completion of the longer-term vision of North Ellenbrook and Bullsbrook.

- Multiple power distribution network upgrades
- Water distribution infrastructure

North-West Corridor

EAST WANNEROO

The East Wanneroo growth corridor has long been touted as the next growth corridor and the connecting piece between the North-West and North-East of Greater Perth. Located within the Federal electorate of Pearce and the State electorates of Wanneroo and Landsdale, the intent is for East Wanneroo to provide future residents with central access to essential facilities and services through a district centre.

The North-West Sub-regional Planning Framework identified that the North-West is set to grow by 278,600 people between 2024 and 2050 reflecting a 60% growth in population. The Sub-Regional Planning Framework estimates that 112,500 new dwellings will be required across the City of Wanneroo over the coming 26 years to 2050. With East Wanneroo's dwelling target of up to 50,000, it is a key focus for achieving this target approaching the mid-way point of that timeframe.

East Wanneroo's proximity to employment nodes, including the expanding Neerabup industrial area including the Australian Automation and Robotics Precinct, the

Joondalup city centre and other industrial investment in surrounding areas will see it well-positioned to allow its residents to hold jobs in close proximity and ensure the workforce in the northern suburbs is growing to accommodate the labour-needs that these precincts will demand.

Whilst much of the land in this area has Urban Expansion or Investigation status within the Planning Framework, the nature of the fragmented land ownership in the area, in combination with the required upfront investment in infrastructure to facilitate development, has delivered very limited progress since the publishing of the Framework in 2018.

\$678,000*

Perth Median House Price
(Established Market)
June 2024

\$600,000*

Median New House and Land
Package (Wanneroo LGA)
June 2024

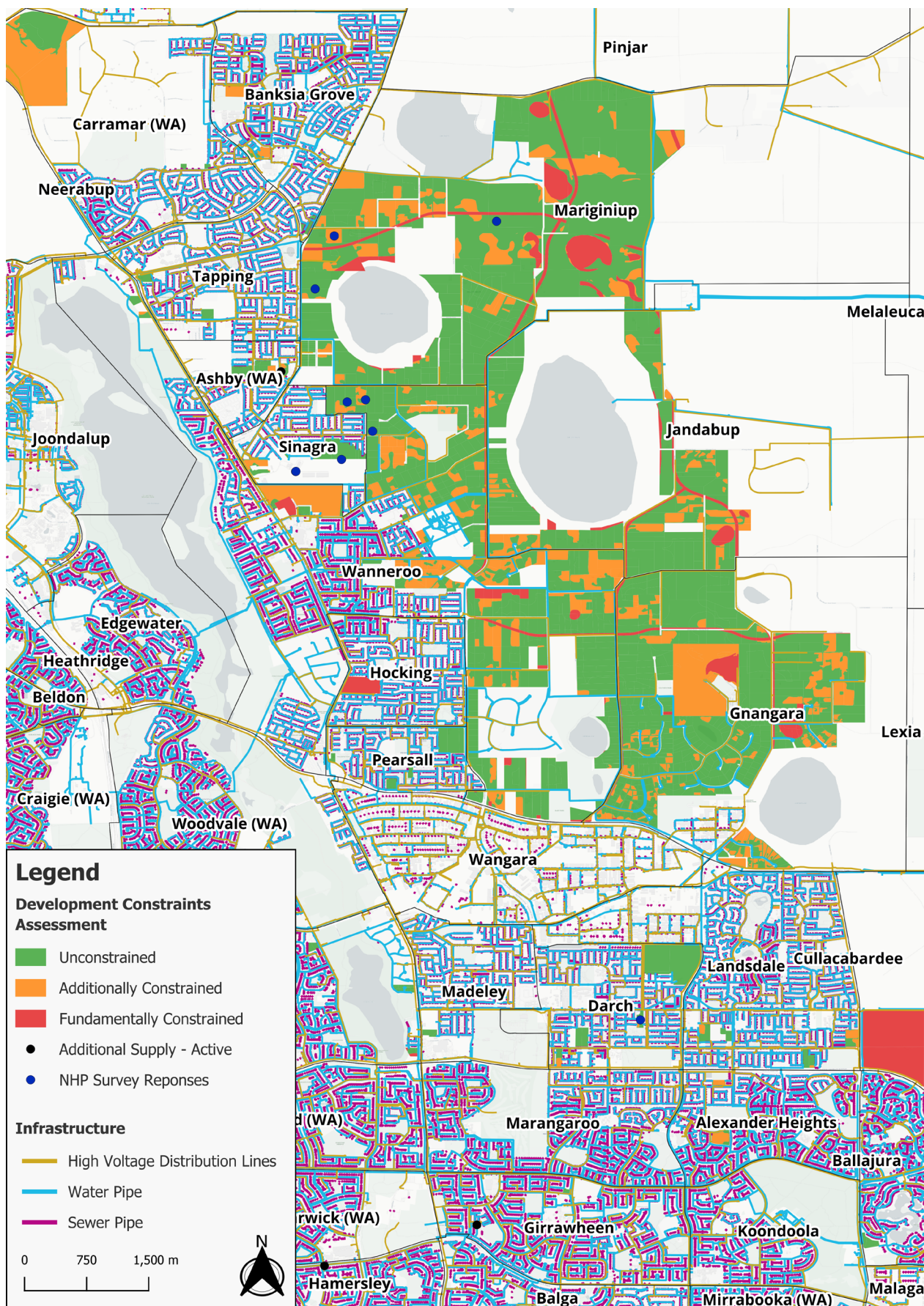
~9,000*

Past 5-Year Dwelling Yield
(Wanneroo LGA)

~50,000

Current Planned
Dwelling Yield
(East Wanneroo)





IMMEDIATE PRIORITY ENABLING INFRASTRUCTURE

Infrastructure Item	Infrastructure Type	Project Stage	Estimated Cost	Required In	Additional Comments
Jandabup Wastewater Pump Station (WWPS) "A" & interim pressure main - initial phase	Wastewater	Planning (included in capital investment program)	\$4,400,000	2025	
Jandabup WWPS "D" & interim pressure Mmain	Wastewater	Concept planning	\$4,400,000	2025	
Planning and acquisitions for upgrade of Jandabup A WWPS & pressure main	Wastewater	No activity	\$4,000,000	2028	Upgrade of the pump station (\$40m) is in Water Corporation's CIP for 2035 but it will be required by 2030. To enable this, planning must commence within the forward estimates - \$2M in each FY26-27 (for planning) and FY27-28 (planning and acquisition).
Groundwater management system	Water	Concept planning as part of DCP	\$25,000,000	2025	Will likely not require full upfront expenditure but will be required to allow each development cell.
Wanneroo Reservoir upgrade - 4ML elevated tank & pump upgrades	Water	Unknown	\$5,000,000	2027	To boost water supply to high level zone on western side of precincts 1-6.
Power infrastructure (Wanneroo substation & Henley Brook substation)	Power	No activity	\$45,000,000	Planning to commence immediately	Require transmission line upgrades/ extensions, at least 1 zone substations and at least 4 sets of HV network feeder extensions.
Total			\$87,800,000		

LONGER TERM INFRASTRUCTURE ITEMS

The following items have been flagged as required or for consideration in order to realise the long-term dwelling yields for the region and completion of the longer term vision of East Wanneroo:

- Upgrade of Jandabup A WWPS & pressure main
- Wanneroo Reservoir upgrade - 100ML ground level reservoir
- Extension of the Whiteman-Yanchep Highway
- North East Rapid Transit

Southern Corridor

MUNDIJONG

The Mundijong growth corridor is located in the south-east of the greater Perth area, approximately 9km south of Byford within the Shire of Serpentine-Jarrahdale. The Mundijong area is located within the Federal electorate of Canning and the State electorate of Darling Range. The Metropolitan Region Scheme has classed Mundijong as Urban since 2006 and additionally the Western Australian Planning Commissions South Metropolitan Peel Sub-Regional Planning Framework has identified additional adjoining land as Urban Expansion.

The South Metro Peel Sub-regional Planning Framework identified that the southern corridor is set to grow by around 491,000 people between 2024 and 2050 reflecting an increase of 64% in base population. The Sub-Regional Planning Framework anticipates a dwelling growth requirement of around 201,500 to accommodate the increase in population across the South Metro Peel Sub-Region. A heavy burden is being placed on Perth's South and Peel regions to accommodate the growth of

the Perth metropolitan area and ensuring that infrastructure is being facilitated at the right time to enable the delivery of the required homes is critical to ensuring that these areas can accommodate the growth demands.

Mundijong's proximity to Kwinana port complex, the planned Westport infrastructure projects and industrial investment in surrounding areas will see it well-positioned to allow residents to hold jobs in close proximity and ensure the workforce in the southern suburbs is growing to accommodate the labour-needs that this infrastructure will demand.

Whilst development has been occurring in Mundijong, progress has been and continues to be reliant upon the delivery of significant infrastructure investment to bring more land to market, this pattern will continue until the Mundijong area is better established and more urbanised across the zoned areas.

\$678,000*

Perth Median House Price
(Established Market)
June 2024

\$610,000*

Median New House
and Land Package
(Serpentine-Jarrahdale LGA)
June 2024

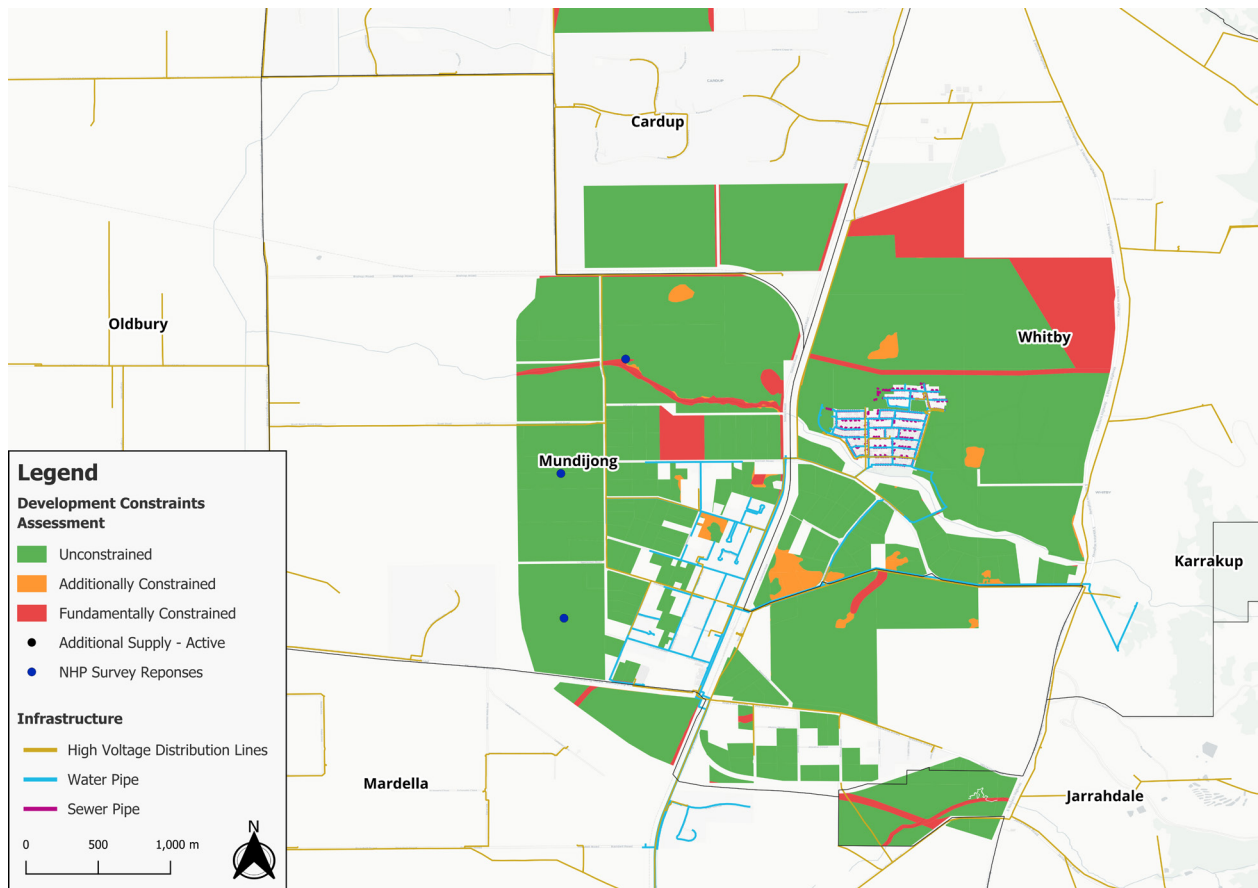
~1,700*

Past 5-Year Dwelling Yield
(Serpentine-Jarrahdale LGA)

~7,500

Current Planned
Dwelling Yield
(Mundijong)





EAST WELLARD

The East Wellard growth corridor is located south east of Kwinana Town Centre, spanning from the east of the Kwinana Freeway within the City of Kwinana and south towards Baldvis in the City of Rockingham. It is located within the Federal electorate of Burt and the State electorate of Darling Range.

Much of Wellard, west of the Kwinana Freeway, is currently classed as Urban under the South Metropolitan Peel Sub-Regional Planning Framework and has already been developed, with the majority of the balance to the east of the Kwinana Freeway being classed as Planning Investigation areas. This land is accompanied by a host of considerations including significant infrastructure investment to bring it forward for urban use as is noted in the Key Considerations within the Framework.

East Wellard's proximity to the Kwinana Port complex, the planned Westport infrastructure projects and industrial investment in surrounding areas will see it well-positioned to allow residents to hold jobs in close proximity and ensure the workforce in the southern suburbs is growing to accommodate the labour-needs that this infrastructure will demand.

\$678,000*

Perth Median House Price
(Established Market)
June 2024

\$600,000*

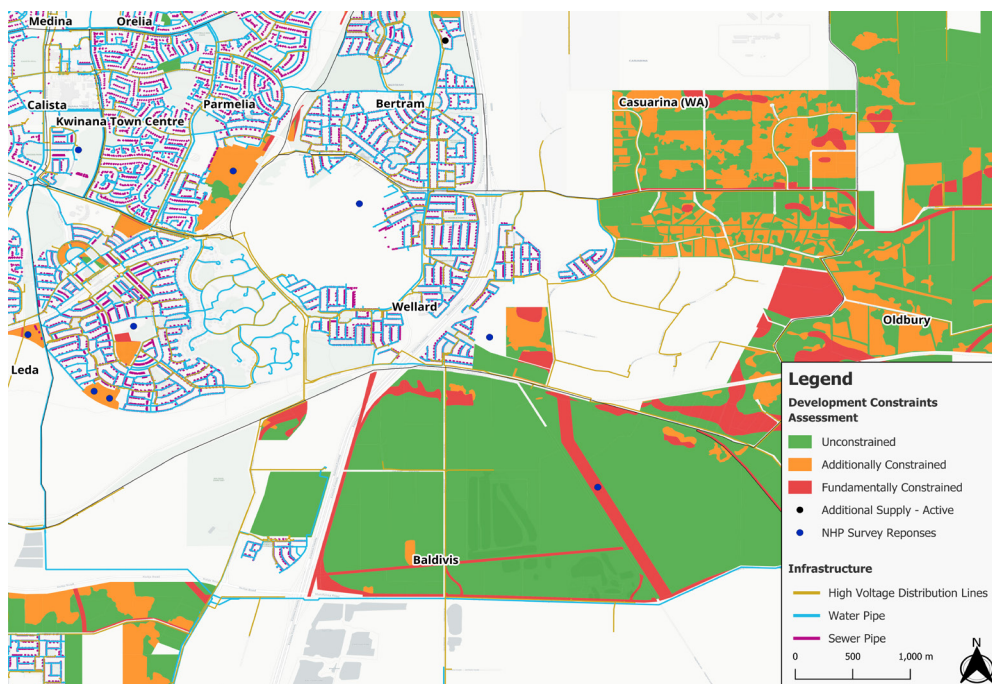
Median New House
and Land Package
(Rockingham LGA)
June 2024

~6,000*

Past 5-Year Dwelling Yield
(Rockingham LGA)

~6,000

Current Planned
Dwelling Yield
(East Wellard)



IMMEDIATE PRIORITY ENABLING INFRASTRUCTURE

Infrastructure Item	Infrastructure Type	Project Stage	Estimated Cost (Committed to date)	Required In	Additional Comments
Wastewater pump station and pressure main	Wastewater	Planning	\$11,800,000 (\$12,000,000)	Immediate	An allocation of \$12M for Mundijong Scott Road Pump Station is included in Water Corporation's CIP but due to inability for developers to pre-fund, it needs to be brought forward to 2024-25 to provide for the reimbursement of pump station works on completion of construction.
Planning for substation site (Kargotich Road)	Power	Planning	\$5,000,000	Immediate	Planning for site required per Perth and Peel @ 3.5M, in addition to transmission line and feeder extension upgrades.
Power feed upgrades	Power	No activity	\$10,000,000	Immediate	Extension of additional power feeders to support development activity in the region.
Mundijong Road upgrade (including intersections)	Transport	No activity	\$18,000,000	5-10 years	
Total			\$44,800,000 (\$12,000,000)		

LONGER TERM INFRASTRUCTURE ITEMS

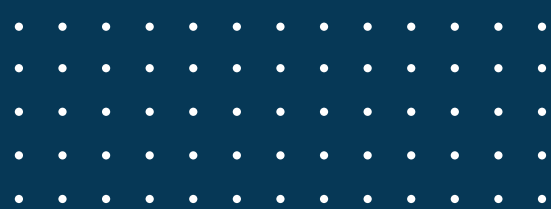
The following items have been flagged as required or for consideration in order to realise the long-term dwelling yields for the region and completion of the longer term vision of Wellard and Mundijong:

- Electrical infrastructure upgrades including substation site construction and associated transmission and feeder infrastructure
- Water distribution infrastructure





For the
*community
creators*



About UDIA WA

The Urban Development Institute of Australia WA (UDIA WA) is the leading membership organisation representing the urban development industry in Western Australia. We represent member organisations across the entire housing supply chain, from both the private and public sector, and we have been representing industry in WA for over 50 years.

We inform and engage government and industry, enabling better policy and better business decisions aligned with our Purpose, Vision, and Mission.

Our Purpose

Great places + Housing choice = Better lives

Our Vision

Diverse living options in thriving, connected communities

Our Mission

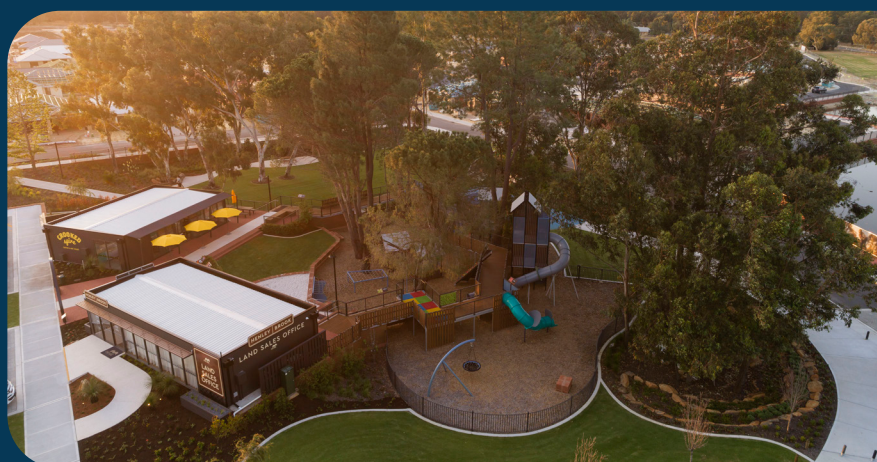
Lead, influence and deliver remarkable member value for a strong urban development industry

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