ATTACHMENTS

Ordinary Council Meeting

Under Separate Cover

Thursday, 21 March 2024

Forest to Wheatbelt

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4WDL VROC Shires of Dumbleyung, Lake Grace, Wagin, Williams, Woodanilling and West Arthur

Investment in 33 Key Worker Dwellings in the 4WDL VROC Region of Western Australia

PRELIMINARY BUSINESS CASE

February 2024

VERSION CONTROL

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Abbreviations

Abbreviation	Description
4WDL	VROC representing the shires of Wagin, Williams, West Arthur, Woodanilling, Dumbleyung, and Lake Grace
BCR	Benefit Cost Ratio
CBA	Cost Benefit Analysis
EIA	Economic Impact Assessment
IO	Input-Output
GFA	Gross Floor Area
GVA	Gross Value Added
HA	Hectare
KWHA	4WDL Key Worker Housing Analysis 2023 Report (JE Planning)
KWHDC	4WDL Housing Plans and Key Worker Housing Development Concepts 2024 Report (JE Planning)
NPV	Net Present Value
PV	Present Value
SQM	Square Metres
VROC	Voluntary Regional Organisation of Councils

List of Appendices

The appendices are included in a separate volume from the Business Case.

Appendix	Description
Appendix A	4WDL Key Worker Housing Analysis (KWHA) 2023 Report
Appendix B	4WDL Regional Housing Analysis (Econisis) 2023 Report
Appendix C	4WDL Housing Plans and Key Worker Housing Development Concepts (KWHDC) 2023 Report
Appendix D	4WDL Short-Listed Key Worker Housing Investment Cost Benefit Analysis (CBA) 2024 Report

CONTENTS

1 EXECUTIVE SUMMARY

Proposal

Funding for the construction of 33 dwellings across the 4WDL VROC Shires to meet key worker accommodation and housing needs in the regional communities for the benefit of the local economies.

Need

Analysis by JE Planning in the 4WDL Key Worker Housing Analysis 2023 Report confirmed the requirement for between 158 and 254 key worker dwellings across the region over the next decade (including current unmet demand for in excess of 100 workers). This was confirmed through multiple modelling techniques and scenarios drawing on demographic, housing market and survey data and evidence.

Rationale for Investment

Private housing markets in 4WDL communities are experiencing "market failure" conditions due to slowing and declining population growth signals, poor development feasibility attributes (based on traditional development models) and below replacement median house prices. These market indicators hide significant economic-led demand from public and private sector organisations requiring quality accommodation options for key workers.

This market-failure condition means the region and State are experiencing significant economic opportunity cost due to the lack of suitable housing to accommodate productive and essential workers in the region.

Commercial lending institutions are also an inhibitor against regional housing investment as their borrowing assessment criteria includes algorithms negating positive loan approvals based on pre-determined postcode locations, impacting many regional areas across Australia.

Options

Vacant residential land supplies are constrained by servicing, tenure, ownership, environmental overlays and suitability for investment. The number of lots across the region meeting short-listing criteria limited to 19. Of these 33 potential dwellings were identified for development over 8 sites across each of the LGAs, including 2 sites in Wagin and 2 sites in Lake Grace.

Table 1 4WDL Shortlisted Sites for Housing Investment Concepts

Site	Address	Average Development Cost per dwelling	Number of Dwellings	Total Cost
1	8-10 (Lot 6 and 7) Harvey Street, Dumbleyung	$ 534,304	6	$ 3,205,825
2	25-29 (Lots 72,73 and 74) Hynes Court, Williams	$ 533,233	4	$ 2,132,933
3	8-10 (Lots 19 and 18) Khedive Street, Wagin	$ 532,512	3	$ 1,597,535
4	Portion of Lot 500 Wattle Road, Lake Grace	$ 533,162	6	$ 3,198,972
5	Portion of Lot 309 Burrowes (Wst) Street, Darkan	$ 542,762	4	$ 2,171,050
6	13 (Lot 129) Cardigan Street, Woodanilling	$ 474,292	2	$ 948,585
7	Portion of Lot 9002 Griffin Road, Lake Grace	$ 533,258	2	$ 1,066,515
8	3 (Lot 19) Omdurman Street, Wagin	$ 524,242	6	$ 3,145,454
TOTAL		**$ 525,971**	**33**	**$ 17,466,869**

Local Government Development and Ownership was identified as the preferred delivery model due to the scale of feasibility gaps rendering more incremental funding or market-led incentives unsuitable. The exception is the potential for a development financial subsidy (of approximately $350,000 per dwelling[1]) to market, employer and community-led housing projects under a co-investment model. However the depth of market and capacity of private partners to deliver this likely impedes its short-term take up.

Evaluation

Cost estimates from Chadwick Consulting identified an average development cost per dwelling requirement of $525,971. This represents a total cost, excluding land value of ***$17,466,869 for the servicing of sites and the construction of the 33 dwellings***.

Dwelling construction costs include the pad and house, carport (1 carport for 2-bedroom, 2 carports for 3-bedroom) and driveways. Dwellings have also been costed to a 'medium' specification, to reflect quality requirement for long-term habitation. Additionally, dwelling footprints are relatively small to enable modular/flat pack construction methods. Refer to the table below for examples of the dwelling sizes.

This includes escalation to December 2024 and contingencies.

A Cost Benefit Analysis of the preferred option was undertaken by Econisis. This identified a series of economic and social benefits including:

- Construction Supply Chain Benefits
- Direct Economic Contribution of New Key Worker Households
- Household Expenditure Benefit
- Social Benefit of Housing Access
- Housing Market Normalisation
- Residual Asset Value

The below table summarises the results of the cost benefit analysis.

Table 2 Summary of Cost Benefit Analysis Results

Summary	4%	7%	10%
Total Costs	**-$19.3**	**-$18.6**	**-$18.0**
Capital Costs	*-$17.1*	*-$16.9*	*-$16.7*
Maintenance	*-$2.2*	*-$1.7*	*-$1.3*
Benefits	**$49.9**	**$38.1**	**$30.0**
Construction Supply Chain Benefits	*$1.2*	*$1.2*	*$1.2*
Economic Contribution of Key Workers	*$33.0*	*$25.3*	*$19.9*
Household Expenditure-Based Economic Impacts	*$6.9*	*$5.3*	*$4.1*
Social Benefit of Housing Access	*$5.0*	*$3.8*	*$3.0*
Housing Market Normalisation	*$2.2*	*$1.7*	*$1.3*

[1] Derived based on 65% of the capital value estimates of proposed dwellings from Chadwick Consulting, assuming the remaining 35% and associated land is provided by the market-based proponent.

Summary	4%	7%	10%
Residual Asset Value	*$1.6*	*$0.9*	*$0.5*
NPV	**$30.5**	**$19.5**	**$12.0**
BCR	**2.58**	**2.05**	**1.67**

BCRs and NPVs are positive for the 33 dwelling project at all discount rates, with BCRs exceeding 2.0 at 4% and 7% discount rates.

Sensitivity testing confirmed downside resilience of the results from conservative variable adjustments. A sensitivity test involving a financial subsidy approach and co-investment model (Test 3) was also undertaken and showed strong BCRs and value for money, though is contingent on take up and capacity of partners to fund and delivery under the model.

The project has the capacity to delivery $30.4m in economic output to the WA economy over the construction phase (assuming 3 years). This includes $5.1m in direct and indirect economic incomes and $9.5m over 3 years of Gross Value Added to the regional economy. Approximately 16.5 construction job years will be supported during the construction phase.

Table 3 Summary of Economic Impact, Construction Phase, Total Impact

Summary	Initial Impact	First Round Impact	Industry Support Impact	Total Impact (Simple Multipliers)
Output ($m)	$17.5	$8.5	$4.4	$30.3
Income ($m)	$2.4	$1.8	$0.9	$5.1
Employment (FTEs)	8.5	5.0	3.1	16.6
Gross Value Added ($m)	$4.6	$3.1	$1.8	$9.5

Preliminary Implementation Advice

A likelihood and consequences based risk assessment of the project identified no Extreme Risks. Only one Major Risk was identified – that Project-related housing assets have a negative value upon delivery. However, such negative value unlikely to be realized due to own-and-lease model proposed in the delivery model analysis and governance options. Financial contribution by the State Government will also alleviate such impacts.

Governance of the Project, from a procurement, delivery and ongoing operational perspective, can take a number of potential forms. While no recommendation on specific governance model was recommended, options for consideration include:

- Individual Local Government project management and delivery
- Coordinated regional project management and delivery
- Establishment of a regional community housing entity to manage the procurement, delivery and operations
- Engagement of an established Community Housing Organisation as a delivery partner
- Partnership with State Government agencies (Development WA, Department of Communities) in the procurement and delivery of the assets

Each option has positive and negative implementations, though retaining a strong involvement and leadership role of Local Government in the operation of the housing assets was viewed as critical to allowing the specific local key worker housing needs to be responded to in a flexible manner.

The following next steps are recommended for consideration:

- Engage with State Government agencies to secure in principle support for the projects and confirm appropriateness of governance and delivery models.
- Seek a design partner on the market to secure designs and costings for the project and/ or test the market using already prepared concept designs via a public tender process.
- Provide these details as part of a targeted investment application and funding submission to the State and/or Federal Government (or the relevant identified agencies).

Upon successfully securing funding, it is recommended that a procurement and project management plan (unless already tendered) be established to guide further steps in the delivery and implementation of the project.

Recommendations

This preliminary business case and associated analysis and evidence confirms the recommendation that:

State and/or Federal Government investment be provided to enable the delivery of 33 dwellings across the 4WDL Councils for the purposes of providing accommodation and housing for key workers in the region.

Consideration should also be given to the establishment of a ***Key Worker Housing Subsidy Fund*** to supplement the market failure gap by providing financial support and capital subsidies to market, employer and community-led key worker housing projects in the region based on a co-investment model. This program is aimed to incentivise private sector investment targeting privately owned land sites in townships or on rural farming properties (for farm workers).

2 PROJECT PURPOSE

2.1 Introduction

Key worker housing supply and affordability challenges are increasingly common across regional areas in Australia, impacting the ability to attract and retain key workers. The combination of small labour markets, flat and declining populations, comparatively low median housing market prices, and development feasibility issues require coordinated government intervention. Further, banks and other private lending institutions have established system assessment criteria that flags (prohibits) lending for new housing infrastructure across many regions in Australia.

The *4WDL Key Worker Housing Analysis 2023 (KWHA) Report* ***(Appendix A)*** for the 4WDL region presented evidence to confirm the extent of the housing shortage in the Shires of Williams, Wagin, West Arthur, Woodanilling, Lake Grace and Dumbleyung. The KWHA included a Regional Housing Economic Analysis that identifies and tests the key feasibility of local government-led housing delivery, ownership and management models across Australia.

Aggregating data across local government areas in stalled regional markets aims to create sufficient scale for commercially feasible housing development, together with government investment intervention to fund the 'failed market' gap. The KWHA established the scale of demand for purpose built and appropriate key worker housing, revealing a lack of accommodation to support lone, small and aged households. The expansive land area of the 4WDL region, combined with the comparatively small size of many communities, impacts the viability (and interest) of private housing construction and supply.

The *4WDL Housing Plans and Key Worker Housing Development Concepts (KWHDC) Report (***Appendix C***)* provides a technical analysis and describes high level housing development concepts to address the KWHA recommendations.

This Preliminary Business Case has been prepared in the WA Government Business Case Template for use by the 4WDL working group in engagement with the State Government to seek funding for land development and construction for key worker housing.

2.2 Proposal Background and Context

2.2.1 4WDL VROC

The Wheatbelt Development Commission (WDC), in partnership with the 4WDL Shires, engaged JE Planning Services and Econisis to analyse key worker housing needs and challenges and highlight opportunities to stimulate housing development and investment in the 4WDL region.

The 4WDL region (See Figure 1) encompasses a land area of approximately 21,135 km2 and comprises the following Local Government Areas (LGAs):

- The Shire of Wagin
- The Shire of Williams
- The Shire of West Arthur

- The Shire of Woodanilling
- The Shire of Dumbleyung
- The Shire of Lake Grace

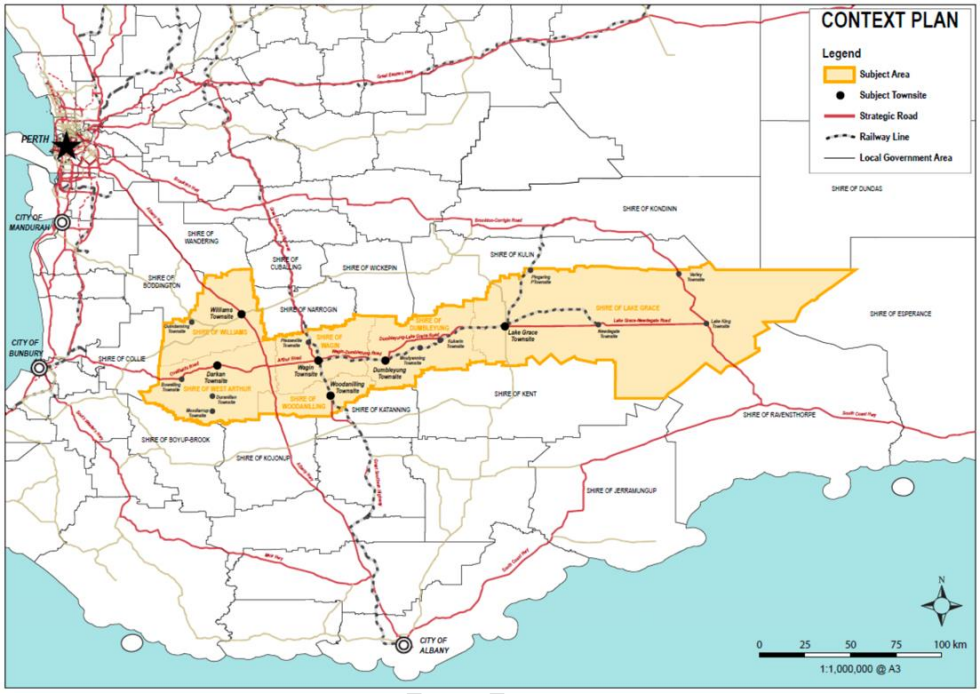

Figure 1 KWHA Study Area

The KWHA Report identified and quantified housing demand in the six local government areas and identifying key development feasibility constraints, land availability, and potential development models to address future regional key worker housing.

While the region continues to experience economic growth, limited capital gains and lending restrictions in recent years have impacted the construction of new houses. The 4WDL Shires have identified a critical shortage of suitable key worker housing, which is impacting the ability of the private and public sectors to attract and retain skilled workers and their families in the region. Subsequently, this has increased reliance on drive-in-drive-out workers and the need for accommodation investment.

2.2.2 Socio-Demographic and Housing Profile

According to the ABS census data, the 4WDL Shires aggregate population in 2021 was 5949 representing a slight decline in population (63 people) over the decade since 2011. This data also indicates a reduction of 166 total dwellings since 2011.

Table 4 Population and Total Dwellings Trends by Local Government Area (LGA) from 2011-2021

LGA	Dumbleyung	Lake Grace	Wagin	West Arthur	Williams	Woodanilling	Total
2011							
Population	605	1360	1846	868	914	419	6012
Dwellings	376	754	949	490	460	205	3234
2016							
Population	671	1268	1852	809	981	409	5990
Dwellings	386	745	943	469	455	204	3202
2021							
Population	681	1265	1761	773	1021	448	5949
Dwellings	339	743	886	376	503	221	3068

Source: ABS Census

The Shire of Dumbleyung, Woodanilling and Williams have experienced a small population increase since 2011, while the Shire of Lake Grace, Wagin and West Arthur is experiencing a slight population decline.

Based on the 2021 ABS census data, housing trends across the 4WDL indicates that 78% of the dwellings are occupied (See Table 3), with 96% of housing stock being single dwellings. Census data indicates that 45% of dwellings are owned outright, with a further 22% owned with a mortgage and 32% rented or leased.

Table 5 Number of Houses supplied for Key workers by Agency and LGA

LGA	Shire Houses	GROH Houses	WACHS Houses	Total
Shire of Wagin	0	13	5	18
Shire of Williams	4	5	0	9
Shire of West Arthur	6	3	0	9
Shire of Woodanilling	3	0	0	3
Shire of Dumbleying	4	7	2	13
Shire of Lake Grace	11	17	2	30
Public Sector Key Worker Accommodation	28	45	9	82

Source: Stakeholder Engagement Outcomes

It is estimated that 34% of public sector housing is provided by local government, GROH provide 55% (owned and leased) and 11% by WACHS. These figures indicate the number of houses provided to employees of each sector of the public workforce. Local government owns 73 houses within the 4WDL region and currently rent 44 dwellings to other agencies or the private sector, equating to 60% of local government housing stock. While GROH provides the highest housing proportion to its workers, GROH leases 24% of the properties to house key workers. The change in GROH model preferencing leasing of existing housing stock over in-house build and letting, has also been a significant contributor to the lack of new housing investment in towns from across most regions, extenuating the current gaps.

Table 6 % Public Sector workers with housing

LGA	% Public Sector Workers provided with housing currently (2022)	Desired % Public Sector Workers provided with housing based on survey
Shire of Wagin	21%	33%
Shire of Williams	19%	29%
Shire of West Arthur	25%	42%
Shire of Woodanilling	18.75%	81%
Shire of Dumbleying	27%	54%
Shire of Lake Grace	34%	47%
Average	24%	48%

Source: Stakeholder Engagement Outcomes

According to the table above, 24% of public sector workers are provided with accommodation in the 4WDL area, meaning that currently 76% of public sector workers are not provided with accommodation in the region, and therefore likely drive in drive out, or access existing housing stock or lease accommodation from the Shire. Based on survey outcomes of planned or needed accommodation, the current desired supply level would need to accommodate at least 48% of public sector key workers. These trends indicate a significant lack of public sector housing in the region, with strain on local government owned housing stock to accommodate State and private sector key workers. This statistic implies that at best half of public sector employees need to be accommodated, almost double the current provision of public sector housing. This figure also indicates that even when the desired level based on current survey outcomes are addressed, over 50% of public sector workers will need to find their own accommodation.

2.3 Project/Service Need

While the 4WDL region is experiencing declining population trends, and forecasts predict this trend will continue; the decline rate is slow. Conversely, some of the LGAs within the area recorded slight growth over the past ten years. These trends may indicate that each town has the potential to sustain economic activities over time. However, addressing a shortfall in key workers and worker accommodation is vital to sustaining current activities.

Business Community and Local Government surveys were undertaken as part of the development of the KWHA Report.

Survey outcomes and engagement feedback highlight the need for adequate worker accommodation and houses to support families with a yard. Key priorities from business owners regarding housing needs for workers in order of frequency of response included:

1. More short-term worker housing is needed/as short-stay accommodation for seasonal workers.
2. Lack of availability of any housing.
3. Attractive housing options to suit a family and couples with backyards.
4. More rental availability is needed for smaller housing units/townhouses for single workers.
5. Replace or upgrade older accommodation. Modernise houses.
6. Housing people in caravan parks or in dongas is undesirable.

Demand forecasts prepared as part of the Key Worker Housing Assessment applied multiple approaches and scenario analyses. Five scenarios demonstrate both Top-Down and Bottom-Up analysis detailed in the sections below. These include:

- Scenarios A, B and C provide a Top-Down analysis using aggregation methods to establish an estimated range of key worker dwelling demand as it applies to the 4WDL area.
- Scenarios D and E provide a bottom-up approach using compositional analysis based on each LGA and housing sector data.

Details on the assumptions and elements of the scenarios are outlined in KWHA Report in Appendix A

The results for housing demand projections for the region for the next 5 years by Top-Down and Bottom Up Scenarios are summarized in the tables below.

Table 7 4WDL estimated dwellings demand for Workers – Top Down Scenarios

Scenario	4WDL Aggregate Dwelling Demand for Key Workers
A	299
B	180
C	106

Table 8 4WDL estimated dwellings demand for Workers – Bottom Up Scenarios

Demand By LGA assessment	Total Additional dwellings	Total key worker dwelling demand
Scenario D (high estimated demand)	322	254
Scenario E (Conservative Estimated demand)	207	158

Scenarios A and D are comparable as high estimates, Scenarios B and E are comparable as conservative estimates, and Scenario C is the outlier based on current trends which don't necessarily meet the demands addressed in the analysis.

The overall estimated figures reveal that the scale of demand for the 4WDL region sits between 158 (Low) – 254(High) key worker dwellings over the next decade. The high Scenario (D) provides direction for estimated and ongoing land supply requirements to meet dwelling demand over the coming decade, which is at a scale 2.5 times greater than current building activity. The low Scenario (E) guides immediate and short-term key worker housing needs.

The current, short- and longer-term, key workers housing needs by individual LGA/townsite include:

- Shire of Dumbleyung requires an additional 28-33 key worker dwellings by 2031 with current under provision of 14 key worker dwellings.
- Lake Grace requires an additional 30-45 key worker dwellings by 2031 with current under provision of 12-15 key worker dwellings.
- West Arthur requires an additional 18-31 key worker dwellings by 2031 with a current under provision of 8 key worker dwellings.

- Wagin requires an additional 42-61 key worker dwellings by 2031 with current under provision of 16-22 key worker dwellings.
- Williams requires an additional 26-48 key worker dwellings by 2031 with a current under provision of 13-18 key worker dwellings.

2.4 Rationale for Intervention

While private markets are the preferred method in Australia and most Western countries, for the supply of goods and services to the population, such markets are subject to failure. "Market failure" represents a situation in which, for a diverse range of reasons, the private sector is unable to meet the needs and requirements of a community. Issues of market depth/liquidity, capital intensity and feasibility are common factors in situations where markets fail.

Regional communities such as those in "4WDL" are more susceptible to issues of market failure, due to their comparative remoteness, small size/lack of demand critical mass and labour force constraints. This is particularly the case for housing, where the cost of construction often exceeds the market median price of housing.

Econisis tested the feasibility of development in the region across each of the major towns in the study area using a static residual value approach.

A static residual value is a preliminary approach to feasibility. It compares the direct and indirect costs associated with the construction of a dwelling with the notional market value of that dwelling. Any value that is residual from this comparison represents the maximum value of the land that would be necessary to facilitate a positive feasibility outcome.

The assessments are preliminary in nature due to the fact it is static and does not consider the impacts of cashflows and cost and value appreciation over time. While this limits the capacity of the feasibility assessment to consider issues such as internal rates of return, peak debt and discounted cash flows, static residual value analysis is highly suitable.

Table 9 Residual Value, Single Detached Dwelling, Major Towns

Town	Total Construction Cost	Sales Price	Residual Value	Notional Value per SQM
Bowelling	$313,131	$150,000	-$163,131	-$363
Darkan		$135,000	-$178,131	-$396
Dumbleyung		$210,000	-$103,131	-$229
Kukerin		$147,500	-$165,631	-$368
Lake Grace		$230,000	-$83,131	-$185
Lake King		$180,000	-$133,131	-$296
Newdegate		$115,000	-$198,131	-$440
Wagin		$226,700	-$86,431	-$192
Williams		$315,000	$1,869	$4
Woodanilling		$259,000	-$54,131	-$120

In order to address the preliminary feasibility issues raised, the dwelling construction would need a financial subsidy in addition to the land if the dwelling was to be sold on the market.

This subsidy would also be required if the dwelling is retained and leased to address the write-down in the value of the asset that will be incurred by the asset owner.

Refer to Appendix B for further detail.

2.5 Stakeholders

The following stakeholder groups were engaged as part of the KWHA and KWHDC Reports are outlined in the table below.

Table 10 Stakeholder Groups

Groups	Consultation Level - keywords	Communication Methods/Terms of Reference
Project Control Group – Wheatbelt Development Commission officers Shire of Dumbleyung CEO Consultants (Project Management)	Involve Collaborate	Confirm Project Process and Content Confirm Objectives Develop Key messages Emails/Phone calls/Teams calls/Meetings Teams Presentation Confirm Recommendations WDC to engage and seek support for State Government agency feedback on key worker housing demand and gaps for the next ten years (immediate and forecast).
VROC Working Group Shire of Dumbleyung Shire of Wagin Shire of Lake Grace Shire of West Arthur Shire of Williams Shire of Woodanilling (Steering Group)	Inform Involve Consult Collaborate Empower	Provide data, local knowledge and other technical information. Complete the survey/Questionnaire. All LGA's to engage local businesses and other key workers (& community stakeholders) to seek housing gap and expected key worker housing demand information for the next ten years (immediate and forecast) Emails/ and phone calls Teams Meeting/ Presentation
State Agency/ Service Agency Stakeholders WA Country Health Services Department of Community Services - GROH teams (representing WA Police, Education and Community) Western Power Water Corporation Department of Planning Lands and Heritage Development WA (RDAP)	Inform Consult Involve	Building awareness Gather views/information Emails/ and phone calls Feedback
Business Community Stakeholders Industry Farming Commercial Not for Profit List to be developed by each Shire	Inform Consult	Gather views/information Survey Emails/phone calls Feedback

Targeting of key stakeholders was implemented to sense test feedback provided and to validate the data collection process. The collection of data informing KWHA was through the following engagement processes:

- Business Community Key Worker and Housing Survey (Business Community Stakeholders)
- Local Government Key Worker and Housing Survey (VROC working group)
- State Agency Stakeholder Questionnaire

3 Strategic Options Identification and Analysis

3.1 Potential Solutions

3.1.1 Vacant Residential Land

The process of preparing the local housing plans and associated data provides contextual and ground-truthing information that underpins the preliminary business case. The analysis further quantifies the KWHA 2023 findings for key worker housing demand and land availability.

The KWHA 2023 included high-level figures indicating how current housing stock is being used and identified areas of under-utilisation. KWHA survey outcomes and Department of Planning Land and Heritage (DPLH) data was analysed and an overview of vacant and suitably zoned land that may accommodate key worker housing.

Table 11 DPLH Vacant Residential Lots Data

Local Government Area	Vacant Residential Lots
Dumbleyung	24
Lake Grace	14
Wagin	87
West Arthur	28
Williams	48
Woodanilling	35
Grand Total	236

A detailed desktop review of the vacant land in the 4WDL focused on the main townsite in each Local Government Area (LGA), and included the townsites of Darkan, Dumbleyung, Woodanilling, Williams, Lake Grace and Wagin.

Table 12 Estimated 4WDL Vacant Residential Zoned Land by Townsite

Townsite	Total Estimated Vacant Residential Zoned Lots	Vacant Lots full services	Vacant Lots Partial Services	Vacant Lots No services	Local Government Tenure	Total State Government Tenure	Vacant State Government owned land Considered for inclusion in Noongar Land Estate	Vacant lots in Bushfire Prone Area	No Lots addressing Short List criteria
Dumbleyung	43	8	32	0	19	12	9	31	4
Woodanilling	60	17	23	20	4	19	18	55	2
Darkan	26	24	2	0	3	7	2	7	2
Wagin	109	49	55	5	15	44	34	67	8
Lake Grace	18	7	11	0	3	12	8	9	1
Williams	35	22	10	3	3	12	1	18	2
Totals	291	127	133	28	47	106	72	187	19
Percentage	100%	44%	46%	10%	16%	36%	25%	64%	7%

The assessment of vacant Residential zoned land based on the results of the table above, indicates the following trends across the 4WDL:

- 44% have access to all available services in the town. This figure includes Woodanilling and Darkan, which do not have access to sewer.
- 46% constrained for development due to partial servicing.

- 10% do not have access to any services.
- 51% owned by local (16%) or state government (35%).
- 49% privately owned.
- 25% of vacant land is State Government land currently considered for inclusion in the Noongar Land Estate, not available to be considered for development at this time. Therefore 10% of the State government-owned land may have potential for development at this time.
- 26% owned by local and state government may be available for consideration of development at this time.
- 7% owned by Local Government are identified as 'project ready'. This includes local government-owned land with access to full servicing.
- 64% of sites are in 'Bushfire Prone Areas'..

A high-level assessment undertaken to gauge the approximate potential for developing housing within each town is presented in the table below. This table highlights potential dwelling yield of vacant serviced Residential zoned areas of the respective 4WDL towns based on current density.

Table 13 High level Estimate of Residential Development Potential in 4WDL Townsites

Townsite	Serviced Residential zoned sites with potential for single houses	Approximate number of serviced Residential sites with development potential for grouped dwellings	Average number of grouped dwellings per site	Sites with potential for multiple lot subdivision/ dwelling yield subject to servicing (Subdivision sites)	Anticipated lot/dwelling yield on subdivision sites (subject to planning and servicing)
Woodanilling	5	8	2	0	0
Darkan	24	0	0	1	28
Wagin	30	19	3	8	150
Lake Grace	6	1	32	1	38
Williams	18	4	2	8	300
Dumbleyung	1	7	3	9	54
Total	**84**	**39**	**42**	**27**	**570**

A summary of the development potential assessment reveals the following outcomes:

- 30% of vacant serviced zoned lots (all tenure) may have potential for grouped dwelling development.
- Based on trends observed through the assessment process, the likely yield on standard sites will be between two and four grouped dwellings. Larger or combined sites may allow six grouped dwellings or more.
- The current potential across all available vacant and adequately serviced land is estimated to provide 123 dwellings (including potential to provide 42 smaller grouped dwellings/modular).

- The fourth and fifth columns indicate residential-zoned parcels at the extent of larger townsites that may require structure planning for subdivision. Development of these sites will be subject to servicing and development and may yield around 500 residential lots/dwellings for the 4WDL subject to investment.

3.1.2 Housing Delivery Models

The Regional Housing Analysis undertaken by Econisis (Refer to Appendix B) identified a series of alternative housing delivery models and factors for consideration and review in meeting the housing needs of 4WDL. These options extend beyond the traditional construction and ownership of housing by Local Government for key workers in regional Australia (i.e. the core model).

Additional case study research and review of other key worker housing projects nationally has added to this analysis and allowed for the refinement and delineation of 5 potential government-related housing delivery models for the 4WDL area. These include:

- **Local Government Development and Ownership** – the local governments receive capital funding support to development of housing for which they retain ownership and enter short and long-term leases with key worker households.
- **Market/Community Housing Financial Development Subsidy** – the provision of a financial development subsidy to address the net residual value gap in the development of key worker housing by private market, businesses and community and social organisations.
- **Build to Rent Partnership Model** – providing a guarantee of occupancy and tenancy for a build-to-rent housing providers.
- **Local Government Rating Incentives** – providing local government rating incentives that improve the commercial return on investment of private sector housing development, particularly for build to rent.
- **Headworks and Land Services Contributions** – financial contributions by the State Government to headworks and other infrastructure and servicing costs associated with the development of residential land for key worker housing.

These options all relate specifically to either direct or indirectly facilitating capital investment in key worker housing. They exclude specific models relating to governance and or JVs of the housing once delivered. Advice and recommendations on potential options are included in section 5.0 of the business case.

The delivery options identified have been assessed using a Multi-Criteria Analysis approach in section 3.2.2 of the business case.

3.2 Preferred Project Option

3.2.1 Short-Listed Sites

The table below lists the identified project-ready shortlisted sites selected to provide key worker housing in the 4WDL region. The shortlisted sites provide a maximum of 33 key worker modular dwellings, conservatively addressing approximately 50% of the current key worker housing deficit. The site's location and maximum dwelling yield potential are also listed. Each site is detailed in the discussion by townsite in the relevant sections below.

Table 14 4WDL Shortlisted Sites for Housing Investment Concepts

Site #	Local Government	Address	Dwelling yield
1	Shire of Dumbleyung	8-10 (Lot 6 and 7) Harvey Street, Dumbleyung	6
2	Shire of Williams	25- 29 (Lots 72,73 and 74) Hynes Court, Williams	4
3	Shire of Wagin	8-10 (Lots 19 and 18) Khedive Street, Wagin	3
4	Shire of Lake Grace	Portion of Lot 500 Wattle Road, Lake Grace	6
5	Shire of West Arthur	Portion of Lot 309 Burrowes (West) Street, Darkan	4
6	Shire of Woodanilling	13 (Lot 129) Cardigan Street, Woodanilling	1 + ancillary
7	Shire of Lake Grace	Portion of Lot 9002 Griffin Road, Lake Grace	2
8	Shire of Wagin	3 (Lot 19) Omdurman Street, Wagin	6
Total Dwellings			**33 dwellings**

3.2.2 Preferred Delivery Options

The suitability and preferences of the housing delivery and development options identified in section 3.1.2 have been assessed using a Multi-Criteria Analysis (MCA) approach.

3.2.2.1 MCA Approach

A Multi-Criteria Assessment or MCA is an appraisal and evaluation technique that accounts for the role of economic, social and environmental factors in decision-making. Unlike CBA or SROI it does not require the monetization (monetary valuation) of social and environmental outcomes.

An MCA incorporates a series of measures across a criterion with the results of the measures aggregated up to a single result for the criteria as a whole. The results can be weighted or unweighted, with the latter providing a simpler and cleaner output at the potential risk of individual criteria/measures disproportionately impacting the results.

National MCA guidelines identified the following stages for developing an MCA.

Key stages are outlined below.

- Inputs – defining the inputs for the MCA. Includes identifying the scoring methods, key measures and relevant data sets and information capture.
- Design - identifying the criteria and organising structure of the assessment.
- Scenarios – scoring of the measures and scoring of the criterion based on aggregate measures.
- Results and Graphs – presentation of the results of the MCA.

Scoring measures:

- <5: Not suitable
- 5-9: Low level of suitability
- 10-14: Reasonable level of suitability
- 15-20: High level of suitability

3.2.2.2 Suitability Criteria

The assessment has utilised a qualitative unweighted and weighted approach to assessing the fundamental suitability of different delivery models to addressing key constraints and barriers to the development of key worker housing in 4WDL and the extent to which the models will facilitate housing delivery.

Key Criteria and their weightings include:

- **Residual Value/Feasibility Gap** – the extent to which residual asset values and feasibility gap are addressed (40%)
- **Housing Delivery Certainty** - extent to which the model delivers housing to the market (20%)
- **Market-Failure Solution** - extent to which non-financial barriers causing regional housing market-failure are addressed. This can include infrastructure and servicing (20%)
- **Non-Government Involvement** - extent to which non-government investment is induced or supported (10%)
- **Control of Delivery and Operational Risks** - extent of government has control or management over risks of delivery and operations of the housing (10%)

The results of the MCA are illustrated below and summarised in the following table.

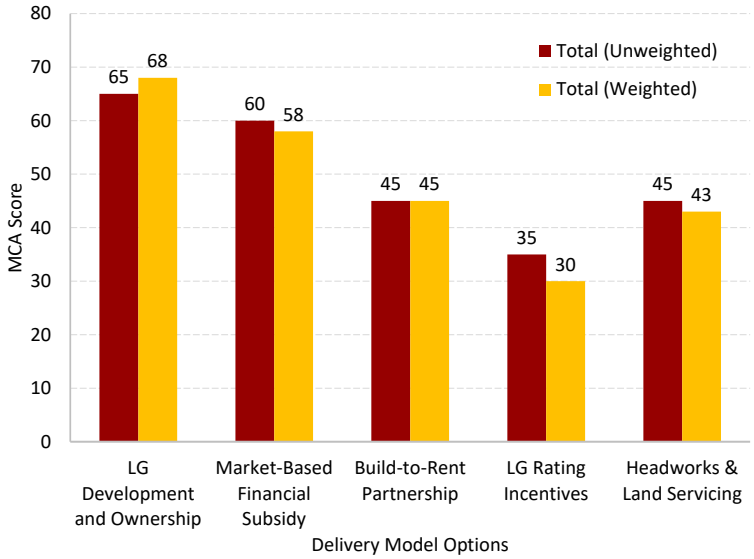

Figure 2 Delivery Option MCA Scores, Weighted and Unweighted

Overall, Local Government Development and Ownership (directly or through a community housing organisation) represents the preferred solution in the 4WDL. Other options struggle in light of the regional and remote nature of the market and the significant gap between market prices and feasibilities. This is particularly the case for options relating to Local Government Rating Incentives, which is unlikely to be sufficient to change fundamental market failure attributes in the area.

While land availability is an issue in some locations, a small number of suitable sites have been identified for development in the short-term, requiring only facilitatory investments in servicing. This reflects the fact that head works, and land servicing costs are only part of the factors that contribute to feasibility challenges in the area.

The provision of a financial subsidy to private sector and community-based key worker housing models does have some potential, particularly based on a co-investment model with market, employer and community housing partners. However, this model is heavily dependent on the rate of take up and capacity of organisations within the region to meet the remaining capital requirements of the developments. This model is tested as part of the CBA.

Build-to-Rent models are increasingly attractive where Government and other organisations can provide certainty of long-term leasing and tenancy. This model has potential long-term benefits and there are examples of its implementation in locations in the Pilbara and larger communities where feasibility issues are due to affordability, and not market size and negative residual values. Rental returns are generally positive in the region based on low median house prices according to Regional Economic Analysis research. This is also likely to still require some form of financial or land related support (such as land contributions, infrastructure and servicing supply and financial subsidy) to the Project from the public sector to ensure its viability.

Table 15 MCA Options Assessment

Criteria	LG Development and Ownership	Market-Based Financial Subsidy	Build-to-Rent Partnership	LG Rating Incentives	Headworks & Land Servicing
Residual Asset Value/Feasibility Gap	15	10	10	5	5
Housing Delivery Certainty	15	10	5	5	10
Market-Failure Solution	10	15	10	5	15
Non-Government Involvement	5	20	15	15	10
Control of Delivery and Operational Risks	20	5	5	5	5
Total (Unweighted)	65	60	45	35	45
Total (Weighted)	68	58	45	30	43

4 PROJECT EVALUATION

4.1 Evaluation Approach

The preferred option has been evaluated across several domains including:

- Financial Feasibility Analysis of the preferred option.
- WA Treasury and Australian Government Office of Impact Analysis-compliant cost benefit analysis, assessing economic, social and environmental benefits.
- Economic and Employment Impact Assessment, based on WA-specific regional economic multipliers

4.2 Financial Analysis

The maximum potential dwelling yield and estimated service and construction costs for each shortlisted development site were prepared by Chadwick Consulting and summarized in the KWHDC Report.

The total cost for the provision of the 33 key worker modular homes is estimated to be approximately $17,500,000, with an average estimated cost for servicing and construction of each dwelling being $525,971. Site and servicing costs range between $40K per dwelling for larger developments and upwards of $50K per dwelling as the development yield reduces. Headworks costs are location specific.

Table 16 Short Listed Sites to accommodate Housing Investment Concepts

Site	Address	Average Development Cost per dwelling	Number of Dwellings	Total Cost
1	8-10 (Lot 6 and 7) Harvey Street, Dumbleyung	$ 534,304	6	$ 3,205,825
2	25-29 (Lots 72,73 and 74) Hynes Court, Williams	$ 533,233	4	$ 2,132,933
3	8-10 (Lots 19 and 18) Khedive Street, Wagin	$ 532,512	3	$ 1,597,535
4	Portion of Lot 500 Wattle Road, Lake Grace	$ 533,162	6	$ 3,198,972
5	Portion of Lot 309 Burrowes (West) Street, Darkan	$ 542,762	4	$ 2,171,050
6	13 (Lot 129) Cardigan Street, Woodanilling	$ 474,292	2	$ 948,585
7	Portion of Lot 9002 Griffin Road, Lake Grace	$ 533,258	2	$ 1,066,515
8	3 (Lot 19) Omburman Street Wagin	$ 524,242	6	$ 3,145,454
TOTAL		**$ 525,971**	**33**	**$ 17,466,869**

Please note the following descriptions, inclusions, and contingencies relative to the high-level cost estimates:

- Dwelling construction costs include the pad and house, carport (1 carport for 2-bedroom, 2 carports for 3-bedroom) and driveways.
- Dwellings have been costed to a 'medium' specification, with ample kitchen cabinetry and fit out specifications, medium specification vinyl planking, air-conditioning to living spaces, one ample verandah, upgrades to the facade and external windows, and carports (not garages).

- Dwelling footprints are relatively small to enable modular/flat pack construction methods. Refer to the table below for examples of the dwelling sizes.

Table 17 Estimated dwelling size

Dwelling footprints (sqm)	1x1x1	2x2x1	3x2x2
Dwelling (enclosed area)	52	101	126
Verandah	12	12	18
Carport	23	23	34
Total (sqm)	**87**	**136**	**178**

- Due to the predominantly level and clear terrain, provision has been made for minor earthworks only. A desktop study only informs this; further investigation is required to confirm earthwork costs. Local Governments may have the internal labour and machinery resourcing capacity to undertake preliminary site preparation works as in-kind contributions to mitigate higher than estimated earthwork costs.
- A standardised provision is included for onsite drainage. This requirement may differ between sites, but accounting for the relatively small footprints and hard surfaces of the modelled dwellings, it is unlikely these costs will dramatically impact project feasibility.
- Due to these costings' preliminary and indicative nature, a 20% construction contingency is applied.
- An escalation rate of 5.1% to Dec 2024 is included based on Quantity Surveyor advice. While there are signs of market stabilisation in the building sector, any increase in fuel price or disruption to international supply chains could severely impact construction costs and increase this rate, especially in the Wheatbelt. When applying for funding, a generous escalation rate should be applied based on conditions at the time of application and accounting for potential delays in receiving government approvals.
- A 20% Wheatbelt rating is applied to account for the transport costs of labour and materials. Potential cost savings may be achieved if a construction program involving multiple sites is established in collaboration with a builder utilising flat-pack or modular housing products. This method could enable mobilisation and transport costs to be distributed across multiple construction projects and allow for greater certainty of costs due to the ability to purchase a significant portion of the building material up-front.
- Note that headworks, site works and servicing (internal) account for between 11% and 13% of per dwelling cost estimates (depending the on the sites). This includes headworks (such as sewer, power, water) which comprise approximately 3% of per dwelling costs estimates.

For further detail refer to ***Appendix A***.

4.3 Cost Benefit Analysis

Refer to ***Appendix D*** *4WDL Short-Listed Key Worker Housing Investment - Cost Benefit Analysis (CBA) Report 2024* for the full CBA analysis.

4.3.1 Benefits

A range of direct economic and social benefits of the Preferred Option have been identified. Those benefits which are capable of being monetised for inclusion in the CBA are outlined in the table below.

Table 18 Benefits Statement

Benefit	Theme/Description	Method of Calculation
Construction Supply Chain Benefits	Benefits to the WA and regional construction industry of residential capital investment.	Applied a first round GVA economic multiplier of 7.1% to the capital expenditure of the program of $17,466,869. Based on WA specific regionalised input/output transaction table. Assumed a construction phase of 2 years (based on a traditional model, noting a modular approach is likely to be more timely).
Direct Economic Contribution of New Key Worker Households	The key workers moving into the houses will be able to be work in the region. This benefit measures their productivity by working in the local economy.	The relative productivity of an individual-worker was calculated by dividing the GVA of the Education, Health and Public Safety/Admin industries in WA by the number of workers in these industries. This was multiplied by the 33 new households. It was assumed that there will be 1.25 key workers per household. An attribution rate of 50% was applied to account for other factors contributing to a worker's productivity e.g. the company they work for.
Household Expenditure Benefit	The contribution to the local economy of the new households spending at local retail businesses.	An average household's retail related expenditure is $33,000 per year[2]. This was applied to the 33 new households and a GVA to expenditure conversion rate of 50% was applied.
Social Benefit of Housing Access	The social benefits of housing access include enhanced labour market productivity, health cost savings, reduced domestic violence, enhanced human capital, reduced costs of crime, and education benefits.	These social benefits were quantified and collated by SGS Economics in their 2022 'Give Me Shelter' report. The combined total of these benefits per household is $11,914[3]. This was applied to the 33 households.
Housing Market Normalisation	Benefit relating to housing market normalisation due to no functioning housing market currently.	Multiplied the construction cost of the homes by 1% each year.
Residual Asset Value	A static residual value compares the direct and indirect costs associated with the construction of a dwelling	Calculated by dividing the construction cost by 25 years and multiplying it by 5. Applied in the final year of the asset lifetime (20 years after construction).

[2] Market Info 2022 (Market Data Systems)
[3] SGS Economics and Planning (2022) Give Me Shelter. Accessed at https://sgsep.com.au/assets/main/SGS-Economics-and-Planning_Give-Me-Shelter.pdf

Benefit	Theme/Description	Method of Calculation
	with the notional market value of that dwelling.	

4.3.2 CBA Results

This section provides an overview of the present value and composition of costs and benefits for the project. It includes an outline of the Benefit Cost Ratios and Net Present Value results for each project.

4.3.2.1 Costs

The evaluation estimates the present value of costs to range from $18m at the 10% discount rate to $19.3m at the 4% discount rate. The majority of this is the capital cost, with the remainder an annual maintenance cost.

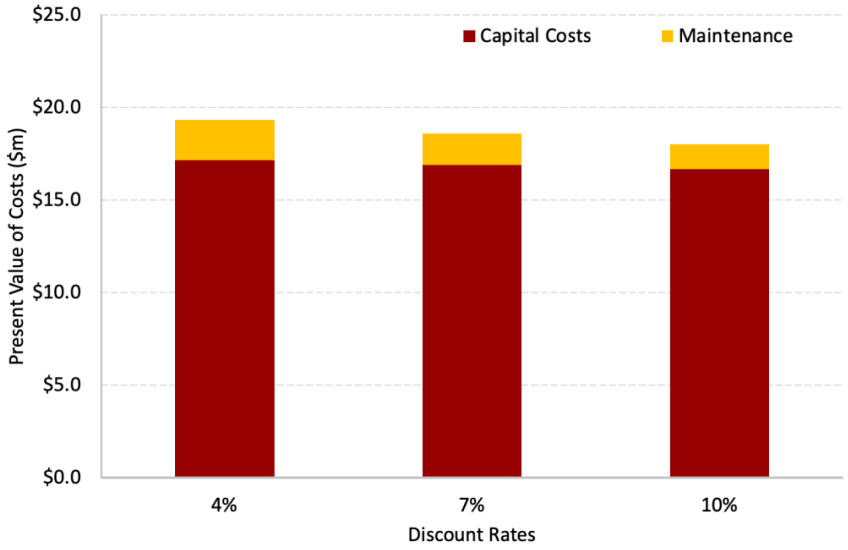

Figure 3 Present Value of Costs

4.3.2.2 Value of Benefits

Overall, the benefits of the project are approximately $38.1m at the 7% discount rate. This ranges from $30m at the 10% discount rate to $49.9m at 4%. These benefit values compare very favourably against an estimated capital expenditure cost of circa $17.5m.

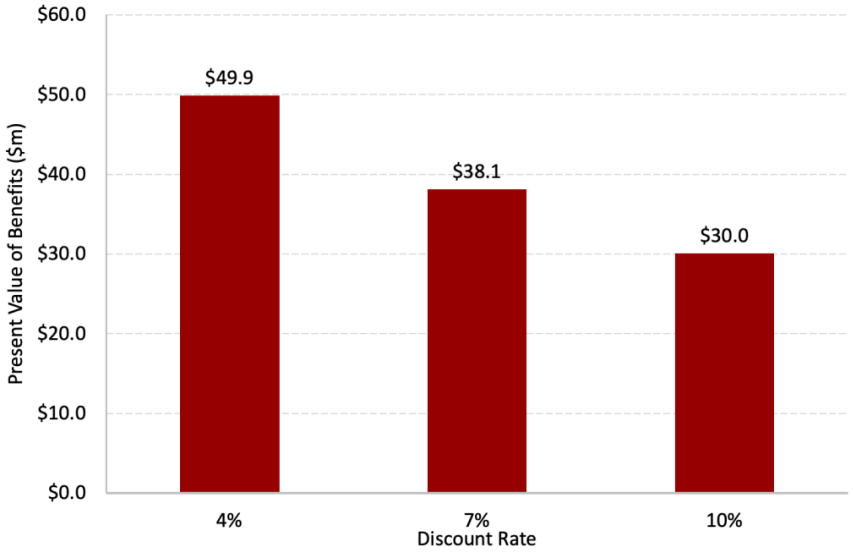

Figure 4 Present Value of Benefits

The largest benefit expected over the 20-year assessment period for the project (at a 7% discount rate) is the economic contribution of key workers, accounting for $25.26m. Following this are household expenditure-based economic impacts, which account for $5.26m of benefits and social benefits of housing access, which account for $3.8m.

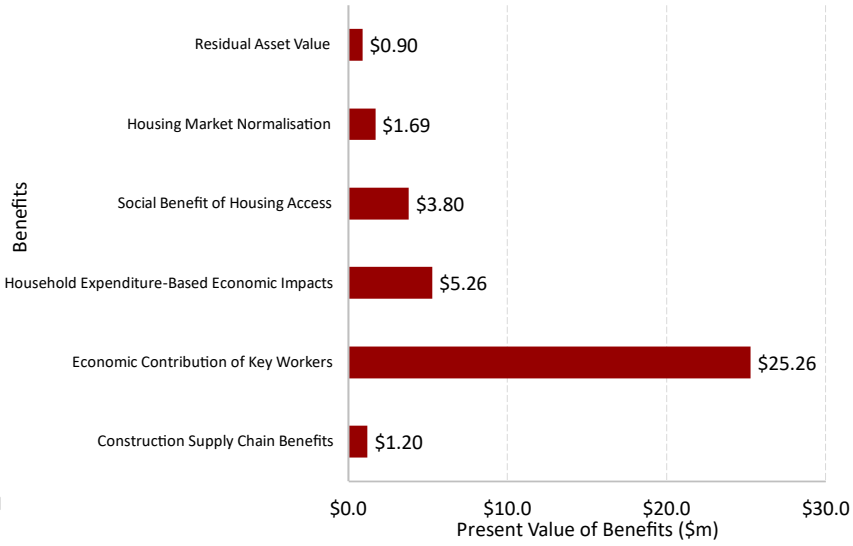

Figure 5 Present Value of Benefits ($m)

Each benefit was categorised as either social or economic. The majority of the benefit of this project is economic, with 14% of benefits being social. This is due to the significant value of worker contribution benefits.

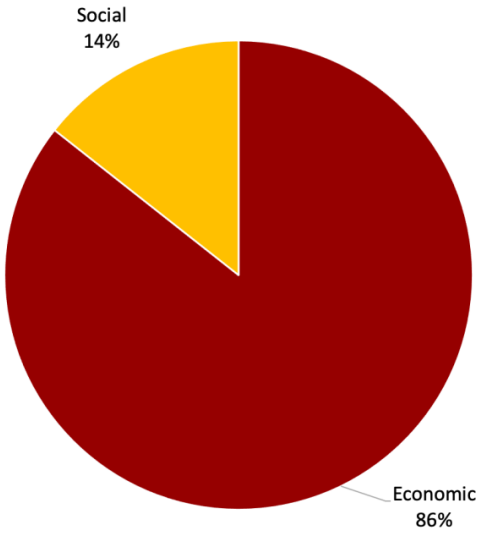

Figure 6 Composition of Benefits, Economic and Social Benefit Categories, at the 7% Discount Rate

4.3.2.3 NPV and BCR

Comparing the present value of benefits to that of costs, Econisis estimates the project will yield a net present value of between $30.5m over 20 years at the 4% discount rate and $12m at the 10% discount rate. All net present value estimates are above $0, meaning that the present value of the benefits is greater than that of the costs across all discount rates.

Figure 7 Net Present Value by Discount Rate

The benefit cost ratios ranged from 2.58 at the 4% discount rate to 1.67 at the 10% discount rate. Any BCR above 1.0 is regarded as positive, with BCRs at or approaching 3.0 particularly positive. This reflects the fact that benefits that accrue in the future have a higher

degree of uncertainty, and while this is addressed to an extent by the discount rates, a higher BCR provides the project a greater "buffer" that it will indeed yield benefits greater than the costs. In this instance, the predominantly economic nature of the assets means that the 7% discount rate is most relevant.

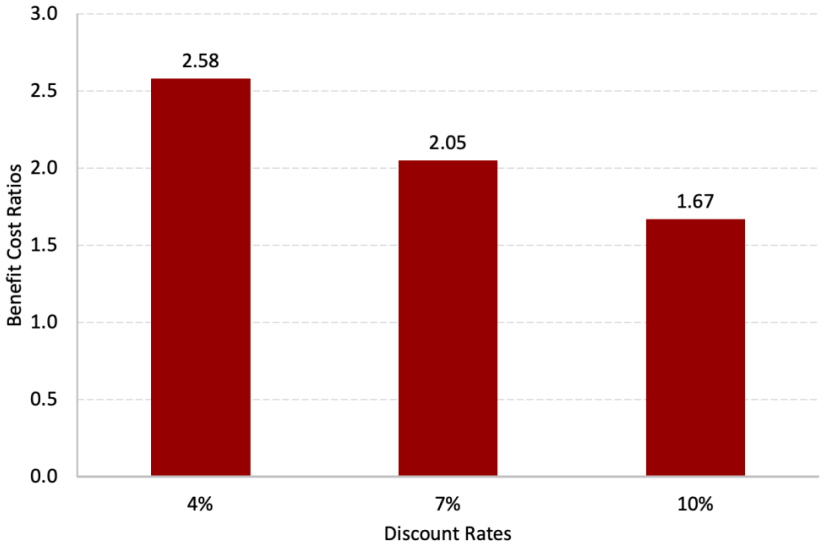

Figure 8 Benefit Cost Ratio by Discount Rate

The below table summarises the results of the cost benefit analysis.

Table 19 Summary of Cost Benefit Analysis Results

Summary	4%	7%	10%
Total Costs	**-$19.3**	**-$18.6**	**-$18.0**
Capital Costs	*-$17.1*	*-$16.9*	*-$16.7*
Maintenance	*-$2.2*	*-$1.7*	*-$1.3*
Benefits	**$49.9**	**$38.1**	**$30.0**
Construction Supply Chain Benefits	*$1.2*	*$1.2*	*$1.2*
Economic Contribution of Key Workers	*$33.0*	*$25.3*	*$19.9*
Household Expenditure-Based Economic Impacts	*$6.9*	*$5.3*	*$4.1*
Social Benefit of Housing Access	*$5.0*	*$3.8*	*$3.0*
Housing Market Normalisation	*$2.2*	*$1.7*	*$1.3*
Residual Asset Value	*$1.6*	*$0.9*	*$0.5*
NPV	**$30.5**	**$19.5**	**$12.0**
BCR	**2.58**	**2.05**	**1.67**

4.3.2.4 Sensitivity Tests

Three sensitivity tests of the Program were undertaken which examined:

- **Test 1** - Increase Maintenance Costs to 2% per annum
- **Test 2** – Reduced the Number of Key Workers per Household from 1.25 to 1.0.

- **Test 3** – Alternative delivery model (i.e. ***Key Worker Housing Subsidy Fund***) in which a financial subsidy of $350,000 is provided to private and/or community sector housing operators seeking to construct key worker housing to compensate for the negative residual value. Assumes a slower delivery and take up of the dwellings over a 5 year period instead of base assumption of 2 years (with a commensurate delay in benefits).

The results of the BCRs at the 7% discount rate for the main scenario and the three Sensitivity Tests are outlined below.

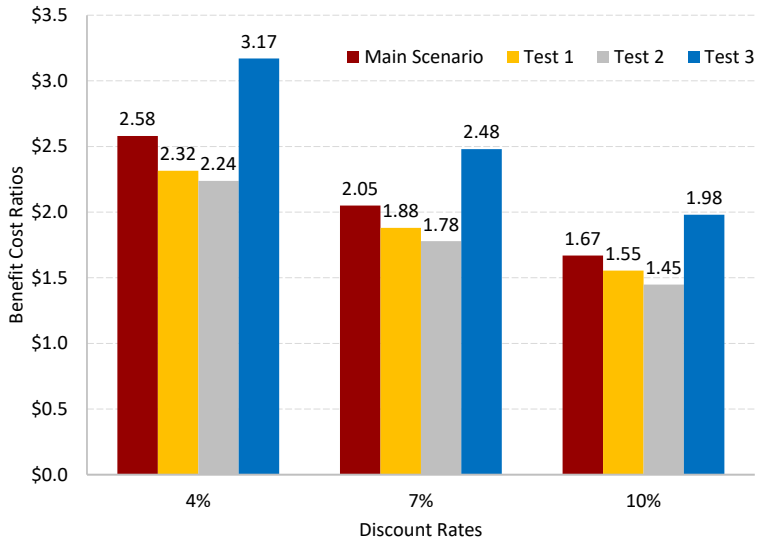

Figure 9 BCRs at 7% Discount Rate by Scenario/Sensitivity Test

Test 1 resulted in the BCR decreasing to between 2.32 at the 4% discount rate and 1.55 at 10%. This is not a significant change and shows that even if maintenance of the dwellings costs twice as much as expected, the project will have a positive return, with every dollar of cost producing at least $1.55 of benefits.

Test 2 had a slightly bigger effect, reducing the BCR to between 2.24 at the 4% discount rate and 1.45 at 10%. This explains that even if each new household only has one key worker, the project will still deliver a high return, with a BCR well above 1 for all discount rates.

Test 3 saw an increase in the BCRs across all discount rates, reaching 2.48 at 7%. This model is however higher risk, as it is dependent on third parties (i.e. community housing organisations or private sector key worker housing developers) to take on the remainder of the capital costs of the development as well as develop the housing in a reasonable time. If non-financial factors impact feasibility, then this take up may be slower or not occur at all. Nevertheless, this supports consideration of ***Key Worker Housing Subsidy Fund***, subsidising the construction of key housing by market, employer and community groups in the region.

4.3.3 Benefits Realisation and Management

The following table outlines the framework for the realisation and management of benefits identified in the CBA.

Table 20 Benefits Realisation Plan

Benefit	Theme/Description	Responsible Stakeholder	Requirement
Construction Supply Chain Benefits	Benefits to the WA and regional construction industry of residential capital investment.	Proponent	Ensure that procured housing and construction products and solutions are sourced from WA companies.
Direct Economic Contribution of New Key Worker Households	The key workers moving into the houses will be able to be work in the region. This benefit measures their productivity by working in the local economy.	Proponents, Housing Managers	Ensure that tenants of housing are actively engaged in sectors requiring key workers in the regional economy.
Household Expenditure Benefit	The contribution to the local economy of the new households spending at local retail businesses.	Proponents Local Governments Local Business	Ensure that tenants of housing are able to access key goods and services to support their household's daily functioning.
Social Benefit of Housing Access	The social benefits of housing access include enhanced labour market productivity, health cost savings, reduced domestic violence, enhanced human capital, reduced costs of crime, and education benefits.	Proponents GROH Community Housing Providers	Ensure that tenants of housing are unable to access private market housing and that the key worker housing represents the only accommodation option available.
Housing Market Normalisation	Benefit relating to housing market normalisation due to no functioning housing market currently.	NA	Incidental benefit linked to new housing supply.
Residual Asset Value	A static residual value compares the direct and indirect costs associated with the construction of a dwelling with the notional market value of that dwelling.	Proponent	Ensure ongoing maintenance is undertaken to preserve asset value over the long-term.

4.4 Employment and Economic Impact

At the core of an Economic Impact Assessment is Input–Output (IO) tables. IO tables are part of the national accounts by the ABS and provide detailed information about the supply and use of products in the Australian economy, and the structure of and inter–relationships between Australian industries.

IO tables are converted, through statistical analysis, into a series of Economic Multipliers. These Multipliers represent the relationship between the direct activity (expenditure or production) associated with a Project and the wider economy.

The results of an EIA are generally presented as both direct effects, that is effects from the direct activity of the Project or event, and indirect effects, which are additional effects from

further rounds of spending in the supply chain. A third or consumption effect, resulting from rounds of consumer spending generated by the additional income in the region can also be calculated.

Econisis has undertaken an Impact Assessment for the WA state economy, focused solely on Simple Multipliers. For the WA economic impacts, this entailed the following tasks:

1. Transaction tables were developed from National IO tables for the WA State economy. For the WA economy, the Regional Transaction Table was calculated by applying employment-based location quotients for the Region, based on the results of the 2016/2021 Census of Population and Housing. This has the effect of excluding spending on imports to the Region since they generate no local economic activity.
2. Economic Multipliers were then generated for WA economy across 119 industry categories defined by the ABS.
3. Construction and operational expenditure and production associated with the development were allocated across 119 industry categories.
4. Economic impacts associated with the Project are calculated.

Econisis has allocated the construction costs for the housing development across the following sectors of the WA economy:

- Heavy and Civil Engineering Construction (10%)
- Residential Building Construction (80%)
- Professional, Scientific and Technical Services
- Public Administration and Regulatory Services.

For the purpose of this assessment, Econisis has assumed a 2 year construction phase.

Based on these industries, Econisis estimates that project will generate a total of $30.3m in direct and indirect economic outputs, along with $5.1m in incomes and contribute $9.5m to the local economy, during the construction phase.

Table 21 Summary of Economic Impact, Construction Phase, Total Impact

Summary	Initial Impact	First Round Impact	Industry Support Impact	Total Impact (Simple Multipliers)
Output ($m)	$17.5	$8.5	$4.4	$30.3
Income ($m)	$2.4	$1.8	$0.9	$5.1
Employment (FTEs)	8.5	5.0	3.1	16.6
Gross Value Added ($m)	$4.6	$3.1	$1.8	$9.5

Table 22 Summary of Economic Impact, Construction Phase, Average Annual Impact[4]

Summary	Initial Impact	First Round Impact	Industry Support Impact	Total Impact (Simple Multipliers)
Output ($m)	$8.8	$4.3	$2.2	$15.2
Income ($m)	$1.2	$0.9	$0.5	$2.6
Employment (FTEs)	4.3	2.5	1.6	8.3
Gross Value Added ($m)	$2.3	$1.6	$0.9	$4.8

The project will support a total of 16.6 direct and indirect FTE construction jobs over the two years.

[4] Note the total impact of the project may be incurred in a single year given the adoption of a modular approach to dwelling design. However, a more conservative two year construction phase has been assumed in line with the CBA.

5 PRELIMINARY IMPLEMENTATION ADVICE

5.1 Risk Evaluation and Management

The following represents a preliminary risk assessment of the Project. This employs a likelihood and consequences based weighted risk assessment methodology to allocate a risk score (1-5 based on the level of certainty of occurring and the severity of the consequences) to each risk assessed. Risks deemed as High or Extreme can then be subject to Project specific mitigation mechanisms to ameliorate the potential impact of those risks.

An overview of the of the risk matrix is outlined below.

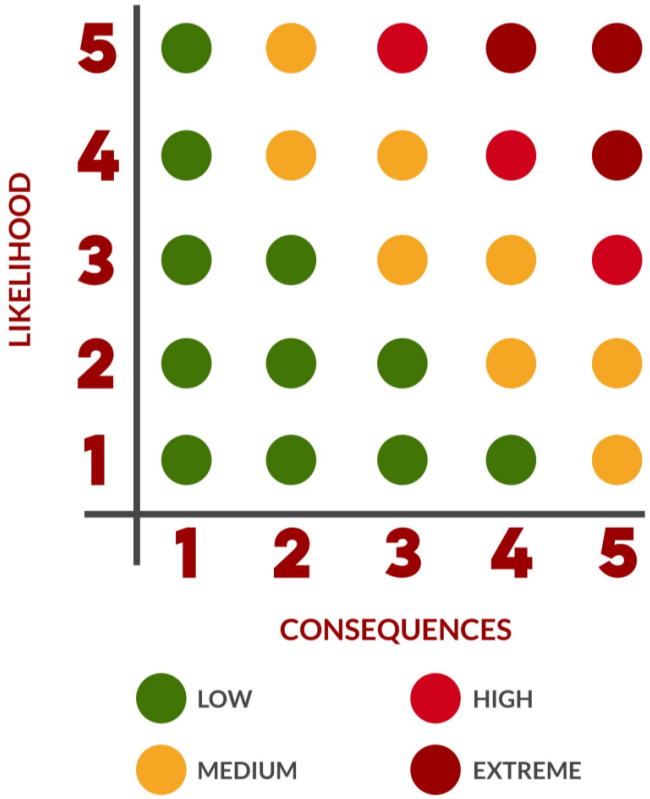

Figure 10 Risk Assessment Matrix

The results of the risk assessment for the Project are summarised in the table below.

Table 23 Preliminary Risk Assessment

Risk	Description	Likelihood	Consequences	Score	Explanation
Project-related housing assets have a negative value upon delivery.	The construction value of housing exceeds that of the market value of the product, resulting in negative values and write downs on the assets.	5	3	15	Mitigated by the intention for the Local Governments to retain ownership of the houses and lease them to key workers. Negative residual value will not be realised as not intention for asset to be sold. Portion of negative value write down offset by financial contribution from State Government
Demand for housing by key workers is less than expected	The demand for housing by key workers in the region is less than expected.	1	3	3	Demand analysis provides strong evidence of demand that exceeds proposed supply 10 fold. Expected that demand and need will outstrip project capacity in the short-term.
Housing construction costs escalate above expected values	Site specific concept designs or market forces may result in housing construction costs escalating above current estimates.	3	3	9	Construction cost escalation rates are expected to continue to moderate in the short-to-medium terms from recent historical highs, decreasing market-related risks. Modular and prefabricated construction methods analysed as part of the financial analysis provide further opportunity for cost management. Financial cost estimates also include regional and project contingencies.
Housing assets devalue over time	Housing assets devalue over time due to use and wear.	2	4	8	Expected that housing will be subject to annualised maintenance. Real 1% maintenance value on assets included as part of whole of lifecycle costings in CBA. Residual asset values based on replacement cost in CBA but included in 20th year.
Economic contribution of workers lower than expected	Economic contribution of key workers accommodated in the housing is lower than expected, reducing economic return on investment	3	3	9	GVA per worker applied in CBA excludes distorting impacts of mining sectors and focuses principally on average worker productivity in sectors linked to key and critical workers. Sensitivity testing confirmed lower key worker yield per dwelling does not undermine value for money of investment.

Risk	Description	Likelihood	Consequences	Score	Explanation
Local Government capacity to manage housing assets limited	The local government's lack the financial and operational capacity to manage housing tenancies and assets into the long-term.	2	2	4	All local government involved have experience in assets and lease management including maintenance. Strong occupancy rates expected to generate partial revenue streams from housing assets which will enable a degree of self-funding of financial imposts on Councils.
Procurement efficiency and scale risks from individual Local Government procurement	Governance options below identify opportunity for each individual Local Government to drive their own procurement process for the dwellings, reducing capacity to capture efficiencies and scale economies from a single collective procurement process.	2	4	8	Managed through the governance of the project in partnership with the State Government. Market-based EOI process covering all Council's as a single project recommended.

No Extreme Risks were identified in the project. One Major Risk was identified due to prevailing negative value conditions in the region's housing market. However, such negative value unlikely to be realized due to own-and-lease model proposed in the delivery model analysis and governance options. Financial contribution by the State Government will also alleviate such impacts.

5.2 Governance Options

Governance of the Project, from a procurement, delivery and ongoing operational perspective, can take a number of potential forms.

The most direct is that each Local Government that is a party to this project and has specific housing opportunities within the project, is afforded individual and discrete governance responsibility to procure, delivery and operate the dwellings as the owners. This model recognises the spatial distribution of the investments within the project region, as well as provides each Council with the opportunity to manage the risks associated with accommodation solutions in their towns.

This decentralised approach however does result in opportunity costs being incurred relative to more centralised governance models. For example, there is a potential for efficiencies to be gained through the collective procurement of housing construction services from the market, through a single Expression of Interest and design and build process. This would likely

require a single entity (either one of the Council's or a new entity) to be response for the engagement and procurement of the housing construction (with proportional financial contributions from each of the Local Governments) with ownership and management then decentralising to the Local Government for tenanting, operations and maintenance.

A further alternative is for a bespoke community housing entity to be established with shareholding by each of the Local Government's to act as a single overarching entity to provide procurement, project management and ongoing operational responsibilities. This would vest the ownership of the dwellings with this regional community housing entity that would then act under instructions and guidance from the Local Government's with the respective product in terms of tenanting and maintenance. This approach provides advantages in centralising administration, procurement and asset management, but would require vesting of land and other Council contributing assets to this entity.

An extension of this model is to partner in the delivery of the housing, namely with an existing Community Housing Organisation. This would represent more of an external management approach, where the assets would vest with the Organisation which would be responsible for management, maintenance and tenanting. This approach would shift some risk from the Local Government's to the CHO but would also reduce the Council's input and influence on matters such as tenanting.

Finally, a potential governance model is for the State Government, through Department of Communities, Development WA or other entities, to build and own the key worker housing in the 4WDL communities. This approach would align the proposed funding contributions of the State with management and governance responsibilities, as well as leverage existing expertise in community housing management. However, it would significantly disconnect key worker housing supply from Local Government influence and need, creating a situation in which the housing is tenanted based on State Government priorities (such as health, justice and education) to the exclusion of other key worker housing needs identified by the Councils. While the priorities of both Local and State Government key worker housing is likely to be highly aligned, particularly relating to public sector housing, it is viewed as critical in the governance model that a strong nexus is maintained with that of the Local Governments involved.

5.3 Next Steps

The following next steps are recommended for consideration:

- Engage with State Government agencies to secure in principle support for the projects and confirm appropriateness of governance and delivery models.
- Seek a design partner on the market to secure designs and costings for the project and/or test the market using already prepared concept designs via a public tender process.
- Provide these details as part of a targeted investment application and funding submission to the State and/or Federal Government (or the relevant identified agencies).

Upon successfully securing funding, it is recommended that a procurement and project management plan (unless already tendered) be established to guide further steps in the delivery and implementation of the project.

6 RECOMMENDATION STATEMENT

This preliminary business case and associated analysis and evidence confirms the recommendation that:

State and/or Federal Government investment be provided to enable the delivery of 33 dwellings across the 4WDL Councils for the purposes of providing accommodation and housing for key workers in the region.

Consideration should also be given to the establishment of a Key Worker Housing Subsidy Fund to supplement the market failure gap by providing financial support and subsidies to market, employer and community led key worker housing projects in the region based on a co-investment model. This program is aimed to incentivise private sector investment targeting privately owned land sites in townships or on rural farming properties (for farm workers).

Consideration should be given to the potential implementation of a Subsidy in partnership with increased GROH and RDAB investments, adding value to and leveraging opportunities created by existing State Government programs.

7 APPENDICES

Attached

ECONISIS

4WDL SHORT-LISTED KEY WORKER HOUSING INVESTMENT

COST BENEFIT ANALYSIS

Client: Shire of Dumbleyung on behalf of 4WDL Shires

Title: 4WDL HOUSING CBA

Version: FINAL

Date: Monday, 26 February 2024

econisis.com.au

ECONISIS

REPORT

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DISCLAIMER

VERSION CONTROL

VERISON	PURPOSE	AUTHOR	REVIEWER	APPROVER	APPROVAL DATE
DraftA	Draft for internal review	TC	MW	MW	14/12/2023
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Final	Final report	MW	EW	MW	26/02/2024

APPROVAL FOR ISSUE

APPROVER	CONTACT	SIGNATURE	DATE
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CONTENTS

FIGURES AND TABLES

1 INTRODUCTION

This section provides an overview of the background and context, scope and structure of the report.

1.1 Background and Context

The Wheatbelt Development Commission (WDC), in partnership with the 4WDL Shires, engaged JE Planning Services and Econisis to analyse key worker housing needs and challenges and highlight opportunities to stimulate housing development and investment in the 4WDL region.

Key worker housing supply and affordability challenges are increasingly common across regional areas in Australia, impacting the ability to attract and retain key workers. The combination of small labour markets, flat and declining populations, comparatively low median housing market prices, and development feasibility issues require coordinated government intervention.

The Key Worker Housing Analysis (KWHA) for the 4WDL region presents evidence to confirm the extent of the housing shortage in the Shires of Williams, Wagin, West Arthur, Woodanilling, Lake Grace and Dumbleyung. The KWHA includes a Regional Housing Economic Analysis that identifies and tests the key feasibility of local government-led housing delivery, ownership and management models across Australia.

Aggregating data across local government areas in stalled regional markets aims to create sufficient scale for commercially feasible housing development, together with government investment intervention to fund the 'failed market' gap. The KWHA establishes the scale of demand for purpose-built and appropriate key worker housing, revealing a lack of accommodation to support lone, small and aged households. The expansive land area of the 4WDL region, combined with the comparatively small size of many communities, impacts the viability (and interest) of private housing construction and supply.

1.2 Report Scope and Structure

- **Introduction** - An overview of the background, scope, and structure of the report;
- **Project Context** - Outlining the key attributes and drivers of the region and the project;
- **Cost Benefit Analysis** - Outlining the methodology, assumptions, and results of a cost benefit analysis;
- **Economic Impact Assessment** - Results of an input-output based regional assessment of the economic impacts of construction and operational expenditure; and
- **Conclusions and Recommendations** - Outlining the key conclusions and recommendations relating to the project.

The 4WDL region (See Figure 1) encompasses a land area of approximately 21,135 km2 and comprises the following Local Government Areas (LGAs):

- The Shire of Wagin
- The Shire of Williams
- The Shire of West Arthur
- The Shire of Woodanilling
- The Shire of Dumbleyung
- The Shire of Lake Grace

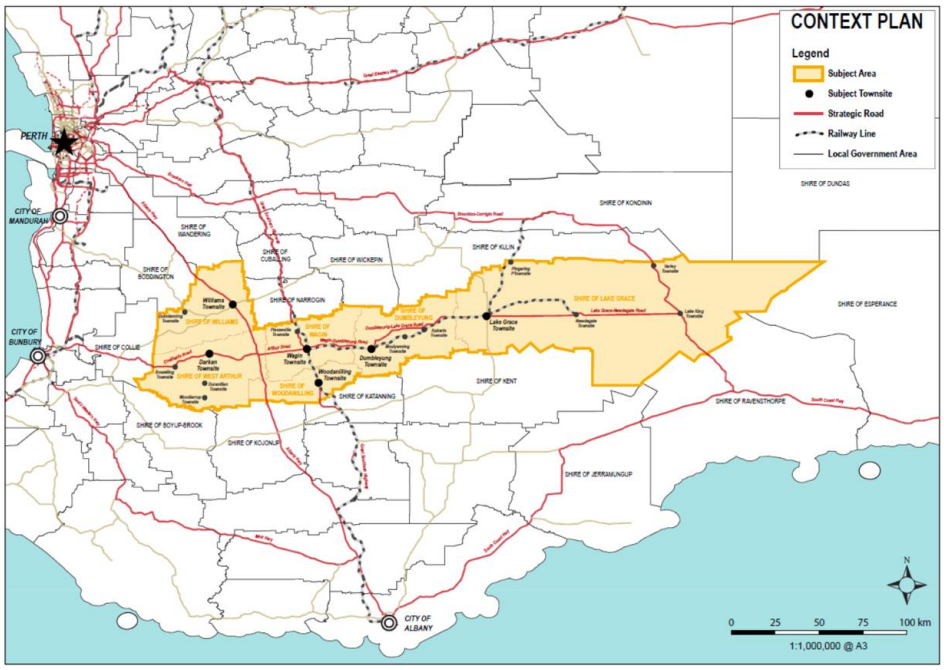

Figure 1 KWHA Study Area

1.3 Glossary and Abbreviations

The following terms and abbreviations are referenced in this report.

Table 1 Glossary and Abbreviations

Term/Abbreviation	Definition
ABS	Australian Bureau of Statistics
BCR	Benefit Cost Ratio
CBA	Cost Benefit Assessment
EIA	Economic Impact Assessment
Externalities	External Costs or Benefits not captured in market prices
FTE	Full time equivalent
GVA	Gross Value Added
IO	Input-output
KWHA	Key Worker Housing Analysis
LGA	Local Government Area
NPV	Net Present Value
OBPR	Office of Best Practice Regulation
SA2	Statistical Area 2
WDC	Wheatbelt Development Commission
YTD	Year to date

2 PROJECT CONTEXT

This section outlines the key attributes and drivers of the region and the project.

2.1 About the Wheatbelt

Covering an area of 154,862 square kilometres, the Wheatbelt has diverse landscapes that stretch from the clear waters of the Central Coast to the highly productive lands of the Central Midlands and Wheatbelt South, the gentle hills and streams of the Avon Valley and the spectacular terrain in the Central East[1].

The Wheatbelt consists of five sub-regions: Avon, Central Coast, Central East, Central Midlands and Wheatbelt South. Each sub-region is serviced by a sub-regional centre (Northam, Jurien Bay, Merredin, Moora and Narrogin) and has unique economic and population drivers.

With a population of 75,000, the Wheatbelt is the third most populous region in the State. This population is highly dispersed with over 200 towns and settlements spread across 154,862 square kilometres. The Region is governed by 42 local governments, with no single dominant regional centre.

With an average annual compound economic growth rate of 8.2% and a diverse economic base, the Wheatbelt is well positioned to make a significant contribution to the State and Nation's growth.

The region has an increasingly diverse economic base with growth in mining, transport and logistics, manufacturing and construction sectors underpinned by a strong agriculture sector.

With abundant renewable energy and a wealth of natural resources, the Wheatbelt is well positioned to capitalise on its competitive advantages. An area that has long benefited from an entrepreneurial spirit, the Wheatbelt is known as a region of innovation. Its proximity to Perth, available land and significant infrastructure see the Wheatbelt poised to build on economic opportunities well into the future[2].

2.2 Population and Demographic Profile

2.2.1 Population

The total population of the catchment area is 6,117 people.[3] It has been slowly declining since 2001 and WA Tomorrow forecasts expect it to decline to 3,612 people by 2031.[4] Population growth within the region is constrained by the availability of housing to meet the needs of new workers and their families.

[1] WDC (2023) The Wheatbelt, accessed at https://www.wheatbelt.wa.gov.au/our-region/wheatbelt/
[2] WDC (2023) Our Region, accessed at https://www.wheatbelt.wa.gov.au/our-region/
[3] ABS (2023) Regional Population by Age and Sex, accessed at abs.gov.au
[4] WAPC (2017) WA Tomorrow No 10 Population Projections accessed at wapc.wa.gov.au

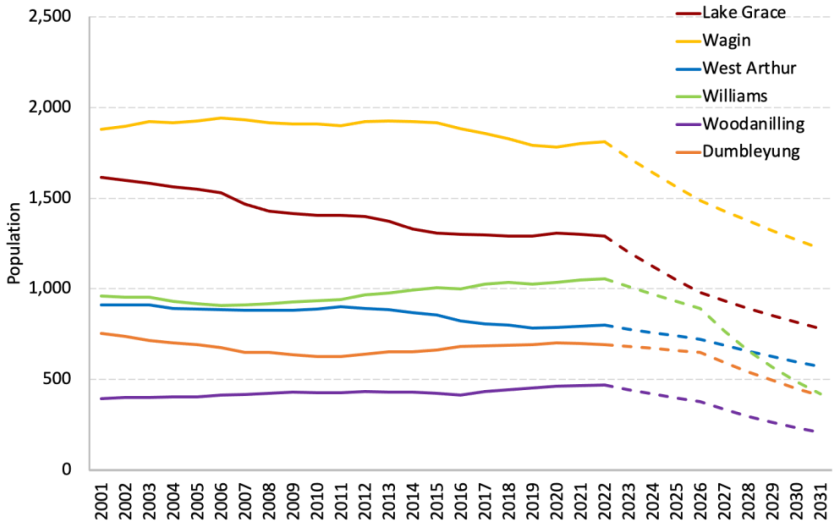

Figure 2 Historical and Projected Population, All LGAs, 2001-2031

2.2.2 Census Profile

A summary of key attributes of the "project location" from the 2021 Census of Population and Housing is provided in the table below.

Table 2 Census Socioeconomic Profile, Catchment Area, 2021[5]

Indicators	Wagin	West Arthur	Williams	Woodanilling	Lake Grace	Dumbleyung	Western Australia	Australia
Headline								
Population	1,761	773	1,021	448	1,265	681	2,660,026	25,422,788
Median Age	49	50	41	45	41	44	38	38
Average Household Size	2.2	2.2	2.4	2.5	2.4	2.3	2.5	2.5
Share of Population 0-14 (%)	15.7%	17.1%	21.9%	21.4%	19.7%	20.2%	19.0%	18.2%
Share of Population 65+ (%)	27.4%	23.4%	29.0%	21.6%	16.5%	19.7%	16.1%	17.2%
Born in Australia	72.7%	76.6%	77.2%	77.0%	78.0%	73.3%	62.0%	66.9%
Share of People Attending Educational Institutions								
Pre-School	17	5	22	8	27	10	45,452	484,185
Primary	114	57	93	34	111	59	222,555	2,075,224
Primary - Government	22.6%	23.3%	28.8%	24.6%	37.9%	26.5%	19.3%	18.5%
Primary - Catholic	0.9%	1.9%	3.3%	3.0%	0.0%	0.0%	4.5%	5.2%
Primary - other non-Government	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	2.2%

[5] ABS (2022) Census of Population and Housing 2021, accessed at abs.gov.au

Indicators	Wagin	West Arthur	Williams	Woodanilling	Lake Grace	Dumbleyung	Western Australia	Australia
Secondary	90	30	38	27	44	23	175,841	1,629,624
Secondary - Government	16.7%	12.0%	12.3%	15.7%	10.1%	6.1%	12.7%	12.2%
Secondary - Catholic	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	4.5%	4.8%
Secondary - other non-Government	2.0%	0.0%	0.0%	0.0%	5.7%	1.7%	4.6%	4.2%
Tertiary	38	15	31	12	26	12	172,239	1,789,994
Tertiary - Vocational education (including TAFE and private training providers)	4.1%	4.3%	6.6%	7.5%	2.7%	3.9%	7.4%	7.8%
Tertiary - University of other higher education	2.6%	4.8%	3.0%	4.5%	4.7%	1.7%	13.9%	15.4%
Weekly Incomes								
Personal	$686	$804	$1,015	$741	$1,001	$802	$848	$805
Family	$1,718	$1,708	$2,243	$1,663	$2,100	$1,670	$2,214	$2,120
Household	$1,183	$1,325	$1,739	$1,385	$1,715	$1,260	$1,815	$1,746
Share of Household								
Couple family without children	33.1%	37.1%	37.1%	29.5%	34.1%	37.0%	28.0%	27.6%
Couple family with children	18.8%	24.2%	28.7%	31.9%	31.3%	27.3%	32.0%	31.1%
One parent family	9.4%	6.0%	6.5%	7.8%	3.9%	2.1%	11.0%	11.3%
Other family	0.9%	1.7%	0.0%	0.0%	0.6%	0.0%	1.0%	1.2%
Lone Person Households	34.8%	28.5%	25.7%	26.5%	28.5%	29.8%	25.0%	25.1%
Group Households	3.0%	2.6%	1.9%	4.2%	1.7%	3.8%	3.0%	3.8%
Dwelling Occupancy								
Occupied	84.7%	88.0%	80.8%	77.4%	69.8%	81.6%	89.1%	89.9%
Unoccupied	15.5%	12.3%	19.9%	22.6%	30.4%	19.4%	10.9%	10.1%
Dwelling Type								
Separate house	93.6%	97.3%	95.1%	100.0%	93.4%	95.3%	79.7%	72.3%
Semi-detached, row or terrace house, townhouse etc	5.6%	2.0%	3.3%	0.0%	3.8%	3.4%	13.0%	12.6%
Flat or apartment	0.0%	0.0%	1.1%	0.0%	0.6%	0.0%	6.5%	14.2%
Other dwelling	0.6%	0.0%	0.0%	0.0%	0.9%	0.0%	0.6%	0.6%
Tenure								
Owned outright	45.2%	51.9%	42.7%	49.1%	45.2%	54.9%	29.2%	31.0%
Owned with a mortgage	27.0%	18.4%	22.5%	21.7%	19.6%	18.7%	40.0%	35.0%
Rented	21.3%	16.0%	21.9%	14.9%	20.7%	12.3%	27.3%	30.6%

Indicators	Wagin	West Arthur	Williams	Woodanilling	Lake Grace	Dumbleyung	Western Australia	Australia
Other tenure type	3.5%	11.3%	11.5%	11.8%	11.9%	10.2%	2.1%	2.0%
Tenure type not stated	2.2%	3.4%	1.9%	0.0%	3.2%	2.1%	1.4%	1.5%

Key findings from the socio-economic profile include:

- All LGAs have older median ages, and higher shares of people aged 65+.
- Most of the LGA's have lower primary school participation than the WA average, and all LGAs have lower secondary school participation rates than WA.
- Personal Incomes in Williams and Lake Grace are higher than average. Only Williams family income is higher than the WA average. All Household Incomes are lower than the WA average.
- Other than Woodanilling, the most common type of household is Couple Family without Children. There is also a greater share of Lone households in all the LGAs compared to the WA average.
- Majority of houses are separate dwellings and are most commonly owned outright. The percentage of outright ownership is much higher than the WA average.

2.2.3 Number of Registered Businesses

Lake Grace has the most registered businesses in the catchment area, with 332 as of 2022. This indicates a higher level of commercial activity in this region.

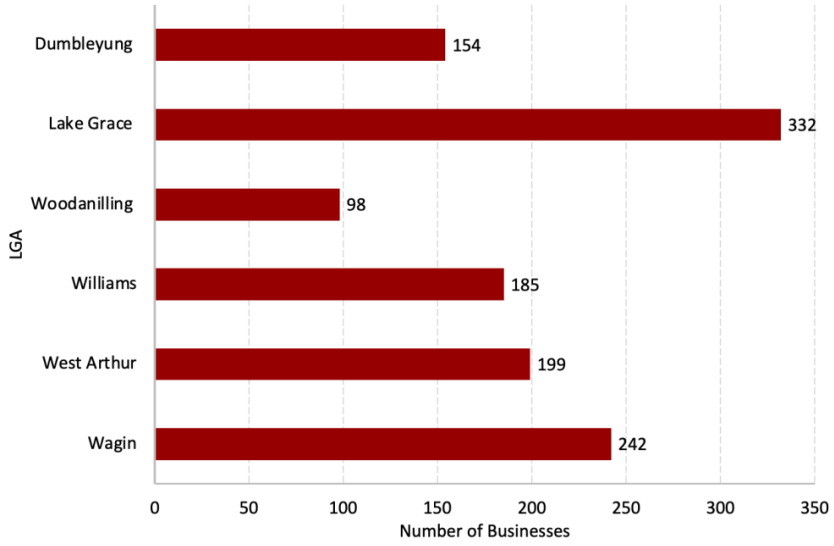

Figure 3 Business Registrations, Catchment Area, 2022[6]

As of June 2022, 716 businesses are in the Agriculture, Forestry and Fishing industry, comprising the vast majority of businesses in the catchment area. Other industries with a larger number of businesses include Rental, Hiring and Real Estate Services and Construction.

[6]ABS (2023) Count of Businesses accessed at abs.gov.au

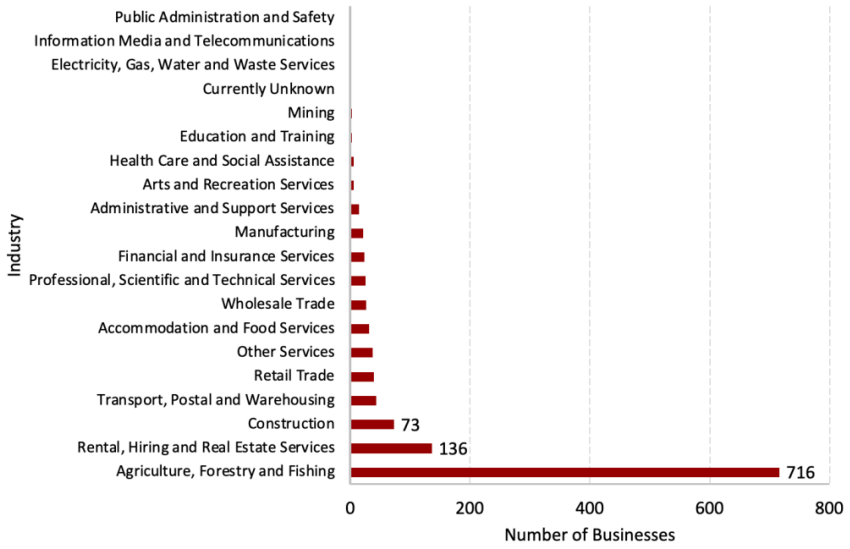

Figure 4 Business Registrations by Industry, Catchment Area, 2022

2.2.4 Unemployment Rate

The most recent unemployment data from June 2022 shows that Woodanilling had the highest unemployment rate of 5.1% and Dumbleyung and Lake Grace had the lowest at 1.7%.

Table 3 Unemployment Rate, Select LGAs, June 2022[7]

LGA	Unemployment Rate
Dumbleyung	1.7%
Lake Grace	1.7%
Woodanilling	5.1%
Williams	2.7%
West Arthur	2.8%
Wagin	2.7%
Western Australia	3.3%

2.3 Role of Housing in Key Worker Attraction and Retention

Housing availability in regional and remote areas plays a critical role in supporting the attraction and retention of key workers and their families. This supports the use of "worker productivity" values in monetising the opportunity cost associated with the non-delivery of the housing needed in subject communities. This reflects the fact that without the required housing, the economic and social activity associated with the accommodated workers will not be realised in the region.

2.3.1 What is Worker Productivity?

Worker productivity is the Gross Value Added per Worker in an economy. Gross Value Added is the sum of all value adding activity in the economy and accounts for the vast majority of Gross Product (Regional, State or Domestic).

By dividing GVA by the number of workers in an economy, the relative productivity of an individual worker can be estimated. This same approach can be adopted for individual industries using Industry

[7] National Skills Commission (2022) Small Area Labour Markets, accessed at https://www.nationalskillscommission.gov.au/topics/small-area-labour-markets

Value Added and the workers within that industry. This approach provides greater level of detail, recognising the different levels of economic productivity associated with different industries.

Using REMPLAN data for Western Australia, Econisis has provided the following worker productivity estimates by industry and for the economy as a whole.

Table 4 Worker Productivity, Western Australia, 2021[8]

Industry sector	GVA	Workers	Worker Productivity
Accommodation & Food Services	$4,799,749,445	89,363	$53,711
Administrative & Support Services	$5,350,859,121	42,251	$126,645
Agriculture, Forestry & Fishing	$4,904,099,902	31,176	$157,304
Arts & Recreation Services	$2,024,573,626	22,117	$91,539
Construction	$22,692,770,872	121,303	$187,075
Education & Training	$13,871,962,665	119,759	$115,832
Electricity, Gas, Water & Waste Services	$7,153,527,101	15,908	$449,681
Financial & Insurance Services	$12,681,254,944	29,233	$433,799
Health Care & Social Assistance	$19,958,837,715	186,114	$107,240
Information Media & Telecommunications	$3,131,017,914	10,442	$299,848
Manufacturing	$12,788,822,016	72,002	$177,618
Mining	$144,061,817,298	105,960	$1,359,587
Other Services	$4,349,487,922	52,983	$82,092
Professional, Scientific & Technical Services	$15,185,953,841	94,061	$161,448
Public Administration & Safety	$15,205,184,273	80,903	$187,943
Rental, Hiring & Real Estate Services	$30,614,580,989	19,497	$1,570,220
Retail Trade	$9,806,432,828	119,926	$81,771
Transport, Postal & Warehousing	$11,343,321,158	62,352	$181,924
Wholesale Trade	$7,237,711,213	33,449	$216,380
Average	$347,161,964,844	1,308,799	$265,252
Average Net Real Estate and Mining	$193,293,714,718	1,082,913	$178,494
Education, Health, Public Admin/Safety Only Average	$49,035,984,652	386,776	$126,781

Overall the average worker in WA produces $265,252 worth of value added each year.

However, this figure is inflated by a small number of high value adding sectors, namely Mining and Rental, Hiring and Real Estate Services. Removing these and the worker productivity value falls to $178,494 per worker.

Additionally, this estimate continues to include a combination of both public and private sector industries. To get a proxy of public sector, the average worker productivity values of Education and Training, Health Care and Social Assistance and Public Administration and Safety industries can be taken. This reduces the worker productivity value to $126,781.

These values are for Western Australia as a whole to reflect the data available from sources such as REMPLAN and the ABS.

2.4 Short-Listed Housing Project

The table below lists the identified project-ready shortlisted sites selected to provide key worker housing in the 4WDL region. The shortlisted sites provide a maximum of 33 key worker modular

[8] REMPLAN (2023) Economic and Employment, Western Australia accessed at https://app.remplan.com.au/eda-westernaustralia/economy/industries/employment?state=lGv2sz!elxMC6yQNu3wVNqteKmG0SDHdfP7nlrl2ljs3pOpNfPf7yhRfBIGG2qINAZ

dwellings, conservatively addressing approximately 50% of the current key worker housing deficit. The site's location and maximum dwelling yield potential are also listed. Each site is detailed in the discussion by townsite in the relevant sections below.

Table 5 4WDL Shortlisted Sites for Housing Investment Concepts

Site #	Local Government	Address	Dwelling yield
1	Shire of Dumbleyung	8-10 (Lot 6 and 7) Harvey Street, Dumbleyung	6
2	Shire of Williams	25- 29 (Lots 72,73 and 74) Hynes Court, Williams	4
3	Shire of Wagin	8-10 (Lots 19 and 18) Khedive Street, Wagin	3
4	Shire of Lake Grace	Portion of Lot 500 Wattle Road, Lake Grace	6
5	Shire of West Arthur	Portion of Lot 309 Burrowes (West) Street, Darkan	4
6	Shire of Woodanilling	13 (Lot 129) Cardigan Street, Woodanilling	1 + ancillary
7	Shire of Lake Grace	Portion of Lot 9002 Griffin Road, Lake Grace	2
8	Shire of Wagin	3 (Lot 19) Omdurman, Wagin	6
Total Dwellings			**33 dwellings**

3 COST BENEFIT ANALYSIS

This section outlines the methodology, assumptions, and results of a cost benefit analysis.

3.1 Methodology

A CBA is the most commonly used, and most comprehensive, of the economic evaluation techniques. Essentially, a CBA compares the monetised benefits and costs of a project to evaluate the desirability of a project. This approach is the most appropriate to assess the net economic benefits that accrue from the two development options.

The CBA steps include:

1. Identify the quantifiable benefits that can be monetised;
2. Calculate the value (in monetary terms) of the quantified incremental benefits and capital costs in net present value (NPV) terms using the discount rates;
3. Calculate the benefit cost ratio (BCR) – the total present value of all net benefits compared to the present value of capital costs to determine the ratio to which incremental net benefits exceed (or undershoot) incremental costs related with the upgrade; and
4. Undertake a sensitivity assessment.

3.1.1 Discount Rates

Discounting is the reverse of adding (or compounding) interest. It reduces the monetary value of future costs and benefits back to a common time dimension – the base date. Discounting satisfies the view that people prefer immediate benefits over future benefits (social time preference), and it also enables the opportunity cost to be reflected (opportunity cost of capital). Recognising the potential for multiple audiences for the business cases, real discount rates of 3, 7 and 10% have been applied. This complies with recommendations set by the Office of Impact Analysis (OIA) at the Federal Government level and Western Australian Treasury guidelines.

Modelling of quantifiable benefits and costs are developed over a 20-year timeframe (post construction phase).

3.1.2 Cost of Capital Approach

The cost benefit assessment undertaken in this report represents a “cost of capital” assessment. This approach focuses primarily on the up-front capital costs of the project with reduced consideration of ongoing costs (beyond basic operational cost impacts). The reason for this approach is twofold:

- Firstly, it reflects the stage of the project design and concept that the Cost Benefit Assessment is testing – early stage concepts typically have a capital cost estimate but may not have detailed cash flow or maintenance cost estimates. As such, the “cost of capital” approach does not consider ongoing cashflow consideration which includes discounting any financial revenues that could be secured by the project to offset unknown maintenance costs;
- Secondly, this economic business case specifically seeks to develop or address the validity of potential capital investment in the project. As such, evidence is required, through the CBA, of the potential return on investment (in the form of economic and social benefits) to inform this capital decision.

3.1.3 Comparison with the Base Case

For the purpose of this report, Econisis has undertaken a cost benefit assessment of the net additional benefits and costs above and beyond the “project”. All NPVs and BCRs generated as part of the Cost Benefit Analysis are reflective of the net increase in gross value added and economic and social benefit beyond the “project”

3.1.4 Key Assumptions

The following assumptions have been considered in the evaluation of the benefits.

Table 6 CBA Assumptions

Assumption	Details
Annual Maintenance Cost	1% of Capital Costs annually
Length of Construction Phase	2 year
Supply Chain Multiplier	7.1%[9]
Average Worker Productivity WA, Education, Health, Public Admin/Safety Industries Only	$126,781[10]
Number of New Households	33
Number of Key Workers per Household	1.25
Attribution Rate of Productivity to Housing Access	50%
Average Household Yearly Expenditure	$33,000[11]
GVA to Expenditure Conversion Rate	50%
Enhanced Labour Market Productivity per Household	$3,770[12]
Health Cost Savings per Household	$2,832[13]
Reduced Domestic Violence per Household	$2,462[14]
Enhanced Human Capital per Household	$1,838[15]
Reduced Costs of Crime per Household	$844[16]
Education Benefits per Household	$168[17]
Annual Value of Normalisation of Housing Market	1% of Capital Cost

3.2 Housing Development Costs

The maximum potential dwelling yield and estimated service and construction costs for each shortlisted development site were prepared by Chadwick Consulting and summarized in the KWHDC Report.

The total cost for the provision of the 33 key worker modular homes is estimated to be approximately $17,500,000, with an average estimated cost for servicing and construction of each dwelling being $525,971. Site and servicing costs range between $40K per dwelling for larger developments and upwards of $50K per dwelling as the development yield reduces. Headworks costs are location specific.

[9] Based on WA specific regionalised input/output table of non-residential capital expenditure.
[10] REMPLAN (2021) Economic and Employment, Western Australia accessed at https://app.remplan.com.au/eda-westernaustralia/economy/industries/employment?state=lGv2sz!elxMC6yQNu3wVNqteKmG0SDHdfP7nIrl2ljs3pOpNfPf7yhRfBIGG2qINAZ
[11] Market Info 2022 (Market Data Systems)
[12] SGS Economics and Planning (2022) Give Me Shelter. Accessed at https://sgsep.com.au/assets/main/SGS-Economics-and-Planning_Give-Me-Shelter.pdf
[13] See above.
[14] See above.
[15] See above.
[16] See above.
[17] See above.

Table 7 Shortlisted Sites to accommodate Housing Investment Concepts

Site	Address	Average Development Cost per dwelling	Number of Dwellings	Total Cost
1	8-10 (Lot 6 and 7) Harvey Street, Dumbleyung	$ 534,304	6	$ 3,205,825
2	25-29 (Lots 72,73 and 74) Hynes Court, Williams	$ 533,233	4	$ 2,132,933
3	8-10 (Lots 19 and 18) Khedive Street, Wagin	$ 532,512	3	$ 1,597,535
4	Portion of Lot 500 Wattle Road, Lake Grace	$ 533,162	6	$ 3,198,972
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6	13 (Lot 129) Cardigan Street, Woodanilling	$ 474,292	2	$ 948,585
7	Portion of Lot 9002 Griffin Road, Lake Grace	$ 533,258	2	$ 1,066,515
8	3 (Lot 19) Omburman Street Wagin	$ 524,242	6	$ 3,145,454
TOTAL		**$ 525,971**	**33**	**$ 17,466,869**

3.3 Benefits Statement

A range of direct economic and social benefits of the Project have been identified. Those benefits which are capable of being monetised for inclusion in the CBA are outlined in the table below. Refer to the assumptions table in Section 3.1.4 for specific values.

Table 2 Benefits Statement

Benefit	Theme/Description	Method of Calculation
Construction Supply Chain Benefits	Benefits to the WA and regional construction industry of residential capital investment.	Applied a first round GVA economic multiplier of 7.1% to the capital expenditure of the program of $17,466,869. Based on WA specific regionalised input/output transaction table. Assumed a construction phase of 2 years.
Direct Economic Contribution of New Key Worker Households	The key workers moving into the houses will be able to be work in the region. This benefit measures their productivity by working in the local economy.	The relative productivity of an individual worker was calculated by dividing the GVA of the Education, Health and Public Safety/Admin industries in WA by the number of workers in these industries. This was multiplied by the 33 new households. It was assumed that there will be 1.25 key workers per household. An attribution rate of 50% was applied to account for other factors contributing to a worker's productivity e.g. the company they work for.
Household Expenditure Benefit	The contribution to the local economy of the new households spending at local retail businesses.	An average household's retail related expenditure is $33,000 per year[18]. This was applied to the 33 new households and a GVA to expenditure conversion rate of 50% was applied.
Social Benefit of Housing Access	The social benefits of housing access include enhanced labour market productivity, health cost savings, reduced domestic violence, enhanced human capital,	These social benefits were quantified and collated by SGS Economics in their 2022 'Give Me Shelter' report. The combined total of these benefits per

[18] Market Info 2022 (Market Data Systems)

Benefit	Theme/Description	Method of Calculation
	reduced costs of crime, and education benefits.	household is $11,914[19]. This was applied to the 33 households.
Housing Market Normalisation	Benefit relating to housing market normalisation due to no functioning housing market currently.	Multiplied the construction cost of the homes by 1% each year.
Residual Asset Value	A static residual value compares the direct and indirect costs associated with the construction of a dwelling with the notional market value of that dwelling.	Calculated by dividing the construction cost by 25 years and multiplying it by 5. Applied in the final year of the asset lifetime (20 years after construction).

3.4 Cost Benefit Analysis Results

This section provides an overview of the present value and composition of costs and benefits for the project. It includes an outline of the Benefit Cost Ratios and Net Present Value results for each project.

3.4.1 Costs

The evaluation estimates the present value of costs to range from $18m at the 10% discount rate to $19.3m at the 4% discount rate. The majority of this is the capital cost, with the remainder an annual maintenance cost.

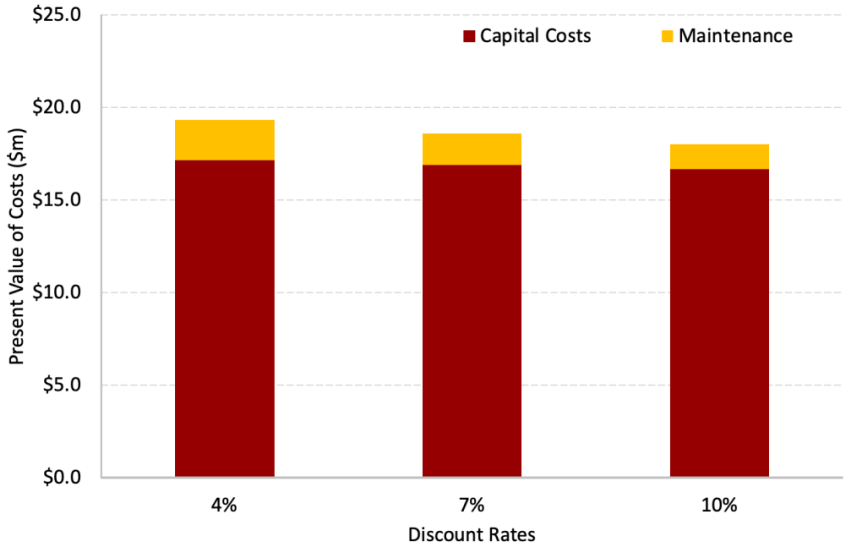

Figure 5 Present Value of Costs

3.4.2 Value of Benefits

Overall, the benefits of the project are approximately $38.1m at the 7% discount rate. This ranges from $30m at the 10% discount rate to $49.9m at 4%. These benefit values compare very favourably against an estimated capital expenditure cost of circa $17.5m.

[19] SGS Economics and Planning (2022) Give Me Shelter. Accessed at https://sgsep.com.au/assets/main/SGS-Economics-and-Planning_Give-Me-Shelter.pdf

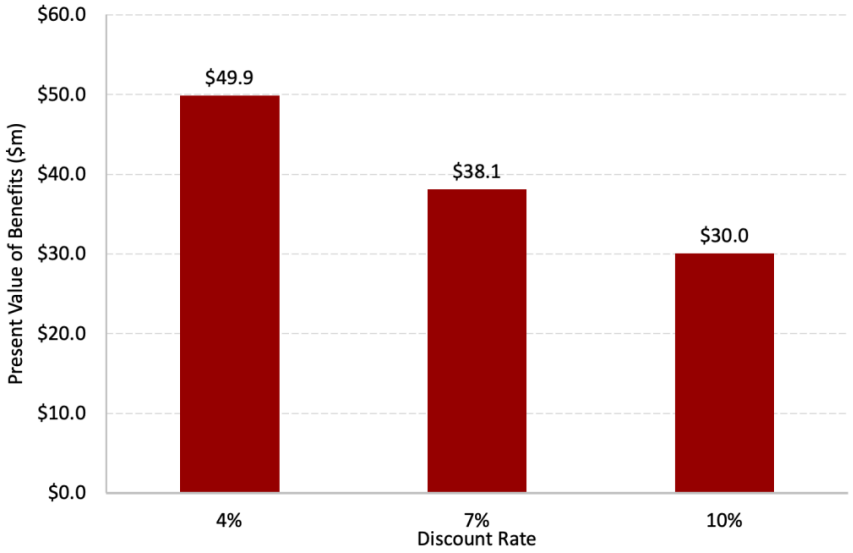

Figure 6 Present Value of Benefits

The largest benefit expected over the 20-year assessment period for the project (at a 7% discount rate) is the economic contribution of key workers, accounting for $25.26m. Note that this is based on a partial attribution of key worker economic productivity only. Following this are household expenditure-based economic impacts, which account for $5.26m of benefits and social benefits of housing access, which account for $3.8m.

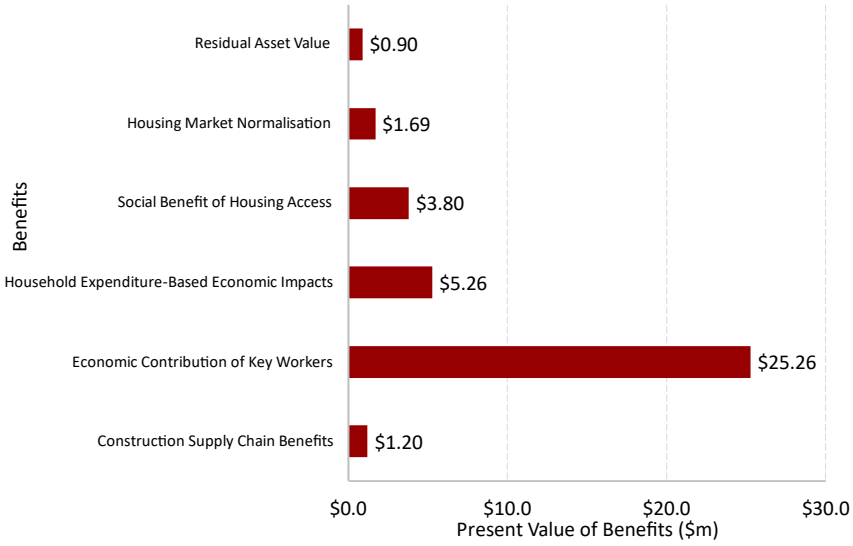

Figure 7 Present Value of Benefits ($m)

Each benefit was categorised as either social or economic. The majority of the benefit of this project is economic, with 14% of benefits being social. This is due to the significant value of worker contribution benefits.

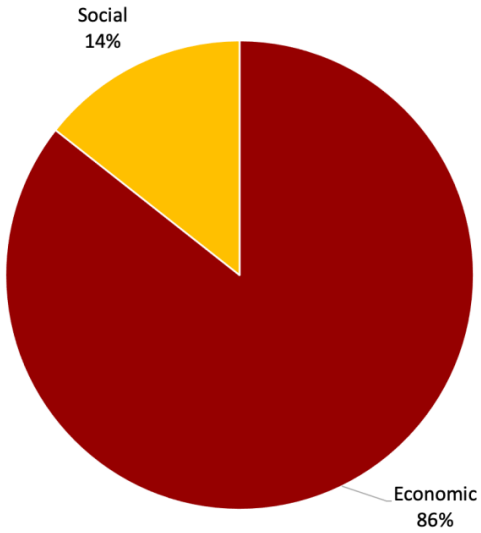

Figure 8 Composition of Benefits, Economic and Social Benefit Categories, at the 7% Discount Rate

3.4.3 NPV and BCR

Comparing the present value of benefits to that of costs, Econisis estimates the project will yield a net present value of between $30.5m over 20 years at the 4% discount rate and $12m at the 10% discount rate. All net present value estimates are above $0, meaning that the present value of the benefits is greater than that of the costs across all discount rates.

Figure 9 Net Present Value by Discount Rate

The benefit cost ratios ranged from 2.58 at the 4% discount rate to 1.67 at the 10% discount rate. Any BCR above 1.0 is regarded as positive, with BCRs at or approaching 3.0 particularly positive. This reflects the fact that benefits that accrue in the future have a higher degree of uncertainty, and while this is addressed to an extent by the discount rates, a higher BCR provides the project a

greater "buffer" that it will indeed yield benefits greater than the costs. In this instance, the predominantly economic nature of the assets means that the 7% discount rate is most relevant.

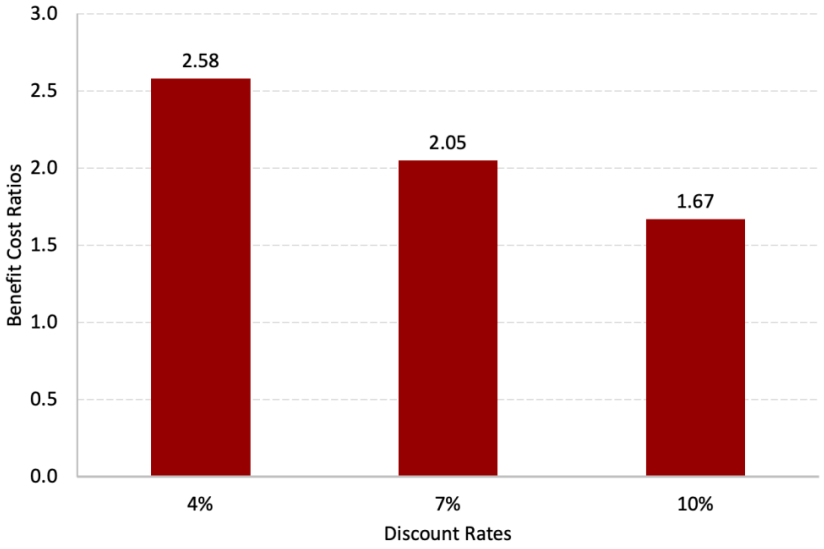

Figure 10 Benefit Cost Ratio by Discount Rate

The below table summarises the results of the cost benefit analysis.

Table 8 Summary of Cost Benefit Analysis Results

Summary	4%	7%	10%
Total Costs	-$19.3	-$18.6	-$18.0
Capital Costs	-$17.1	-$16.9	-$16.7
Maintenance	-$2.2	-$1.7	-$1.3
Benefits	$49.9	$38.1	$30.0
Construction Supply Chain Benefits	$1.2	$1.2	$1.2
Economic Contribution of Key Workers	$33.0	$25.3	$19.9
Household Expenditure-Based Economic Impacts	$6.9	$5.3	$4.1
Social Benefit of Housing Access	$5.0	$3.8	$3.0
Housing Market Normalisation	$2.2	$1.7	$1.3
Residual Asset Value	$1.6	$0.9	$0.5
NPV	$30.5	$19.5	$12.0
BCR	**2.58**	**2.05**	**1.67**

3.4.4 Sensitivity Tests

Three sensitivity tests of the Program were undertaken which examined:

- **Test 1** Increase Maintenance Costs to 2% per annum
- **Test 2** – Reduced the Number of Key Workers per Household from 1.25 to 1.0.

- **Test 3** – Alternative delivery model in which a financial subsidy of $350,00020 is provided to private and/or community sector housing operators seeking to construct key worker housing to compensate for the negative residual value. Assumes a slower delivery and take up of the dwellings over a 5 year period instead of base assumption of 2 years (with a commensurate delay in benefits).

The results of the BCRs at the 7% discount rate for the main scenario and the three Sensitivity Tests are outlined below.

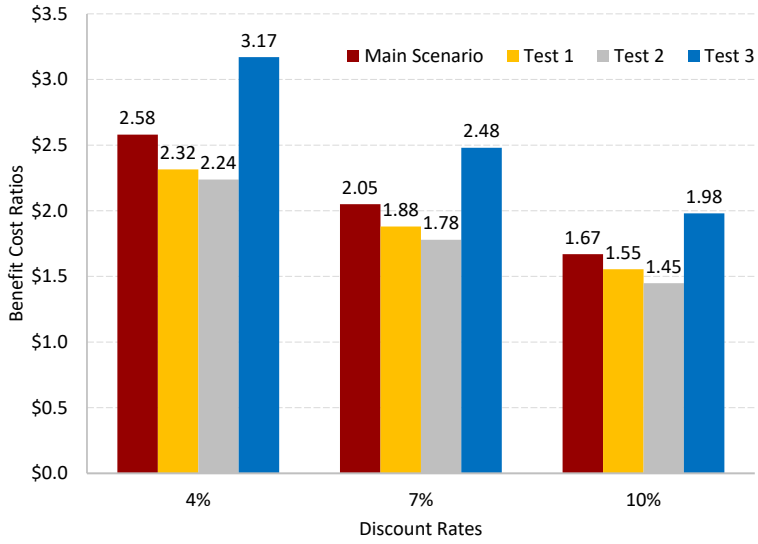

Figure 11 BCRs at 7% Discount Rate by Scenario/Sensitivity Test

Test 1 resulted in the BCR decreasing to between 2.32 at the 4% discount rate and 1.55 at 10%. This is not a significant change and shows that even if maintenance of the dwellings costs twice as much as expected, the project will have a positive return, with every dollar of cost producing at least $1.55 of benefits.

Test 2 had a slightly bigger effect, reducing the BCR to between 2.24 at the 4% discount rate and 1.45 at 10%. This explains that even if each new household only has one key worker, the project will still deliver a high return, with a BCR well above 1 for all discount rates.

Test 3 saw an increase in the BCRs across all discount rates, reaching 2.48 at 7%. This model is however higher risk, as it is dependent on third parties (i.e. community housing organisations or private sector key worker housing developers) to take on the remainder of the capital costs of the development as well as develop the housing in a reasonable time. If non-financial factors impact feasibility, then this take up may be slower or not occur at all.

[20] Derived based on 65% of the capital value estimates of proposed dwellings from Chadwick Consulting, assuming the remaining 35% and associated land is provided by the market-based proponent.

4 ECONOMIC AND EMPLOYMENT IMPACT ASSESSMENT

This section provides an estimate of the direct and indirect economic and employment impacts of the project construction phase.

4.1 Methodology and Approach

At the core of an Economic Impact Assessment is Input–Output (IO) tables. IO tables are part of the national accounts by the ABS and provide detailed information about the supply and use of products in the Australian economy, and the structure of and inter–relationships between Australian industries.

IO tables are converted, through statistical analysis, into a series of Economic Multipliers. These Multipliers represent the relationship between the direct activity (expenditure or production) associated with a Project and the wider economy.

The results of an EIA are generally presented as both direct effects, that is effects from the direct activity of the Project or event, and indirect effects, which are additional effects from further rounds of spending in the supply chain. A third or consumption effect, resulting from rounds of consumer spending generated by the additional income in the region can also be calculated.

There are two broad levels of Multipliers that can be utilised for Impact Assessments:

1. **Simple Multipliers** – including the Direct or Initial Effect, First Round and Industry Supply Chain effects.
2. **Total Multipliers** – including the Simple Multipliers plus subsequent Induced Production and Household Consumptions effects.

Impact Assessments can assess:

- **Output** - the actual dollar amount spent on the Project in the Region.
- **Income** - the number of wages and salaries paid to labour.
- **Employment** - the full-time equivalent (FTE) per annum employment generated by the Project; and
- **Value Added** - the value added to materials and labour expended on the Project.

Econisis has undertaken an Impact Assessment for the WA state economy, focused solely on **Simple Multipliers**. For the WA economic impacts, this entailed the following tasks:

1. Transaction tables were developed from National IO tables for the WA State economy. For the WA economy, the Regional Transaction Table was calculated by applying employment-based location quotients for the Region, based on the results of the 2016/2021 Census of Population and Housing. This has the effect of excluding spending on imports to the Region since they generate no local economic activity.
2. Economic Multipliers were then generated for WA economy across 119 industry categories defined by the ABS.
3. Construction and operational expenditure and production associated with the development were allocated across 119 industry categories.
4. Economic impacts associated with the Project are calculated.

4.1.1 Criticisms of Impact Assessments

Economic Impact Assessments based on IO-tables and Economic Multipliers have been criticised by Government and academia. Econisis recognises Economic Multipliers are based on limited

assumptions that can result in multipliers being a biased estimator of the benefits or costs of a Project.

Shortcomings and limitations of multipliers for economic impact analysis include:

- **Lack of supply**–side constraints: The most significant limitation of economic impact analysis using multipliers is the implicit assumption that the economy has no supply–side constraints. That is, it is assumed that extra output can be produced in one area without taking resources away from other activities, thus overstating economic impacts. The actual impact is likely to be dependent on the extent to which the economy is operating at or if it is near capacity.
- **Fixed prices**: Constraints on the availability of inputs, such as skilled labour, require prices to act as a rationing device. In assessments using multipliers, where factors of production are assumed to be limitless, this rationing response is assumed not to occur. Prices are assumed to be unaffected by policy and any crowding out effects are not captured.
- **Fixed ratios for intermediate inputs and production**: Economic impact analysis using multipliers implicitly assumes that there is a fixed input structure in each industry and fixed ratios for production. As such, impact analysis using multipliers can be seen to describe average effects, not marginal effects. For example, increased demand for a product is assumed to imply an equal increase in production for that product. In reality, however, it may be more efficient to increase imports or divert some exports to local consumption rather than increasing local production by the full amount.
- **No allowance for purchasers' marginal responses to change**: Economic impact analysis using multipliers assumes that households consume goods and services in exact proportions to their initial budget shares. For example, the household budget share of some goods might increase as household income increases. This equally applies to industrial consumption of intermediate inputs and factors of production.
- **Absence of budget constraints**: Assessments of economic impacts using multipliers that consider consumption induced effects (type two multipliers) implicitly assume that household and government consumption is not subject to budget constraints.
- **Not applicable for small regions**: Multipliers that have been calculated from the national IO table are not appropriate for use in economic impact analysis of Projects in small regions. For small regions multipliers tend to be smaller than national multipliers since the inter–industry linkages are normally relatively shallow. Inter–industry linkages tend to be shallow in small regions as they usually do not have the capacity to produce the wide range of goods used for inputs and consumption, instead importing a large proportion of these goods from other regions.

4.1.2 Adjustments to Improve EIA Reliability

Despite this, IO tables and Economic Multipliers remain popular due to their ease of use and communication of results. Econisis has undertaken a number of steps and made appropriate adjustments to the EIA methodology to address and mitigate these concerns.

Econisis has only used ***Simple Multipliers*** in the Assessment. This has the effect of discounting Household Consumption impacts from the assessment. By doing so, only those industries with a first round or supply chain connection are considered. This has the effect of making the results of the EIA conservative and suitable to inform decision making.

Additionally, Econisis has developed economic multipliers for the ***WA economy only***. This has the effect of internalising and limiting the extent of the economic impact outside of the State.

Econisis regards the use of Economic Multipliers as part of this Assessment as appropriate and reliable. The results of the assessment are conservative, defensible and suitable for informing decision making.

4.2 Summary of Results

4.2.1 Construction Phase

Econisis has allocated the construction costs for the housing development across the following sectors of the WA economy:

- Heavy and Civil Engineering Construction (10%)
- Residential Building Construction (80%)
- Professional, Scientific and Technical Services
- Public Administration and Regulatory Services

For the purpose of this assessment, Econisis has assumed a 2 year construction phase.

Based on these industries, Econisis estimates that project will generate a total of $30.3m in direct and indirect economic outputs, along with $5.1m in incomes and contribute $9.5m to the local economy, during the construction phase.

Table 9 Summary of Economic Impact, Construction Phase, Total Impact

Summary	Initial Impact	First Round Impact	Industry Support Impact	Total Impact (Simple Multipliers)
Output ($m)	$17.5	$8.5	$4.4	$30.3
Income ($m)	$2.4	$1.8	$0.9	$5.1
Employment (FTEs)	8.5	5.0	3.1	16.6
Gross Value Added ($m)	$4.6	$3.1	$1.8	$9.5

Table 10 Summary of Economic Impact, Construction Phase, Average Annual Impact[21]

Summary	Initial Impact	First Round Impact	Industry Support Impact	Total Impact (Simple Multipliers)
Output ($m)	$8.8	$4.3	$2.2	$15.2
Income ($m)	$1.2	$0.9	$0.5	$2.6
Employment (FTEs)	4.3	2.5	1.6	8.3
Gross Value Added ($m)	$2.3	$1.6	$0.9	$4.8

The project will support a total of 16.6 direct and indirect FTE construction jobs over the three years.

[21] Note the total impact of the project may be incurred in a single year given the adoption of a modular approach to dwelling design. However, a more conservative two year construction phase has been assumed in line with the CBA.

5 CONCLUSION

The 4WDL housing project would provide a host of benefits to the region, with the project estimated to have a net present value between $12m and $30.5m. The main benefit is the significantly increased economic contributions of key workers. Current housing shortages are preventing key workers from moving into the area, and increasing housing supply would allow for these workers to enter the 4WDL workforce. These new workers would produce significant value added to the local economy, estimated to be between $19.9m and $33m.

Another benefit is the household expenditure from these new workers and their households. Increased housing supply brings new families to the region who will spend at local businesses, stimulating the economy. This is estimated to generate between $4.1m and $6.9m. There are also social benefits to providing housing supply which include enhanced productivity, health savings, and reduced crime, among others. These benefits are estimated to be between $3m and $5m. Other benefits to the project include the initial construction supply chain benefits, a normalisation of the local housing market, and the residual asset value of the constructed dwellings.

This evaluation finds that the sum of these economic and social benefits outweighs the estimated cost of the project. This is reflected in the high NPV and BCR values. At the standard 7% discount rate, the NPV of the project is $19.5m and the BCR is 2.05. This means that for every dollar spent on the project, there are $2.05 of benefits produced. The present value of the benefits less the present value of the costs is $19.5m, representing a net positive value to the community and economy.

In addition, sensitivity tests conducted on the number of key workers per household and the maintenance costs of the project confirm that variation in these figures will not have a significant effect on benefits.

ECONISIS

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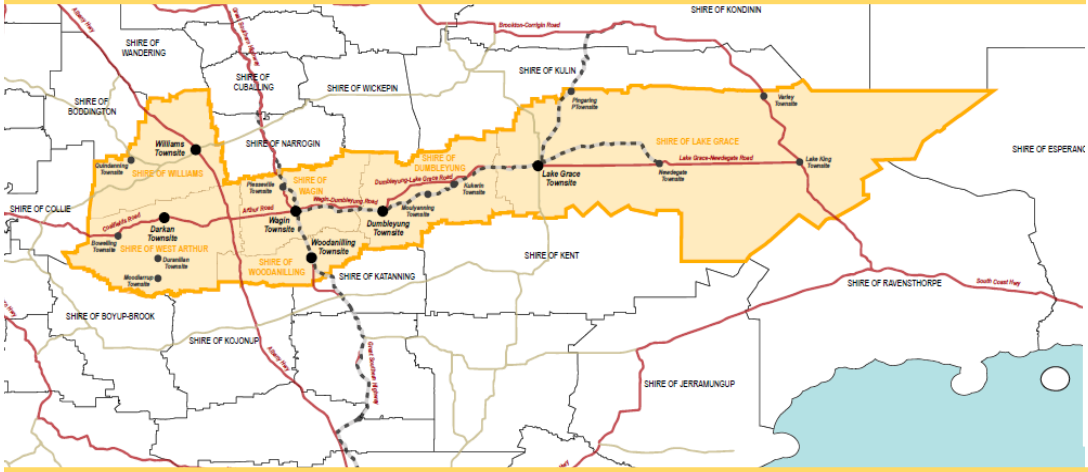
4WDL LOCAL HOUSING PLANS AND KEY WORKER HOUSING INVESTMENT CONCEPTS

Technical Appendix to 4WDL Preliminary Business Case

– Key Worker Housing 2023/2024



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			Final Draft	

Acknowledgement of Country

JE Planning Services is located on Gnaala Karla Booja. We acknowledge the Traditional Custodians of the lands on which we live and work throughout Western Australia and pay our respects to Elders past, present and emerging.

Table of Contents

Executive Summary of Facts and Findings

Vacant Land Assessment

There are approximately 291 Vacant 'Residential' zoned lots across the 4WDL townsites of Darkan, Dumbleyung, Lake Grace, Woodanilling, Wagin and Williams (2023). The assessment revealed the following trends relevant to the vacant sites:

- 44% have access to all available services in the town.
- 46% constrained for development due to partial servicing.
- 10% do not have access to any services.
- 51% owned by local (16%) or state government (35%).
- 49% privately owned.
- 25% of vacant land is State Government land currently considered for inclusion in the Noongar Land Estate and not available to be considered for development at this time.
- 26% owned by local and state governments are currently available for development.
- 7% owned by Local Government have access to all available services and are 'project ready'.

Development Potential of Vacant Residential zoned land

- 30% of vacant serviced zoned lots (all tenure) may have potential for grouped dwelling development. Yield on standard sites will be between 2 and 6 grouped dwellings.
- The current development potential across all available vacant and adequately serviced land is estimated to provide 123 dwellings (estimating potential to provide 42 grouped dwellings).
- The KWHA 2023 states an under provision of 70 (conservatively) and 91 (high) key worker dwellings exists (2023) and will need to provide an average between 15 and 25 key worker dwellings per annum over the coming decade.
- The capacity of serviced sites to provide grouped dwellings may cater for the current under provision and short term demand for key worker housing. The potential exists for increasing densities and improved servicing to facilitate short and medium-term demand in existing zoned areas.
- Development of larger residential zoned parcels on the periphery of townsites may yield around 500 residential lots/dwellings for the 4WDL, subject to planning processes, extension of services and improved townsite servicing capacity.

Development Investment Concepts

- The eight shortlisted sites provide a maximum of 33 key worker modular dwellings, conservatively addressing approximately 50% of the current key worker housing under provision.
- The total cost for the provision of the 33 key worker modular homes is estimated at $17,466,869, with an average estimated cost for servicing and constructing each dwelling being $525,971.
- The site and servicing costs range between $40K per dwelling for larger developments and upwards of $50K per dwelling as the development yield reduces.

- Headworks costs vary and are location specific.

Table 4: 4WDL Short Listed Sites for Housing Investment Concepts

Site	Address	Average Development Cost per dwelling	Number of Dwellings	Total Cost
1	8-10 (Lot 6 and 7) Harvey Street, Dumbleyung	$ 534,304	6	$ 3,205,825
2	25-29 (Lots 72,73 and 74) Hynes Court, Williams	$ 533,233	4	$ 2,132,933
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TOTAL		**$ 525,971**	**33**	**$ 17,466,869**

4WDL Townsite Capacity for Housing Development

Housing Plans for each town detail the extent of vacant land and associated services. The Housing Plans indicate that each town has the capacity for development, including the eight sites listed above and other zoned properties with current and potential access to services. While the commentary below outlines some current servicing constraints impacting townsite development, these limitations will not impede the development of the 33 key worker dwellings as referenced in Table 4 above, nor the development of other zoned and serviced sites identified in each town.

- Dumbleyung Townsite can cater for immediate and short-term key worker housing needs on vacant serviced residential zoned sites subject to the town's wastewater recycling system's planned upgrade (currently being upgraded).
- Williams Townsite can cater for limited development; however, can achieve up to R30 in some areas of town subject to connection to services. Addressing the demand for all immediate and short-term key worker housing needs may require upgrades to the wastewater system. Upgrade and extension of all services are needed to develop existing R12.5 zoned areas on the periphery of the townsite and support any proposals for increasing densities within the townsite to address medium and long-term key worker housing demand.
- The Shire of Wagin could cater to the immediate key worker housing needs on local government-owned land within the Wagin Townsite. The review reveals that Wagin has a mix of vacant residential properties in local government, state government, and private ownership available to support key worker housing needs in the immediate and short term, subject to extension of services in areas and addressing site constraints.
- The Shire of Lake Grace owns limited project ready land. The Shire has capacity to cater to the under provision and short term key worker housing needs on local government owned land, however these sites are subject to planning processes. Lake Grace townsite has limited vacant land available to support key worker housing needs in the medium and longer term.

- The Shire of West Arthur has a large brownfield site with the potential to cater to the immediate, short and medium-term key worker housing needs within the Darkan Townsites subject to servicing.
- The Shire of Woodanilling cannot provide the extent of immediate and short-term key worker housing required in a grouped dwelling format. The development of single dwellings with ancillary accommodation may be the best option to cater to key worker accommodation under the current densities and will rely on private landowners seeking to develop. Upcoding the R5 areas, characterised by largely cleared land and close to services, may increase the potential for providing key worker housing.

1 Introduction

Many Western Australia Wheatbelt towns are impacted by a failed housing construction and development market. The challenges of the housing market stem from various factors, such as limited infrastructure, inadequately serviced land, high construction costs, poor feasibility, absence of government intervention, funding, and investor confidence. In contrast, the Wheatbelt significantly contributes to the state's robust economy. It serves as a hub for mining, agriculture, and renewable energy, contributing over $7 billion to the States economy. The Wheatbelt's thriving economy surpassed the state's average growth rate, with an 18% increase in small businesses over the past five years. Investment and funding are required to seek to normalise housing and construction markets in these towns to support and foster the industries and accommodate key workers that contribute to a successful Western Australian economy and sustainable and prosperous regions.

It is essential to recognise the role of providing key worker housing in stimulating and driving new population growth within regional towns. The provision of adequate housing for key workers, not only attracts skilled workers but also their families, enhancing townsite communities. Despite historical and current population trends indicating low to negative growth, strategic investments in key worker housing have the potential to reverse these trends. This proactive approach meets immediate demands and fosters long-term growth and resilience.

Evaluating a town's capacity for the development of key worker housing illustrates the context necessary to attract and secure funding and investment. This process involves assessing land and servicing capabilities, addressing development constraints, and identifying opportunities. The collaborative efforts of the 4WDL Shires involved leveraging the insights from the *4WDL Key Worker Housing Analysis 2023*, alongside information from 'Local Housing Plans and 'Housing Investment Concepts,' as outlined in the report below to provide context. This collective information serves as the foundation for establishing a Preliminary Business Case with the primary objective to seek support for the servicing and development of key worker housing.

4WDL Key Worker Housing Needs Analysis 2023

The Wheatbelt Development Commission (WDC), in collaboration with the 4WDL Shires (Shires of Williams, Wagin, West Arthur, Woodanilling, Lake Grace and Dumbleyung), commissioned the preparation of the '4WDL Key Worker Housing Analysis 2023 (KWHA 2023) ' which analysed key worker housing needs and challenges and highlights opportunities to stimulate housing development and investment in the 4WDL Region. The KWHA 2023 presents quantitative and qualitative evidence (including stakeholder engagement) to confirm the extent of the housing shortage impacting the region's ability to attract and retain key workers.

The KWHA 2023 established the scale of demand for purpose-built and appropriate key worker housing. The analysis revealed a lack of accommodation to support lone, small, and aged households, with demand to be approximately 2.5 times greater than current building trends. The study resolved that the provision of housing stock suitable for key workers and ageing households and a cost-effective model of dwelling delivery is through the construction of infill grouped dwellings and ancillary accommodation (small housing product). The feasibility analysis of small housing products indicates an opportunity to value manage key worker accommodation construction costs.

The KWHA 2023 indicates that existing vacant residential land may have the capacity to accommodate the majority of key worker housing demand subject to further site analysis. The KWHA 2023 outlined the following next steps to address the delivery of regional housing solutions by Local government in the 4WDL and formed the basis of this study:

(A) Local Housing Plans and Preliminary Business Case

- **Local Housing Plans incorporating specific development sites** – 4WDL Councils should seek to identify specific sites for consideration of accommodating key worker development in the six key townsites. These sites should ideally be Council owned (or available to purchase), already serviced and be of a size and scale to accommodate one or more smaller dwellings.
- **Development of housing investment concepts** – small housing concepts for the shortlisted sites should then be developed. These should ensure construction costs are managed and dwelling numbers and product mix are as efficient as possible. The investment concepts to include consideration of the size and number of dwellings, the construction format, land/site servicing costs and estimated construction costs.
- **Prepare a Preliminary Business Case** - define the potential housing investment opportunities to include:
    - Cost Benefit Analysis of shortlisted housing investment options.
    - High level financial analysis examining the housing costs (and associated assumptions) and ongoing operational and financial cost impacts on the Councils (and private investors).
    - State Government preliminary business case to be established in support of proposed housing development program reflecting the need for grant funding intervention to support final development.

The KWHA 2023 recommended that pending State government consideration of the program funding request, the following final steps will enable the delivery of key worker housing:

- **Formal costings** – the approved concepts should be the subject of formal costings by a Quantity Surveyor.
- **EOI for development/delivery partners** – development of a brief Expression of Interest document for use in promoting the housing opportunity and seeking interest from potential development and delivery partners. No formal commitment is required at this stage though a preferred partner may be selected.
- **Finalise concept and costing with partner inputs** – there is also the option at this stage for concepts to be refined based on partner inputs.

- **Establishment of delivery model and approach** – establish the preferred approach for delivery. This may entail establishment of a special purpose vehicle or engagement with the CHO partner. At this time the relevant site(s) should be secured (if not already) for the construction process.
- **Construction of housing** – engagement of the construction partner to construct the houses.
- **Retention/Vesting of House Tenure** – vesting of the dwelling and site with the SPV or CHO or retention of the product by the relevant Local Government.

Purpose and Methodology

The '4WDL Local Housing Plans and Housing Investment Concepts' project provides a technical appendix for the preparation of the '4WDL Key Worker Housing Preliminary Business Case (Econosis,2024)' to address the KWHA 2023 Part (A) recommendations. The Preliminary Business Case will be used by the 4WDL working group in engagement with the State and/or Federal Government to seek funding for land development and construction for key worker housing.
The 4WDL Local Housing Plans and Housing Investment Concepts component of the project aims to:

- Verify the extent of vacant and available residential land as assessed under 4WDL Key Worker Housing Strategy 2023.
- Identify potential development sites and townsite development potential (dwelling yield).
- Identify near-term key worker housing sites, and associated development cost for investment and funding (Housing Investment Concepts).

The extent of vacant and available residential zoned land in the 4WDL towns of Wagin, Woodanilling, Williams, Darkan, Dumbleyung, and Lake Grace is verified to identify each town's capacity and suitability for developing key worker housing. The investigation provided a desktop analysis to 'ground truth' the opportunities and constraints for development. The desktop analysis references the following information:

- Imagery and Cadastre Data provided by Landgate 2023
- Water corporation data of Water and Sewer Services 2023
- Western Power infrastructure information provided by WDC from MNG mapping data
- Tenure maps (PDF form) provided by DPLH 2023
- Bushfire Prone Land from Map of Bush Fire Prone Areas (slip.wa.gov.au)
- Local Planning Scheme information provided by PlanWA (dplh.wa.gov.au)
- Landgate Map Viewer Landgate Map Viewer Plus

The methodology for the creation of the 'Housing Plans', included the following steps:

- Preparation of Aerial Base Plans with layers of infrastructure provision.
- Review of Residential Vacant Land outlining residential density, tenure, lot size, servicing (water, power and sewer), bushfire prone, land under consideration for inclusion in the Noongar Land Estate, and a high-level analysis of development potential.

- The site selection process provided a shortlist of sites for each town with the potential for near-term development of key worker housing. The shortlist of sites was selected by the 4WDL working group based on being considered as 'project ready' and meeting the following criteria:
  - Government tenure (Local or State)
  - Residential zoned land
  - Access to Sewer (except Darkan and Woodanilling)
  - Access to Power
  - Access to Water
  - Development potential for grouped dwellings or ancillary dwellings.
  - Constructed Road
  - Low constraint (eg. Bushfire/Vegetation/topography)
- Eight sites were selected from the shortlist to apply a 'Housing Investment Concept'.
- A Local Housing Plan for each townsite illustrating the above information.
- The vacant land analysis provides valuable insight into 'true' land availability and issues constraining development. The assessment provides valuable context for considering specific land parcels that are 'project ready' and highlights areas where servicing is inadequate to facilitate development.

The vacant land analysis presented as 'Local Housing Plans' may also provide context and justification for utilising other sites under local government reservations that may be sitting idle (per the recommendation for the 'lazy land audit' under *'Addressing Wheatbelt Development Constraints'* by Edge Planning, 2023). The context presents the justification for funding application requests to progress key worker housing, highlighting the immediacy of the need for support in servicing vacant residential land to construct key worker housing. The Local Housing Plan process facilitated the identification of the eight 'Housing Investment Concepts' sites.

Chadwick Consulting (Chadwick) analysed eight Housing Investment Concepts, each specific to the selected site. The Housing Investment Concepts describe a preliminary development concept including dwelling yield, size, typology, site servicing, and estimated construction costs. The cost estimates have been provided at a high level to inform further analysis and are not based on quantity surveyor input.

As stated previously, the housing demand analysis and the regional economic analysis revealed that the provision of housing stock suitable for key worker and ageing households, and a cost-effective model of dwelling delivery is through smaller, footprint-efficient standalone and semi-detached dwellings. Thus, the development concepts present construction cost estimates for small floor area prefabricated transportable, flat pack and modular dwellings. Chapter 3 details the Local Housing Plans for each townsite and describes the inclusions and exclusions in presenting the cost estimates for each shortlisted site 'Housing Investment Concept'.

2 4WDL Local Housing Assessment

Vacant Residential Land Assessment

The process of preparing the local housing plans and associated data provides contextual and ground-truthing information that underpins the preliminary business case. The analysis further quantifies the KWHA 2023 findings for key worker housing demand and land availability.

The KWHA 2023 included a chapter on 'Land Supply and Development Potential' which presented high-level figures to indicate how current housing stock is being used and identify areas of under-utilisation. The KWHA survey outcomes and Department of Planning Land and Heritage (DPLH) data presents an overview of vacant and suitably zoned land that may accommodate key worker housing (See Table 1: KWHA 2023- Vacant and Underutilised Land).

Table 1: DPLH Vacant Residential Lots Data (Extract from KWHA 2023)

Local Government Area	Vacant Residential Lots
Dumbleyung	24
Lake Grace	14
Wagin	87
West Arthur	28
Williams	48
Woodanilling	35
Grand Total	236

Source: KWHA 2023 LGA Survey

A detailed desktop review of the vacant land in the 4WDL focussed on the main townsite in each Local Government Area (LGA), and included the townsites of Darkan, Dumbleyung, Woodanilling, Williams, Lake Grace and Wagin. The cumulative result of the detailed analysis is in *Table 2: Estimated 4WDL Vacant Residential Land by Townsite* below. The data collected is based on desk top analysis and clarifies the status of the vacant land within each townsite.

Table 2: Estimated 4WDL Vacant Residential Zoned Land by Townsite

Townsite	Total Estimated Vacant Residential Zoned Lots	Vacant Lots full services	Vacant Lots Partial Services	Vacant Lots No services	Local Government Tenure	Total State Government Tenure	Vacant State Government owned land Considered for inclusion in Noongar Land Estate	Vacant lots in Bushfire Prone Area	No Lots addressing Short List criteria
Dumbleyung	43	8	32	0	19	12	9	31	4
Woodanilling	60	17	23	20	4	19	18	55	2
Darkan	26	24	2	0	3	7	2	7	2
Wagin	109	49	55	5	15	44	34	67	8
Lake Grace	18	7	11	0	3	12	8	9	1
Williams	35	22	10	3	3	12	1	18	2
Totals	291	127	133	28	47	106	72	187	19
Percentage	100%	44%	46%	10%	16%	36%	25%	64%	7%

Please note: The assessment was undertaken manually from aerial photographs. Sites that may appear vacant have been included. Details of current use or intended use (eg. sites utilised for gravel carparks, or recently cleared for development) were not investigated. Also, sites that indicated some use (i.e. sheds, or storage) were not included.

A review indicates a higher number of vacant lots than represented in the previous KWHA 2023 data. Table 2 estimates that there is a total of 291 Vacant Residential zoned lots within the 4WDL townsites in comparison to 236 vacant lots as set out in Table 1 (KWHA 2023) based on the Department of Planning, Land and Heritage (DPLH) data. The KWHA 2023 statistics were based on an aggregate summary of Landgate's vacant land data. Table 2 data is a review based on a manual desktop ground truthing exercise as described in the section 'Development Potential Matters' below. The assessment of vacant Residential zoned land based on the Table 2 findings, indicates the following trends across the 4WDL:

- 44% have access to all available services in the town. This figure includes Woodanilling and Darkan, which do not have access to sewer.
- 46% constrained for development due to partial servicing.
- 10% do not have access to any services.
- 51% owned by local (16%) or state government (35%).
- 49% privately owned.
- 25% of vacant land is State Government land currently considered for inclusion in the Noongar land Estate, not available to be considered for development at this time. Therefore 10% of the State government-owned land may have potential for development at this time.
- 26% owned by local and state government may be available for consideration for development at this time.
- 7% owned by Local Government is identified as 'project ready'. This includes local government-owned land with access to full servicing.
- 64% of sites are in 'Bushfire Prone Areas'.

The review reveals that 51% of vacant land holdings are owned by local or state governments. Additionally, a high percentage of state government land holdings are currently not eligible for development until the resolution of the Noongar Land Estate. This means that overall, 36% of vacant government land holdings currently have the ability to be developed, subject to adequate servicing. Only 49% of developable (currently vacant and appropriately zoned) land for housing in the region is owned by the private market. As such, direct government intervention (through the funding and delivery of housing) in the region is likely to have less negative "crowding out" impacts in the market compared to the Perth Metropolitan Region. This mitigates much of the perceived risks to the Government of intervening in the regional market.

Key Worker Housing - Development Potential Assessment

A high-level cursory assessment undertaken to gauge the approximate potential for developing housing within each town is presented in Table 3 below. Table 3 indicates potential dwelling yield of vacant serviced Residential zoned areas of the respective 4WDL towns based on current density. Consideration of potential for additional dwellings sites with existing development, was not included, and therefore the capacity of townsite for development may be greater than indicated in Table 3 below. Please note that bushfire and vegetation assessment, onsite servicing needs, and other site-specific matters may reduce yield, which is discussed in the section titled 'Development Potential Matters'.

Table 3: High-level Estimate of Residential Development Potential in 4WDL Townsites

Townsite	Serviced Residential zoned sites with potential for single houses	Approximate number of serviced Residential sites with development potential for grouped dwellings	Average number of grouped dwellings per site	Sites with potential for multiple lot subdivision/ dwelling yield subject to servicing (Subdivision sites)	Anticipated lot/dwelling yield on subdivision sites (subject to planning and servicing)
Woodanilling	5	8	2	0	0
Darkan	24	0	0	1	28
Wagin	30	19	3	8	150
Lake Grace	6	1	32	1	38
Williams	18	4	2	8	300
Dumbleyung	1	7	3	9	54
Total	**84**	**39**	**42**	**27**	**570**

A summary of the development potential assessment reveals the following outcomes:

- 30% of vacant serviced zoned lots (all tenure) may have potential for grouped dwelling development.
- Based on trends observed through the assessment process, the likely yield on standard sites (<1000/1200m^2) will be between two and four grouped dwellings. Larger or combined sites may allow six grouped dwellings or more.
- The current potential across all available vacant and adequately serviced land is estimated to provide 123 dwellings (including potential to provide 42 smaller grouped/modular dwellings).
- The fourth and fifth columns indicate residential-zoned parcels at the extent of larger townsites that may require structure planning for subdivision. Development of these sites will be subject to servicing and development and may yield around 500 residential lots/dwellings for the 4WDL subject to investment.

Short List Sites Response to Key Worker Housing Demand

The KWHA 2023 analysis across the six 4WDL LGAs estimates that key worker housing demand is 2.5 times greater than current building activity. The 4WDL KWHA 2023 estimated that dwelling demand for key workers between 2023- 2031 to be between 160 dwellings (conservative) to a 256 (high estimate), and the total additional dwellings (including aged person accommodation) ranges from 207 – 322 over the same period. On average, this requires between 20 and 30 additional dwellings per annum across the 4WDL region to cater to additional housing demand over the coming decade.

The KWHA 2023 identifies that the development of key worker housing currently needs to address the under provision of 70 (conservatively) and 91 (high) key worker dwellings. It is estimated that 26 dwellings are needed to accommodate gaps in the public sector workers' housing market. Each Local Government Area (LGA) has current, short- and longer-term housing needs identified in the 4WDL KWHA 2023 summarised below and further detailed in each Townsite's Local Housing Plan section:

- Shire of Dumbleyung requires an additional 28-33 key worker dwellings by 2031 with current under provision of 14 key worker dwellings.
- Lake Grace requires an additional 30-45 key worker dwellings by 2031 with current under provision of 12-15 key worker dwellings.
- West Arthur requires an additional 18-31 key worker dwellings by 2031 with a current under provision of 8 key worker dwellings.
- Wagin requires an additional 42-61 key worker dwellings by 2031 with current under provision of 16-22 key worker dwellings.
- Williams requires an additional 26-48 key worker dwellings by 2031 with a current under provision of 13-18 key worker dwellings.
- Woodanilling requires an additional 16-30 key worker dwellings by 2031 with a current under provision of 7-14 key worker dwellings.

Table 4 below lists eight identified project-ready shortlisted sites selected to provide key worker housing in the 4WDL region. The shortlisted sites provide a maximum of 33 key worker modular dwellings, conservatively addressing approximately 50% of the current key worker housing deficit. The site's location and maximum dwelling yield potential are listed in Table 4 below. Each site is detailed in the discussion by townsite in the relevant sections below.

Table 4: 4WDL Shortlisted Sites for Housing Investment Concepts

Site #	Local Government	Address	Dwelling yield
1	Shire of Dumbleyung	8-10 (Lot 6 and 7) Harvey Street, Dumbleyung	6
2	Shire of Williams	25- 29 (Lots 72,73 and 74) Hynes Court, Williams	4
3	Shire of Wagin	8-10 (Lots 19 and 18) Khedive Street, Wagin	3
4	Shire of Lake Grace	Portion of Lot 500 Wattle Road, Lake Grace	6
5	Shire of West Arthur	Portion of Lot 309 Burrowes (West) Street, Darkan	4
6	Shire of Woodanilling	13 (Lot 129) Cardigan Street, Woodanilling	1 + ancillary
7	Shire of Lake Grace	Portion of Lot 9002 Griffin Road, Lake Grace	2
8	Shire of Wagin	3 (Lot 19) Omdurman Street, Wagin	6
Total Dwellings			**33 dwellings**

Development Matters

The vacant residential land assessment is based on the development potential possible under the current density, and high level consideration of potential opportunities and constraints. Each town may also have additional development potential when considering other infill (eg. provision of additional dwelling(s) on a site with an existing dwelling) and potential review of underutilised reserved land. These matters should be explored in detail when addressing opportunities for townsite expansion and increasing development capacity under Local Planning Strategies and Local Planning Schemes. 'Addressing Wheatbelt Development Constraints' by Edge Planning, 2023, explores these concepts further.

The following matters are mentioned throughout this report. The matters discussed are manageable in the usual planning and development process and do not represent major constraints for the shortlisted sites. A brief description of each matter below has been included for information purposes and context.

Public Works Exemptions for local governments

A brief outline of the development approval or building licence approval process is set out for each of the eight sites in the 'Housing Investment Concept' Chapter. The statement also includes '(unless defined as a public works)'. This refers to an exemption for development approval afforded by section 6 of the *Planning and Development Act 2005* as it applies to public works by government agencies.

Local governments do not need to obtain approval under planning schemes when undertaking public works, subject to compliance with the local planning scheme, and orderly and proper planning. Public works are listed to include 'public housing and residences or hostels for teachers, students, medical staff'. This is further defined in Schedule 1 of the Public Works Act 1902 – Classes of Public Works as:

'2. (1) Public or community housing and community facilities and amenities, as defined in the Housing Act 1980 section 61(2), that are related or incidental to public or community housing. (2) Housing provided under the Government Employees' Housing Act 1964'

Key worker housing proposals that comply with the Scheme, and definitions set out in *the Planning and Development Act 2005* and *Public Works Act 1902* will not require formal development approval, however will be subject to building licence approvals and associated technical information (ie septic tanks proposals where applicable, BAL assessments etc).

Government Sewerage Policy 2019

The Government sewerage policy establishes the State of Western Australian Government's position on the provision of sewerage services in planning and developing land. It requires reticulated sewerage to be provided for the subdivision and development of land. Where reticulated sewerage cannot be provided, it adopts a best-practice approach to providing on-site sewage treatment and disposal.

Section 5.2.1 of the 'Government Sewerage Policy' stipulates a minimum lot size of 1000m^2 for unsewered areas. The Government Sewerage Policy mandates the preparation of a 'Site and Soil Evaluation' (SSE) (to assess suitability for onsite effluent disposal) for residential development in areas at a density greater than R10 without sewer services. Clause 5.2.1 may impact the development potential in the unsewered towns of Darkan and Woodanilling where conducting SSE's is encouraged to consider potential for increased densities.

***Bushfire Prone Land - State Planning Policy (SPP) 3.7 Planning in Bushfire Prone Areas*.**

Bushfire prone land is designated by the Fire and Emergency Services (FES) Commissioner as highlighted on the Map of Bush Fire Prone Areas. State Planning Policy 3.7 applies to all land designated as bushfire prone and designates how land use should address bushfire risk management in Western Australia. It acts as a mechanism for initiating further assessment in the planning and building processes. Where a site has been assessed as bushfire prone, the Local government or decision-making authority will apply policy provisions under section 6 of SPP 3.7. It is suggested to contract a Bushfire Planning Practitioner to provide advice and prepare the necessary accompanying information to planning and development application.

The high level desktop assessment of 4WDL vacant land, and subsequent review of the shortlisted sites, identifies sites located in a bushfire prone area. It is important to note that a bushfire designation doesn't prohibit development. A number of sites identified are located on the fringes of the towns and simply reflect vacant residential zoned land with some level of residual uncleared scrub or bush overgrowth.

An assessment of the bushfire attack level (BAL) and associated setbacks to development that may apply have not been detailed at this stage. Further investigation when progressing the development

design and proposal may influence the design, dwelling size and in some cases, the development potential of the sites. The shortlisted site requiring BAL assessments are noted in the report.

Threatened Ecological Communities and Riparian Vegetation

Several vacant residential lots throughout the 4WDL include vegetation. Sites with significant vegetation coverage, and those contiguous with adjacent vegetated lots were not considered for the short listed sites.

The clearing of native vegetation in Western Australia is principally regulated under the *Environmental Protection Act 1986* (EP Act) and its subsidiary legislation. In accordance with the *Environmental Protection Act 1986* (EP Act), a clearing permit is required to authorise any clearing of native vegetation unless an exemption applies. There are two types of exemptions outlined in Schedule 6 of the EP Act (Schedule 6 exemptions) that can be found under the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

Regulation 5 Item 1 of the exemptions allows the owner of a property to clear native vegetation for a building or structure, to the extent necessary for the building or structure, subject to obtaining necessary approvals prior to any clearing occurring. Additionally, the clearing can only be done to the extent necessary for the building or structure itself, and any additional clearing would require a clearing permit or referral unless it meets the requirements of a different exemption. Local governments can refer to the *Department of Water and Environmental Regulation* native vegetation helpline 6364 7098 if requiring information on clearing.

While not applicable to the shortlisted sites, high level assessment revealed the presence of Threatened Ecological Communities (TEC's) in some other locations within the townsites, which are also protected in environmental legislation as 'Environmentally Sensitive Areas' (ESA's).

The exemptions under the Clearing Regulations do not apply in environmentally sensitive areas (ESAs), or Threatened Ecological Communities (TEC's) on any property tenure. Environmentally sensitive areas (ESAs) are classes or areas of native vegetation where the exemptions for clearing vegetation under the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (Clearing Regulations)* do not apply. The locations of mapped ESAs may be viewed through clearing permit system (and Map Viewer) www.cps.der.wa.gov.au. Threatened ecological communities (TECs) are also protected under Western Australian legislation through *the Environmental Protection Act 1986* and may be considered within an ESA. The *Biodiversity Conservation Act 2016 (BC Act)* provides for the statutory listing of TECs by the Minister under the categories critically endangered, endangered or vulnerable. To confirm if the native vegetation is part of a TEC, please search the Protected Matters Search Tool: Interactive Map (awe.gov.au).

This advice is provided for future proposals, where development on sites with the presence of ESA's or TEC's should be referred to DWER, EPBC and/or seek an Environmental specialist's advice.

South West Native Title Settlement

The Noongar Land Estate (NLE), a part of the South West Native Title Settlement, and is land that is potentially eligible for inclusion into the Noongar Land Estate. The NLE will be held by the Noongar Boodja Trust (NBT) and is intended to provide significant opportunities for the Noongar community to achieve sustainable economic, social and cultural outcomes. Lands to be allocated include Unallocated Crown Land and some freehold land owned by WA Government agencies (State Government). The process commenced on 12 March 2021 with offers to the Noongar Boodja Trust.

No proposal can proceed on land under consideration for possible inclusion in the Noongar land estate until the allocation has been accepted. State Government owned land under consideration for inclusion in the Noongar Land Estate are included in the overall vacant land assessment and highlighted on the housing plans.

3 Local Housing Plans and Housing Investment Concepts

Local Housing Plans prepared for the Dumbleyung, Williams, Wagin, Lake Grace, Darkan and Woodanilling Townsites are based on the methodology outlined in the 'Purpose and Methodology' section. Each Local Housing Plan indicates the following:

- The extent of developed residential zoned land and vacant residential zoned land (October 2023).
- Power, Water and Sewer infrastructure fronts identified to illustrate available vacant serviced land.
- Vacant state government-owned land under consideration for possible inclusion in the Noongar Land Estate (and therefore, while vacant, is not 'available' for development at this time).
- The location of shortlisted site(s).

The individual' Local Housing Plans' are described by townsite in the relevant sections below. The descriptions include vacant land statistics and the town's capacity to address each Shire's key worker housing demand.

The shortlisted sites are highlighted on each townsite plan and detailed in Table 5 below. Table 5 summarises the maximum potential dwelling yield and provides high-level service and construction costs for each development site (Chadwick Consulting). The total cost for the provision of the 33 key worker modular homes is estimated to be approximately $17,500,000, with an average estimated cost for servicing and construction of each dwelling being $525,971. Site and servicing costs range between $40K per dwelling for larger developments and upwards of $50K per dwelling as the development yield reduces. Headworks costs are location specific.

Table 5: Shortlisted Sites to accommodate Housing Investment Concepts

Site	Address	Average Development Cost per dwelling	Number of Dwellings	Total Cost
1	8-10 (Lot 6 and 7) Harvey Street, Dumbleyung	$ 534,304	6	$ 3,205,825
2	25-29 (Lots 72,73 and 74) Hynes Court, Williams	$ 533,233	4	$ 2,132,933
3	8-10 (Lots 19 and 18) Khedive Street, Wagin	$ 532,512	3	$ 1,597,535
4	Portion of Lot 500 Wattle Road, Lake Grace	$ 533,162	6	$ 3,198,972
5	Portion of Lot 309 Burrowes (West) Street, Darkan	$ 542,762	4	$ 2,171,050
6	13 (Lot 129) Cardigan Street, Woodanilling	$ 474,292	2	$ 948,585
7	Portion of Lot 9002 Griffin Road, Lake Grace	$ 533,258	2	$ 1,066,515
8	3 (Lot 19) Omdurman Street Wagin	$ 524,242	6	$ 3,145,454
TOTAL		**$ 525,971**	**33**	**$ 17,466,869**

Please note the following descriptions, inclusions, and contingencies relative the high-level cost estimates:

- Dwelling construction costs include the pad and house, carport (1 carport for 2-bedroom, 2 carports for 3-bedroom) and driveways.
- Dwellings have been costed to a 'medium' specification, with ample kitchen cabinetry and fit out specifications, medium specification vinyl planking, air-conditioning to living spaces, one ample verandah, upgrades to the facade and external windows, and carports (not garages).
- Dwelling footprints are relatively small to enable modular/flat pack construction methods. See Table 6 below for examples of the dwelling sizes.
- Due to the predominantly level and clear terrain, provision has been made for minor earthworks only. A desktop study only informs this; further investigation is required to confirm earthwork costs. If additional earthwork costs are identified, then Shire works resourcing could be utilised to offset any increased cost.
- A standardised provision is included for onsite drainage. This requirement may differ between sites, but accounting for the relatively small footprints and hard surfaces of the modelled dwellings, it is unlikely these costs will dramatically impact project feasibility.
- Due to these costings' preliminary and indicative nature, a 20% construction contingency is applied.
- An escalation rate of 5.1% to Dec 2024 is included based on Quantity Surveyor advice. While there are signs of market stabilisation in the building sector, any increase in fuel price or disruption to international supply chains could severely impact construction costs and increase this rate, especially in the Wheatbelt. When applying for funding, a generous escalation rate should be applied based on conditions at the time of application and accounting for potential delays in receiving government approvals.
- A 20% Wheatbelt rating is applied to account for the transport costs of labour and materials. Potential cost savings may be achieved if a construction program involving multiple sites is established in collaboration with a builder utilising flat-pack or modular housing products. This method could enable mobilisation and transport costs to be distributed across multiple construction projects and allow for greater certainty of costs due to the ability to purchase a significant portion of the building material up-front.

Table 6: Estimated dwelling size.

Dwelling footprints (sqm)	**1x1x1**	**2x2x1**	**3x2x2**
Dwelling (enclosed area)	52	101	126
Verandah	12	12	18
Carport	23	23	34
Total (sqm)	**87**	**136**	**178**

Shire of Dumbleyung: Dumbleyung Townsite

Planning and Servicing Context

The Townsite of Dumbleyung is zoned Residential R10/30 under the *Shire of Dumbleyung Local Planning Scheme No.1*, providing a range of housing density options subject to wastewater and water capacity being available. The townsite of Dumbleyung has access to a reticulated sewerage system under the Shire's control and operation. The Shire confirms that the sewer system will have the capacity to service additional development in town subject to the purchase and installation of a wastewater recycling system confirmed for delivery in 2024.

The Water Corporation operates the water scheme in Dumbleyung and provides 188 water services/customers. Dumbleyung is part of the Great Southern Towns Water Supply Scheme (GSTWSS). Dumbleyung townsite receives water from the Wickepin Tank. East Dumbleyung's elevated tank provides the town's water storage. The water reticulation mains serving customers in the townsite area are 100mm in diameter. Mains of this size are typically adequate to provide normal services to low-density residential developments. Any significant development in the town will require further investigation to determine the impact on the scheme.

Dumbleyung Vacant Land Assessment and Key Worker Housing demand

The KWHA 2023 reports that the Shire of Dumbleyung population has seen a small increase in population (76 people) in the last ten years and is forecast (WA Tomorrow) to remain relatively stable with a slight decline of around 58 people over the next decade. The KWHA 2023 analysis also reports that key worker housing demand for the Shire of Dumbleyung ranges from 28 (low estimate) to 33 (high estimate) additional dwellings by 2031. The lack of available key worker housing is seen as a significant constraint to the growth of the town and surrounding areas.

The KWHA demand analysis indicates a current key worker housing supply shortage of 14-15 dwellings, with an additional 9-13 dwellings required in the next five years to address the short-term key worker accommodation needs in the Shire Dumbleyung.

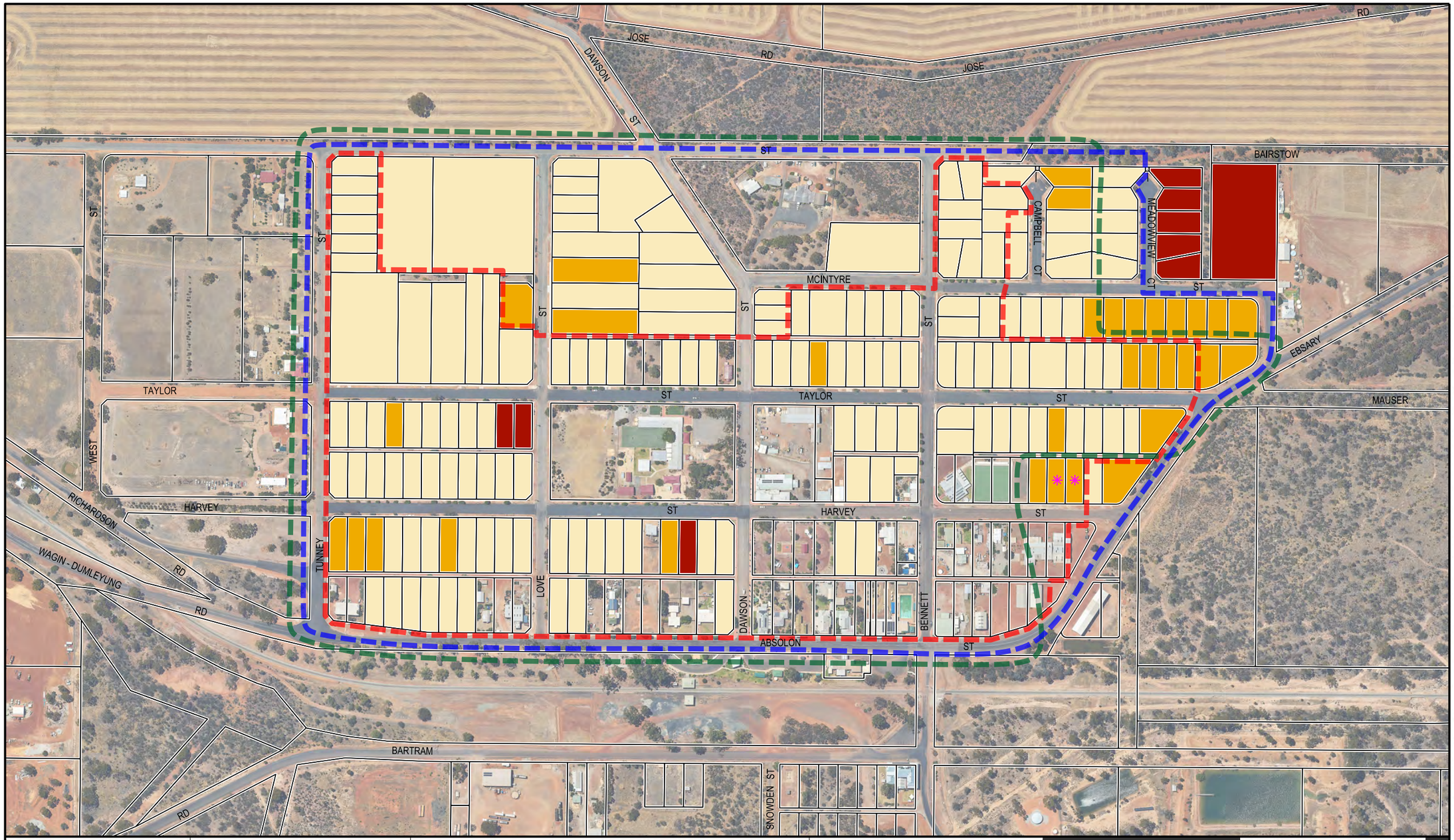
A vacant land assessment has been undertaken for the 4WDL in 2023, revealing the extent of suitably serviced, vacant 'Residential' zoned land available for developing key worker housing products. The findings of the vacant land assessment are in *Table 2: Estimated 4WDL Vacant Residential Zoned Land by Townsite,* and the capacity for the town to accommodate the demand is described in *Table 3: High-level Estimate of Residential Development Potential in 4WDL Townsites*. A Local Housing Plan titled "Dumbleyung Townsite Housing Potential' reveals the location of vacant 'Residential' zoned land.

Recommendation

The townsite of Dumbleyung needs to provide available land for up to 23-28 key worker dwellings to cater to immediate and short-term demand for key worker housing. In summary of the vacant land

assessment, the Dumbleyung townsite has approximately 43 vacant residential lots, of which eight have access to all services. Seven serviced sites have development potential for an average of four grouped dwellings. The Shire of Dumbleyung owns five serviced residential zoned lots, potentially yielding a maximum of 20 grouped dwellings.

Based on these figures, it is possible to cater for the Shire of Dumbleyung immediate and short-term key worker housing needs on serviced sites within the Dumbleyung Townsite. Achieving development potential will require support by the planned upgrade of the town's wastewater recycling system which will be delivered during 2024. In addition, nine partially and unserviced 'Residential sites' can potentially cater to long-term key worker housing demand. *The Shire of Dumbleyung Local Planning Scheme No.1* provides scope within its current zoning to achieve higher densities subject to increasing servicing capacity.



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0 40 80 120 160
metres

Base data supplied by Landgate (Aerial Photo - 1/1/2023)

LEIGHTON land development DRAFTING & visuals
bleighton@westnet.com.au
0408 820 001

LEGEND

- DEVELOPED RESIDENTIAL ZONED LAND
- SEWER INFRASTRUCTURE SERVICE FRONT (LAND WITH ACCESS TO SEWER)
- EXTENT OF POWER SERVICES (RESIDENTIAL ZONE)
- EXTENT OF WATER SERVICES (RESIDENTIAL ZONE)
- VACANT RESIDENTIAL LAND
- UNDER CONSIDERATION FOR POSSIBLE INCLUSION IN THE NOONGAR LAND ESTATE
- SHORT LISTED SITE

CLIENT	:	***SHIRE OF DUMBLEYUNG***
SCALE	:	*1:4,000 @ A3 / 1:2,000 @ A1*
DATE	:	*27 November 2023*
PLAN No	:	*DUM-1-001*
REVISION	:	*A*
PLANNER	:	*JE*
DRAWN	:	*BL*

DUMBLEYUNG TOWNSITE HOUSING POTENTIAL (VACANT LAND ASSESSMENT) OCTOBER 2023

SHIRE OF DUMBLEYUNG
JE PLANNING
Mobile 0408 901 192 Email: janine@jeps.com.au

FIGURE 1

Housing Investment Concept Site #1 (8-10 (Lot 6 and 7) Harvey Street, Dumbleyung)

The Shire of Dumbleyung preferred shortlisted site (the site) for consideration of a 4WDL Housing Investment Concept is local government-owned land located at 8-10 (Lot 6 and 7) Harvey Street, Dumbleyung (see Figure 1: Location Plan). The site is zoned Residential R10/30 under the Shire of Dumbleyung Local Planning Scheme (See Figure 2: Shire of Dumbleyung Local Planning Scheme No.1 Extract) with a combined lot area of 2024m^2 (See Table 7: Site#1 Details) and has the potential to yield six grouped dwellings.

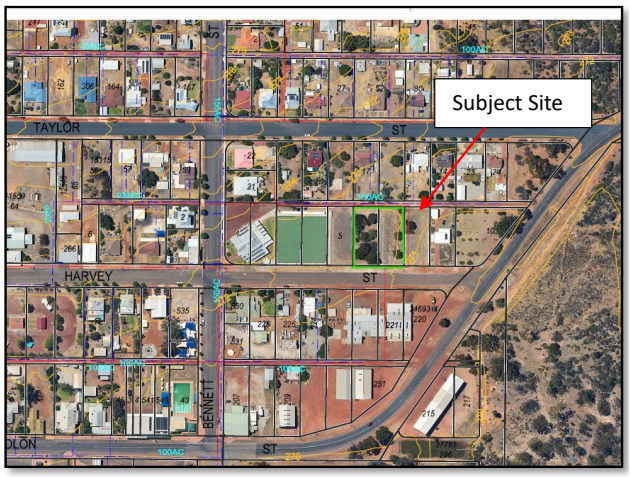


Figure 1: Location Plan

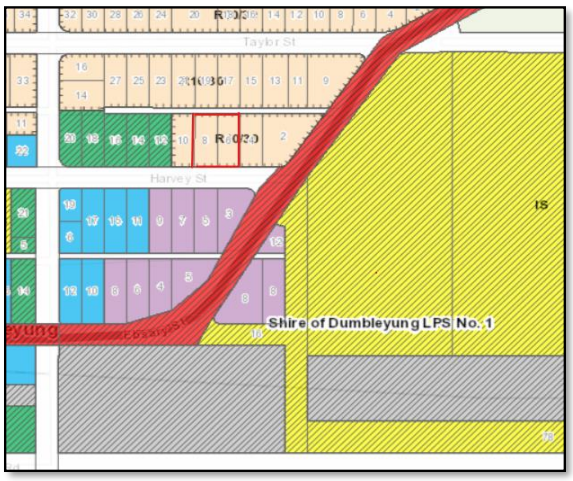


Figure 2: LPS Extract

Table 7: Site #1 Details

Street #	Lot #	Road	Tenure	Zoning	Area m²	Water	Sewer	Power	Planning Considerations (Opps and Cons)	Bushfire Prone	Dwelling Yield
10	6	Harvey Street	LG	R10/30	1012	✓	✓	low voltage power lines over the road	Party vegetated; clearing required. Western power extension and capacity to be addressed. Potential grouped site combined with Lot 6 and 7. Lot 8 is not available to form part of the grouped dwelling site.	Yes (south west corner)	3
8	7	Harvey Street	LG	R10/30	1012	✓	✓	low voltage power lines over the road	Cleared land, sparse vegetation. Western power capacity, extension and capacity to be addressed. Potential grouped dwellings site combined with Lot 6. Lot 8 is not available to form part of the grouped dwelling site.	Yes (south west corner of lot)	3

*LG= local government

The desktop site assessment reveals the following about Site #1:

- Sewer is available. The Shire confirms that it will have the capacity to service increased density in town, subject to the purchase and installation of a wastewater recycling system (which is the subject of a current project scoping and delivery plan confirmed for delivery during the 2024/2025 Financial year).
- Reticulated water supply runs along the northern boundary of the subject site within the adjacent right-of-way.
- The site is included in a Bushfire Prone Area.
- A small extension to the power line is required to service the development (~40 m).

The housing investment concept dwelling yield and costings are based on a preliminary desktop analysis. Confirmation of development will be subject to the preparation and approval of an amalgamation application to DPLH, a development application and site plan (unless defined as public works), and a building licence which will include the following considerations:

- Certificate of Title encumbrances (if applicable)
- Site Survey
- Vegetation clearing
- BAL assessment

The estimated servicing and development costs in Table 8 below relate to the development of six modular grouped dwellings comprising two three-bedroom, two-bathroom, and four two-bedroom/two-bathroom dwellings at Site #1.

Table 8: Estimated Servicing and Development Costs

8-10 (Lot 6 and 7) Harvey Street, Dumbleyung	**Costs**
Headworks	$ 68,985
Site works and servicing	$ 240,000
Construction	$ 1,836,000
Four 2-bed, 2-bath	*$291,000 per dwelling*
Two 3-bed, 2-bath	*$336,000 per dwelling*
Wheatbelt weighting	20%
Escalation to Dec 2024	5.1%
Construction contingency	20%
Design and professional fees contingency	5%
TOTAL	**$ 3,205,825**
Per dwelling	*$ 534,304*

Shire of Williams: Williams Townsite

Planning and Servicing Context

The desktop assessment reveals residential densities ranging from R2.5 and R5 up to R30 in the Townsite of Williams under the *Shire of Williams Local Planning Scheme No.2*. The most common density in town is R20, with large tracts of undeveloped R12.5 land on the periphery of the townsite. The developed R20 area within the townsite indicates a trend of battle-axe subdivisions occurring to maximise infill development.

The Water Corporation operates both water and wastewater schemes in Williams. Williams Townsite currently has around 206 properties connected to the sewerage network and 307 properties connected to the water network. While there may be some capacity to accept additional sewerage connections onto the existing network, Williams's primary and most significant limiting factor is the treated wastewater storage and reuse capacity of the Wastewater Treatment Plant (WWTP). In wet years/events and when the Shire's reuse Public Open Space irrigation system is not operating (in winter), the storage capacity at the WWTP is inadequate, leading to WWTP overflows. Any significant addition to service numbers (sewer connections and hence flow) in Williams will require the Water Corporation to undertake detailed engineering investigations and to construct additional Treated Waste Water (TWW) storage. These capital works are currently not funded.

Customers in Williams are supplied with drinking water off the Water Corporation's Great Southern Towns Water Supply Scheme (GSTWSS). The main source of water is Harris Dam near Collie. Bulk water is pumped via the GSTWSS trunk main that heads eastwards from Collie and runs through Williams and other towns. Several balancing storage tanks and additional pump stations are along the trunk main. Various branch mains supply towns to the north and south.

Most towns on the GSTWSS have water storage tanks to provide reserve storage and further chlorination at the tank outlet into the towns' water network. Williams does not have a local tank. Supply is directly via an offtake valve on the trunk main directly into the town's mains network.

The water reticulation mains serving customers in the townsite area are 100mm in diameter. Mains of this size are typically adequate to provide normal services to low-density residential developments.

Williams Vacant Land Assessment and Key Worker Housing demand

The KWHA 2023 reports that the Shire of Williams population has seen a small increase in population (107 people) in the last ten years and is forecasted (WA Tomorrow) to remain relatively stable, with a slight decline of around 83 people over the next decade. The KWHA 2023 analysis reports that key worker housing demand for the Shire of Williams ranges from 26 (low estimate) to 48 (high estimate) additional dwellings by 2031.

The KWHA demand analysis indicates a current key worker housing supply shortage of 13-18 dwellings, with an additional 5-17 dwellings required in the next five years to address the short-term

key worker accommodation needs in the Shire Williams. On this basis, it is noted that the townsite of Williams needs to provide between 18-35 key worker dwellings to cater for immediate and short-term demand.

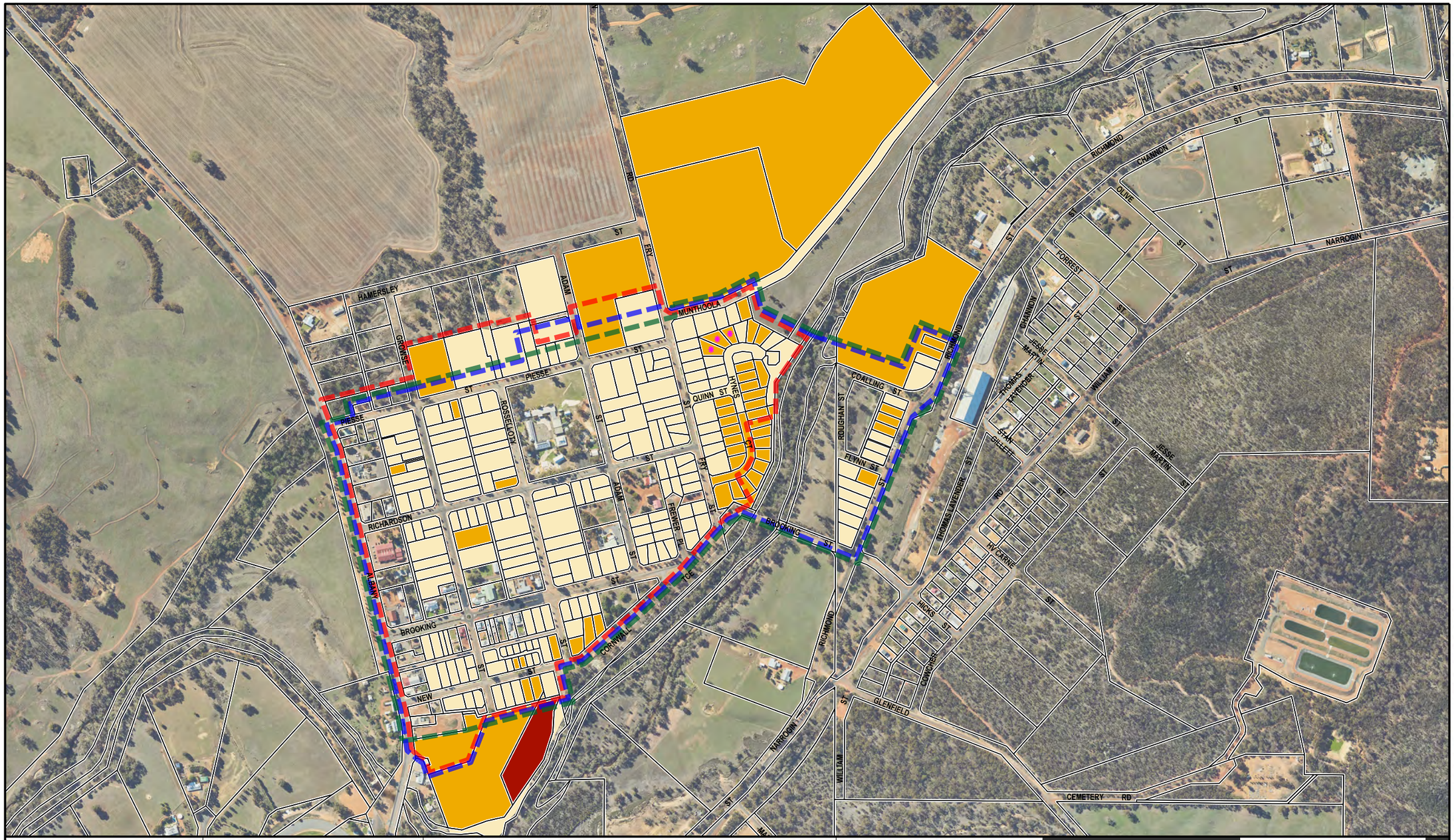
A vacant land assessment has been undertaken for the 4WDL in 2023, revealing the extent of suitably serviced, vacant 'Residential' zoned land available for developing key worker housing products. The findings of the vacant land assessment are in *Table 2: Estimated 4WDL Vacant Residential Zoned Land by Townsite,* and the capacity for the town to accommodate the demand is described in *Table 3: High-level Estimate of Residential Development Potential in 4WDL Townsites*. A Local Housing Plan titled "Williams Townsite Housing Potential' reveals the location of vacant 'Residential' zoned land.

In summary of this information, the Williams townsite has approximately 35 vacant residential lots, of which 22 have access to all services. One vacant site is considered for inclusion in the Noongar Land Estate. Therefore, 21 serviced sites have development potential for an average of two grouped dwellings. The Shire of Williams owns three serviced residential lots, potentially yielding a maximum of six grouped dwellings. These figures reveal that the Williams townsite does not currently have the capacity to cater to the Shire's immediate and short-term key worker housing needs.

Recommendation

It is recommended that the Shire of Williams earmark sites to accommodate 18 key worker dwellings immediately to address the under provision of key worker housing. Additional sites to accommodate up to 17 key worker dwellings in the short term (2026) will also need to be identified. The following suggestions may support the release of land and increase the capacity for the provision of key worker housing in the Williams townsite:

- Seek access to state government-owned land (11 sites) that may yield approximately 22 grouped dwellings to address the immediate key worker housing need.
- There are approximately 18 vacant sites in town which may accommodate single houses. The possibility of recoding areas in town should be investigated to increase the density and development potential for grouped dwellings.
- While there are limited existing residential sites in the townsite of Williams for the development of grouped dwellings, larger residential zoned sites on the periphery provide an opportunity to address key worker housing needs and have the capacity to service the town's housing needs in the long term. These sites will require significant extension of services and planning processes (structure planning and subdivision) to achieve additional land release.
- Significant upgrades to the townsite wastewater system will be necessary to cater for the extension of servicing to support increased development in existing R12.5 zoned areas on the periphery of the townsite and support any proposals for increasing densities within the town.



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0 75 150 225 300
metres

Base data supplied by Landgate (Aerial Photo - 21/4/2021)

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bleighton@westnet.com.au
0408 820 001

LEGEND

- DEVELOPED RESIDENTIAL ZONED LAND
- SEWER INFRASTRUCTURE SERVICE FRONT (LAND WITH ACCESS TO SEWER)
- EXTENT OF POWER SERVICES (RESIDENTIAL ZONE)
- EXTENT OF WATER SERVICES (RESIDENTIAL ZONE)
- VACANT RESIDENTIAL LAND
- UNDER CONSIDERATION FOR POSSIBLE INCLUSION IN THE NOONGAR LAND ESTATE
- SHORT LISTED SITE

CLIENT	:	***SHIRE OF WILLIAMS***
SCALE	:	*1:7,500 @ A3 / 1:3,750@ A1*
DATE	:	*28 November 2023*
PLAN No	:	*WIL-1-001*
REVISION	:	*A*
PLANNER	:	*JE*
DRAWN	:	*BL*

WILLIAMS TOWNSITE HOUSING POTENTIAL (VACANT LAND ASSESSMENT) OCTOBER 2023

GATEWAY TO THE GREAT SOUTHERN WILLIAMS

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FIGURE 1

Housing Investment Concept Site #2 (5- 29 (Lots 72,73 and 74) Hynes Court, Williams)

The Shire of Williams preferred shortlisted site (the site) for consideration of a 4WDL Housing Investment concept is state government owned land located 25- 29 (Lots 72,73 and 74) Hynes Court, Williams (see Figure 3: Location Plan). The site is zoned Residential R12.5 under the Shire of Williams Local Planning Scheme No.2 (See Figure 4: Shire of Williams Local Planning Scheme (LPS) Extract) with a combined lot area of 3447m^2 (See Table 9: Site#2 Details) and has the potential to yield four grouped dwellings.

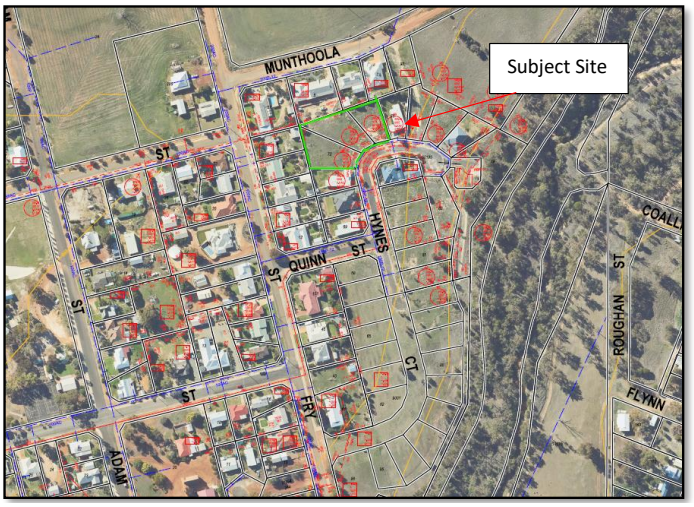


Figure 3: Location Plan

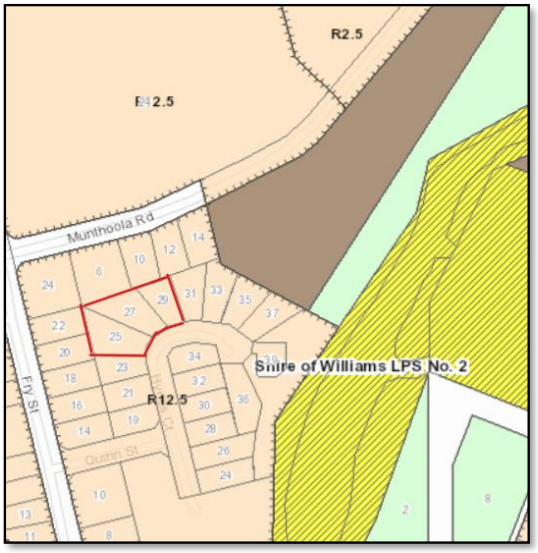


Figure 4: LPS Extract

Table 9: Site #2 Details

Street #	Lot #	Road Name	Tenure	Zoning	Area m²	Water	Sewer	Power	Planning Considerations	Bushfire Prone	Dwelling Yield
25	72	Hynes Court	SG	R12.5	1303	✓	✓	✓	New Subdivision. Requires amalgamation with adjacent lots to achieve greater yield. Advantage that land is prepared and serviced.	no	1
27	73	Hynes Court	SG	R12.5	1275	✓	✓	✓		no	1
29	74	Hynes Court	SG	R12.5	869	✓	✓	✓		yes	1

*SG= state government

The desktop site assessment reveals the following about Site #2:

- Sewer is available, and the development can be serviced. Water Corporation advises that the town's wastewater system is near capacity. However, the subdivision is approved and assumes capacity exists for the proposal.
- Water and Power services are available.
- Limited headworks are required.

The housing investment concept costings are based on preliminary desktop analysis. Confirmation of development will be subject to the preparation and approval of an amalgamation of the three lots via application to DPLH, a development application and site plan (unless defined as public works), and a building licence which will need to include the following considerations:

- Certificate of Title encumbrances (if applicable)
- Site Survey
- BAL assessment for Lot 74 Hynes Road. Although part of this site sits in a bushfire-prone area, it is assumed that this could be mitigated without major expense due to the large lot size and low expected yield.

The estimated servicing and development costs provided in Table 10 below relate to the development of four modular grouped dwellings comprising of one, two-bedroom two-bathroom dwelling, and two, two-bedroom/two-bathroom dwellings at Site #2.

Table 10: Estimated Servicing and Development Costs

25-29 (Lots 72,73 and 74) Hynes Court, Williams	**Costs**
Headworks	$ 60,003
Site works and servicing	$ 160,000
Construction	$ 1,209,000
Three 2-bed, 2-bath	*$291,000 per dwelling*
One 3-bed, 2-bath	*$336,000 per dwelling*
Wheatbelt weighting	20%
Escalation to Dec 2024	5.1%
Construction contingency	20%
Design and professional fees contingency	5%
TOTAL	**$ 2,132,933**
Per dwelling	*$ 533,233*

Shire of Wagin: Wagin Townsite

Planning and Servicing Context

The desktop site assessment revealed that Wagin Townsite is characterised by Residential R17.5 density with pockets of R30 in the established area of town under the *Shire of Wagin Local Planning Scheme No.2*. The range of densities has resulted in various lot sizes and forms of development through town. Large undeveloped landholdings zoned Residential with an allocated density of R17.5 are located on the northeast of the townsite.

The Water Corporation operates both water and wastewater schemes in Wagin. Wagin townsite currently has around 600 properties connected to the sewerage network, and around 880 properties connected to the water network. While there may be some capacity to accept additional sewerage connections onto the existing network, the primary and most significant limiting factor in Wagin is the capacity of the WWTP, more specifically disposal of excess treated wastewater back into the environment. The treatment plant operates within but is close to its maximum hydraulic capacity.

Any significant addition to service numbers (sewer connections and hence flow) in Wagin may require the Water Corporation to undertake further engineering investigations and capital expenditure to resolve the WWTP capacity constraints.

Customers in Wagin are supplied with drinking water from the Water Corporation's Great Southern Towns Water Supply Scheme (GSTWSS). Wagin supplies bulk water via the 'NK' (Narrogin to Katanning) farmlands extension distribution main. Wagin is served from the Wardelocking Reservoir, about 5km northwest of the townsite. The water reticulation mains serving customers in the townsite area are 100mm in diameter. Mains of this size are typically adequate to provide normal services to low-density residential developments.

Wagin Vacant Land Assessment and Key Worker Housing demand

The KWHA 2023 reports that the Shire of Wagin's population has seen a small decline in population (85 people) in the last ten years and is forecast (WA Tomorrow) to remain relatively stable with a slight decline of around 83 people over the next decade. The KWHA 2023 analysis reports that key worker housing demand for the Shire of Wagin ranges from 42 (low estimate) to 61 (high estimate) additional dwellings by 2031.

The KWHA demand analysis indicates a current key worker housing supply shortage of 16-22 dwellings, with an additional 16-29 dwellings required to address the short-term (2026) key worker accommodation needs in the Shire Wagin. On this basis, it is noted that the townsite of Wagin needs to provide between 32 and 51 key worker dwellings to cater to immediate and short-term demand.

A vacant land assessment has been undertaken for the 4WDL in 2023, revealing the extent of suitably serviced, vacant 'Residential' zoned land available for developing key worker housing products. The findings of the vacant land assessment are in *Table 2: Estimated 4WDL Vacant Residential Zoned Land by Townsite,* and the capacity for the town to accommodate the demand is described in *Table 3: High-level Estimate of Residential Development Potential in 4WDL Townsites*. A

Local Housing Plan titled 'Wagin Townsite Housing Potential' reveals the location of vacant 'Residential' zoned land is included below.

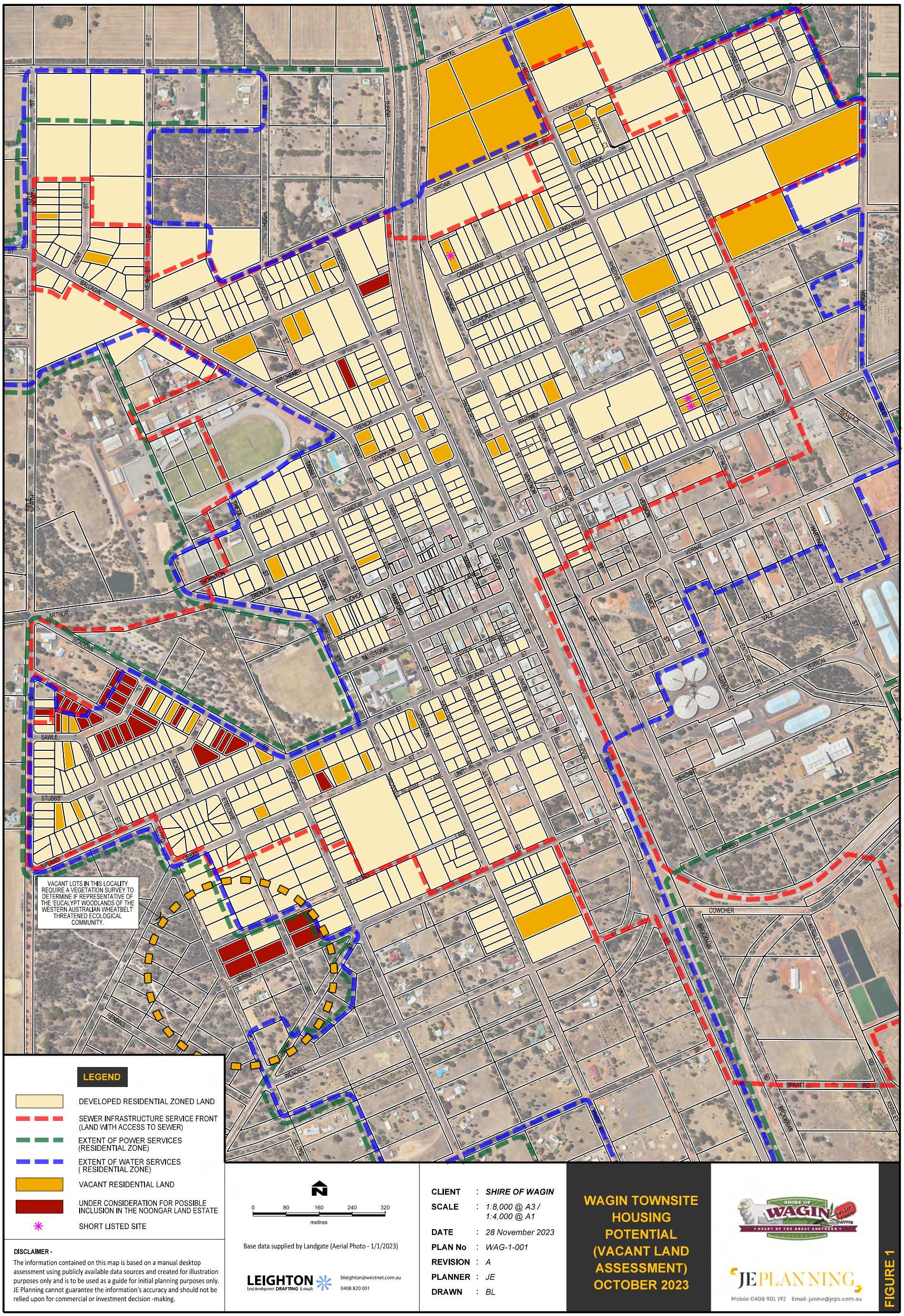
In summary of this information, the Wagin townsite has approximately 109 vacant residential lots, of which 49 lots have access to all services. Approximately 34 vacant sites are considered for inclusion in the Noongar Land Estate, and 22 of these sites are located within serviced areas of town reducing the currently available serviced land to 27 lots. The Shire of Wagin owns 15 residential lots across various densities in town, and further investigation is required to understand cumulative dwelling potential (subject to servicing), which will range from single dwelling potential to three or more grouped dwellings.

These figures indicate that the Shire of Wagin could potentially cater to the immediate key worker housing needs (22 dwellings) on local government-owned land within the Wagin Townsite. The review reveals that Wagin has a mix of vacant residential land in local government, state government and private ownership available to support key worker housing needs in the immediate and short term subject to extension of services and addressing site constraints. Based on the extent of available land, and measurable demand for key worker housing the Wagin townsite was selected to provide two short listed sites for preparation of Housing Investment Concept.

Recommendation

It is recommended that the Shire of Wagin earmark sites to accommodate 22 key worker dwellings immediately to address the under provision of key worker housing. Additional sites to accommodate up to 29 key worker dwellings in the short term (2026) will also need to be identified. The following suggestions may support the release of land and increase the capacity for the provision of key worker housing in the Wagin townsite:

- Accessing State government-owned land may yield additional grouped dwellings to address short-term key worker housing demand, however many sites are currently under consideration for the Noongar land estate. The state government owned land located southeast of town is constrained by the presence of vegetation which may require assessment to determine if land is representative of the ‘Threatened Ecological Community of Eucalypt Woodlands of the Western Australian Wheatbelt’ and are also nominated in a bushfire prone area.
- Investigate the possibility of recoding areas in town from R17.5 to R30 to increase development potential.
- Larger residential zoned sites coded R17.5 located in the northeast of town provide an opportunity to address key worker housing needs and have capacity to service the towns housing needs in the long term. The availability of these sites requires servicing and planning processes of structure planning and subdivision. If servicing can be addressed, the Shire may potentially look to increasing densities in these areas.
- Upgrades to the wastewater system will be necessary to cater for the extension of servicing to support increased development in existing R17.5 and R30 zoned areas town, and support proposals for increasing densities.


VACANT LOTS IN THIS LOCALITY REQUIRE A VEGETATION SURVEY TO DETERMINE IF REPRESENTATIVE OF THE 'EUCALYPT WOODLANDS OF THE WESTERN AUSTRALIAN WHEATBELT' THREATENED ECOLOGICAL COMMUNITY.
LEGEND
DEVELOPED RESIDENTIAL ZONED LAND
SEWER INFRASTRUCTURE SERVICE FRONT (LAND WITH ACCESS TO SEWER)
EXTENT OF POWER SERVICES (RESIDENTIAL ZONE)
EXTENT OF WATER SERVICES (RESIDENTIAL ZONE)
VACANT RESIDENTIAL LAND
UNDER CONSIDERATION FOR POSSIBLE INCLUSION IN THE NOONGAR LAND ESTATE
SHORT LISTED SITE
DISCLAIMER -
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0 80 160 240 320
metres
Base data supplied by Landgate (Aerial Photo - 1/1/2023)
LEIGHTON land development DRAFTING & visuals
bleighton@westnet.com.au
0408 820 001
CLIENT : SHIRE OF WAGIN
SCALE : 1:8,000 @ A3 / 1:4,000 @ A1
DATE : 28 November 2023
PLAN No : WAG-1-001
REVISION : A
PLANNER : JE
DRAWN : BL
WAGIN TOWNSITE HOUSING POTENTIAL (VACANT LAND ASSESSMENT) OCTOBER 2023
SHIRE OF WAGIN HEART OF THE GREAT SOUTHERN
JE PLANNING
Mobile 0408 901 192 Email: janine@jeps.com.au
FIGURE 1

Housing Investment Concept Site #3 (10 (Lots 19 and 18) Khedive Street, Wagin)

The Shire of Wagin first preferred shortlisted site (the site) for consideration of a 4WDL Housing Investment Concept is state government-owned land located at 10 (Lots 19 and 18) Khedive Street, Wagin (see Figure 5: Location Plan). The site is zoned Residential R17.5 under the Shire of Wagin Local Planning Scheme No.2 (See Figure 6: Shire of Wagin Local Planning Scheme (LPS) Extract) with a combined lot area of 2024m^2 (See Table 11: Site#3 Details) and has the potential to yield three grouped dwellings.

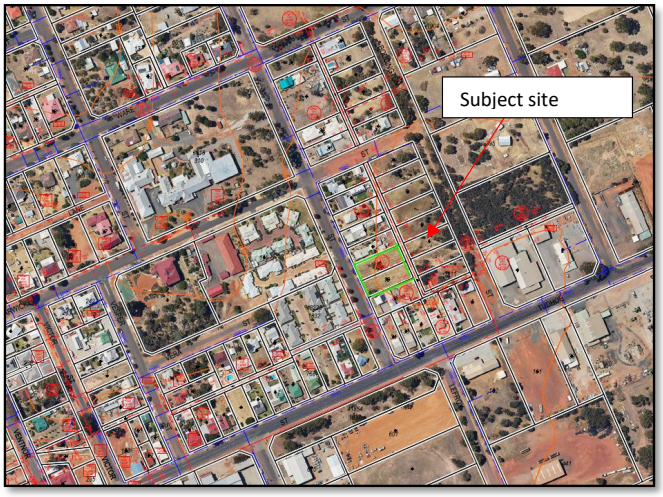


Figure 5: Location Plan

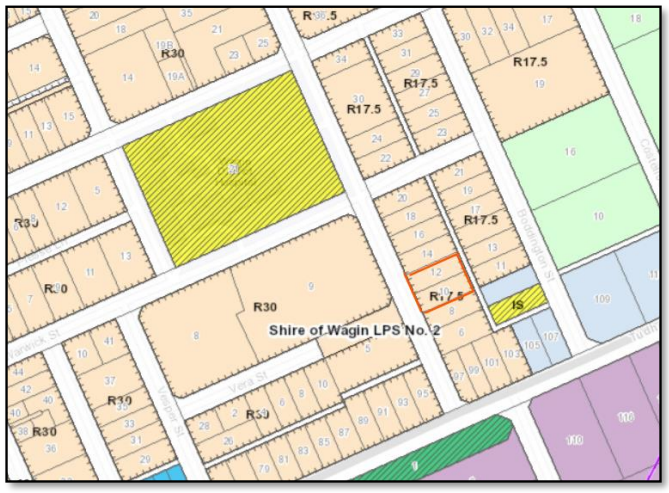


Figure 6: LPS Extract

Table 11: Site#3 Details

Street #	Lot #	Road Name	Tenure	Zoning	Area m²	Water	Sewer	Power	Planning Considerations	Bushfire Prone	Dwelling Yield
10	Lot 18 Plan 2807	Khedive Street	LG	R17.5	1012	✓	✓	✓	Cleared land. Combined with adjacent Lot 19 Khedive, provides the opportunity for 3 grouped dwelling site. Potential constraints with vegetation	yes	1
8	Lot 19 Plan 2807	Khedive Street	LG	R17.5	1012	✓	✓	✓	Low side of road, requires some fill. Fully serviced. Potential for 3 grouped dwellings if amalgamated with Lot 18.	yes	1

**LG=local government

The desktop site assessment reveals the following about Site #3:

- Sewer, Water and Power services are available.
- Vegetation clearing will be required.
- Lot 19 may require earthworks to provide fill.
- Identified as bushfire prone which affects projected development costs.
- Limited headworks required.

The housing investment concept costings are based on preliminary desktop analysis. Confirmation of development will be subject to the preparation and approval of an amalgamation application to DPLH, a development application and site plan (unless defined as public works), and building licences which will need to include the following considerations:

- Certificate of Title encumbrances (if applicable)
- Site Survey
- BAL assessment

The estimated servicing and development costs provided in Table 12 below relate to the development of three modular grouped dwellings comprising two-bedroom/two-bathroom dwellings at Site #3.

Table 12: Estimated Servicing and Development Costs

8-10 (Lots 19 and 18) Khedive Street, Wagin	**Costs**
Headworks	$ 34,002
Site works and servicing	$ 140,000
Construction	$ 873,000
Three 2-bed, 2-bath	*$291,000 per dwelling*
Wheatbelt weighting	20%
Escalation to Dec 2024	5.1%
Construction contingency	20%
Design and professional fees contingency	5%
TOTAL	**$ 1,597,535**
Per dwelling	*$ 532,512*

Housing Investment Concept Site #8 (3 (Lot 19) Omdurman Street, Wagin)

The Shire of Wagin second preferred shortlisted site (the site) for consideration of a 4WDL Housing Investment Concept local government-owned land located at 3 (Lot 19) Omdurman Street, Wagin (see Figure 7: Location Plan). The site is zoned Residential R30 under the Shire of Wagin Local Planning Scheme No.2 (See Figure 7: Shire of Wagin Local Planning Scheme No.2 (LPS) Extract) with a lot area of 1968m^2 (See Table 13: Site #8 Details) and has the potential to yield six grouped dwellings.

Figure 7: Location Plan

Figure 8: LPS Extract

Table 13: Site #8 Details

Street #	Lot #	Road Name	Tenure	Zoning	Area m²	Water	Sewer	Power	Planning Considerations	Bushfire Prone	Dwelling Yield
3	19	Omdurman Street	Local Government	R30	1968	✓	✓	✓	The site is partially cleared. The northern boundary is adjacent to an unconstructed road. The site has access to all services.	yes	6

The desktop site assessment reveals the following about Site #8 :

- Sewer, Water and Power services are available.
- Vegetation clearing will be required.
- Identified as bushfire prone.

The housing investment concept costings are based on preliminary desktop analysis. Confirmation of development will be subject to the preparation and approval of a development application and site plan (unless defined as public works), and a building licence which will need to include the following considerations:

- Certificate of Title encumbrances (if applicable)
- Site Survey
- Vegetation clearing
- BAL assessment

The estimated servicing and development costs provided in Table 14 below relate to developing six modular grouped dwellings comprising six two-bedroom/two-bathroom dwellings at Site #8. All services are readily available, reducing the overall cost. To account for setbacks due to the skinny lot configuration and being bushfire prone, six 2-bedroom dwellings have been suggested rather than anything larger. This is a slight cost increase due to being in a bushfire-prone area and the need for long communal driveway and internal servicing.

Table 14: Estimated Servicing and Development Costs

3 (Lot 19) Omdurman, Wagin		**Costs**
Headworks	$	41,405
Site works and servicing	$	270,000
Construction	$	1,746,000
Six 2-bed, 2-bath		*$291,000 per dwelling*
Wheatbelt weighting		20%
Escalation to Dec 2024		5%
Construction contingency		20%
Design and professional fees contingency		5%
TOTAL	**$**	**3,145,454**
Per dwelling	*$*	*524,242*

Shire of Lake Grace: Lake Grace Townsite

Planning and Servicing Context

The townsite of Lake Grace is predominantly characterised by R20 density with a small pocket of R30 density under the *Shire of Lake Grace Local Planning Scheme No 4*. The townsite is largely developed, with an R20 land release currently (2023/2024) occurring to the east of town. An existing site zoned 'Special Use' is vacant (2023) and being considered by the Shire of Lake Grace for rezoning to 'Residential R30' to facilitate development of key worker housing.

The Shire of Lake Grace own and manage the wastewater scheme for the townsite. The wastewater treatment plant (WWTP) is made up of 4 wet wells with two submersible pumps. Currently the main pump station runs for 5.85 hours a day (across the two pumps) which indicates that there is spare capacity for additional development. The Shire of Lake Grace WWTP processes around 42 ML per year. At times when the treatment ponds are at risk of overflowing, the Shire operate a wastewater reuse scheme for open space irrigation.

The Water Corporation operates the water network in Lake Grace. Lake Grace is supplied with water off the Water Corporation's Great Southern Towns Water Supply Scheme (GSTWSS) via the 'WS' extension farmlands distribution main. Lake Grace townsite currently has around 377 properties connected to the water network. Lake Grace has a storage tanks supplying a high pressure area (under gravity) and a separate tank for a low pressure area (service via a booster pump station). Any significant development in the town will require further investigation to determine the impact on the scheme. The water reticulation mains that serve customers in the townsite area are predominantly 100mm diameter. Mains of this size are typically adequate to provide normal services to low density residential developments.

Lake Grace Vacant Land Assessment and Key Worker Housing demand

The KWHA 2023 reports that the Shire of Lake Grace population has seen a small decline in population (85 people) in the last ten years and is forecast (WA Tomorrow) to remain relatively stable with a slight decline of around 134 people over the next decade. Conversely, the townsite of Lake Grace has seen a slight increase in population. The KWHA 2023 analysis reports that key worker housing demand for the Shire of Lake Grace ranges from 30 (low estimate) to 45 (high estimate) additional dwellings by 2031.

The KWHA demand analysis indicates a current key worker housing supply shortage of between 12-15 dwellings, with an additional 18-23 dwellings required to address the short-term key worker accommodation (2026) needs in the Shire Lake Grace. On this basis, it is noted that the townsite of Lake Grace needs to provide between 30-38 key worker dwellings to cater for immediate and short-term demand.

A vacant land assessment has been undertaken for the 4WDL in 2023, revealing the extent of suitably serviced, vacant 'Residential' zoned land available for developing key worker housing products. The findings of the vacant land assessment are in *Table 2: Estimated 4WDL Vacant*

Residential Zoned Land by Townsite, and the capacity for the town to accommodate the demand is described in *Table 3: High-level Estimate of Residential Development Potential in 4WDL Townsites*. A Local Housing Plan titled 'Lake Grace Townsite Housing Potential' reveals the location of vacant 'Residential' zoned land is included below.

In summary of this information, the Lake Grace townsite has approximately 15 vacant residential lots, of which 7 lots have access to all services. Approximately 8 vacant sites are considered for inclusion in the Noongar Land Estate, meaning the townsite has access to 7 vacant residential lots. The Shire of Lake Grace owns 2 vacant serviced residential lots in town, with the potential for single dwellings. The Shire owns a large undeveloped Residential zoned portion of land with a density of R20 located on the east side of town at Lot 9002 Griffin Street, Lake Grace. Lot 9002 Griffin Street has an approved structure plan to accommodate 47 lots (predominantly single dwellings with a grouped dwelling site and associated public open space). The structure plan is valid until 2025, and the subdivision has not yet progressed (2023).

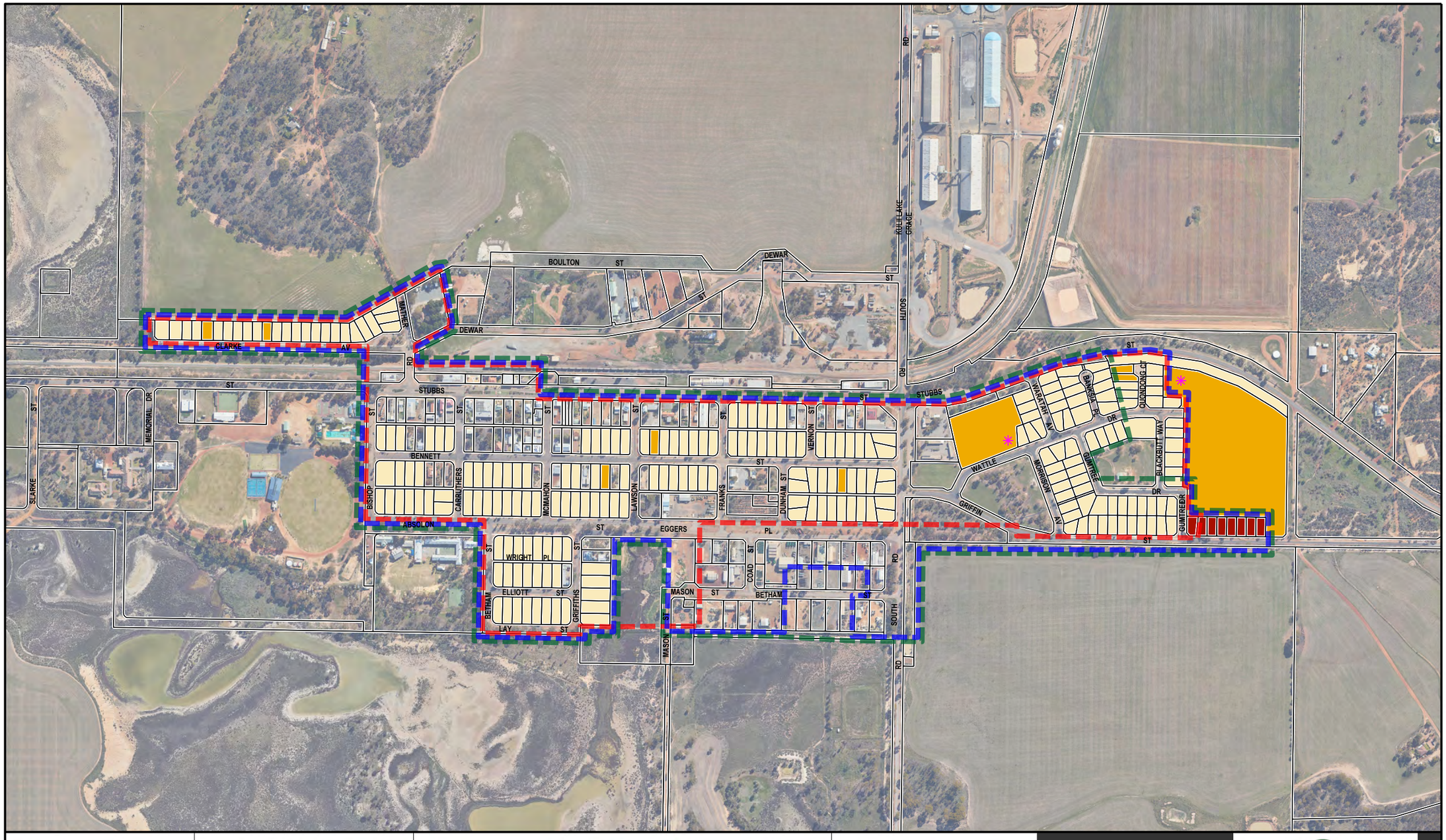
The Shire also owns the ‘Special Use’ site described above (which is subject to rezoning to ‘Residential R30’), that may potentially cater for immediate key worker housing needs (See Housing Investment Concept: Site #4 for further details). The Housing Plan below indicates this site as 'vacant residential land' based on the intention to rezone the site.

The review reveals that Lake Grace townsite has limited vacant land currently available to support key worker housing needs in the medium and longer term. Based on the lack of available land and the requirement to maximise development on existing local government-owned land, Lake Grace townsite was selected to provide two shortlisted sites for consideration of the 'Housing Development Concepts'.

Recommendation

It is recommended that the Shire of Lake Grace earmark sites to accommodate 15 key worker dwellings immediately to address the under provision of key worker housing. Additional sites to accommodate up to 23 key worker dwellings in the short term (2026) will also need to be identified. The following suggestions may support the release of land and increase the capacity for the provision of key worker housing in the Lake Grace townsite:

- Progress rezoning of Lot 500 Wattle Road, Lake Grace, from ‘Special Use’ to ‘Residential R30’.
- Progress subdivision of Lot 9002 Griffin Street, possibly increasing the density in later stages to facilitate a higher dwelling yield.
- Accessing State government-owned land may yield additional sites for key worker housing, and address short-term key worker housing need. However, the state government-owned sites are currently constrained for development. A number of these sites are considered for possible inclusion in the Noongar Land Estate, located in bushfire prone areas, and require further investigation into the vegetation status and suitability for clearing.
- Review of the Local Planning Strategy and Local Planning Scheme to address town site expansion to accommodate long term housing needs.



DISCLAIMER -
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Housing Investment Concept Site #4 (Portion of Lot 500 Wattle Road, Lake Grace)

The Shire of Lake Grace first preferred shortlisted site (the site) for consideration of a 4WDL Housing Investment concept is local government owned land located at Portion of Lot 500 Wattle Road, Lake Grace (see Figure 9: Location Plan). The site is zoned 'SU12 Roadhouse, Motel, Aged Persons Accommodation' under the Shire of Lake Grace Local Planning Scheme No.4 (See Figure 10: Shire of Lake Grace Local Planning Scheme No.4 (LPS) Extract) with an area of 14,573m^2. (See Table 15: Site #4 Details). The portion of the site for consideration of development of six grouped dwellings is approximately 2500m^2.

The Shire of Lake Grace Council initiated an Amendment to change the zoning on the site to 'Residential R30' (October 2023)). Prior to the Special use zoning of the site in 2000, the site was zoned Residential R17.5/30. The special use zone was applied to the site to reflect a specific proposal to accommodate a motel, roadhouse and aged person accommodation which did not eventuate.

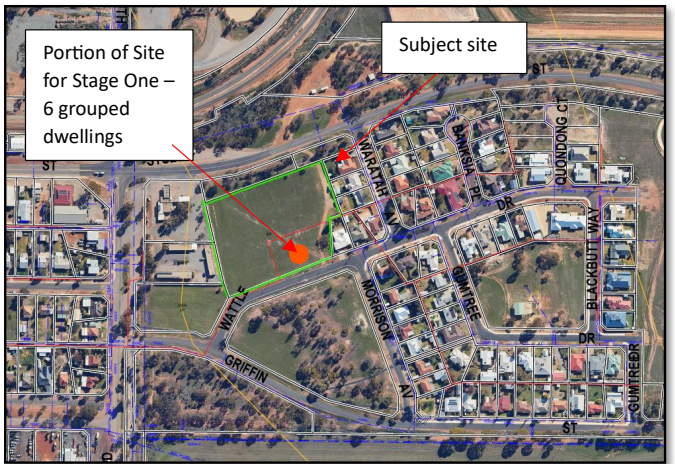


Figure 9: Location Plan

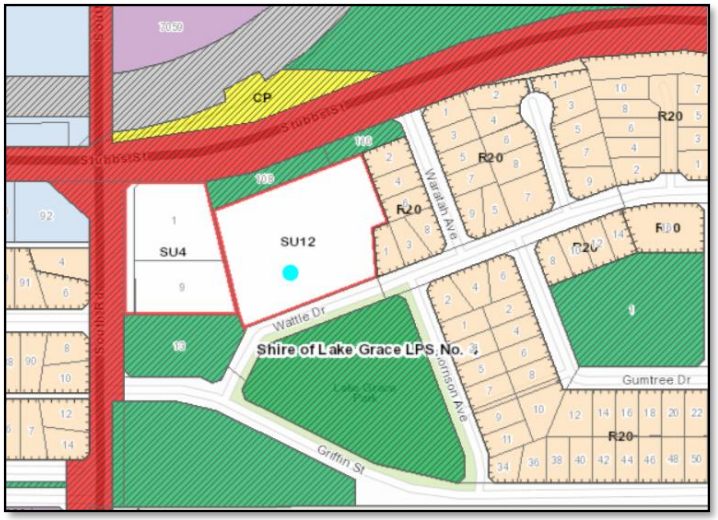


Figure 10: LPS Extract

Table 15: Site #4 Details

Lot #	Road Name	Tenure	Zoning	Area m²	Water	Sewer	Power	Planning Considerations	Bushfire Prone	Dwelling Yield
Portion 500	Wattle Drive	LG	Special Use 12	2,500	✓	✓	✓	Cleared flat serviced land adjacent well located in the town adjacent to Residential Land and Public Open Space. The Shire of Lake Grace Council initiated an Amendment to rezone the site to Residential R30 in October 2023.	No	6

The desktop site assessment reveals that sewer, water and power services are available to service Site #4, however extension will be required to service the entire site. The assumption for the preliminary business case modelling is that the site will be considered 'as if' it is zoned Residential R30. The inclusion of a portion of Lot 500 Wattle Drive, Lake Grace in the Cost Benefit Analysis (CBA) and Preliminary Business case is contingent on the local government ensuring that the status of the planning framework is updated as set out in the assessment. The CBA will not consider the variables in the process required to meet the planning framework.

The housing investment concept costings are based on preliminary desktop analysis for the cost of developing key worker housing and connection to water, sewer and power. Confirmation of development will be subject to (the appropriate zoning as discussed above) the preparation and approval of a development application and site plan (unless defined as public works), and a building licence which will need to include the following considerations:

- Certificate of Title encumbrances (if applicable)
- Site Survey

The estimated servicing and development costs provided in Table 16 below relate to the development of six modular grouped dwellings comprising four- two bedroom/two-bathroom dwellings and two-three bedroom/two bathroom dwellings at Site #4.

Table 16: Estimated Servicing and Development Costs

Portion of Lot 500 Wattle Road, Lake Grace	**Costs**
Headworks	$63,717
Site works and servicing	$240,000
Construction	$1,836,000
Four 2-bed, 2-bath	*$291,000 per dwelling*
Two 3-bed, 2-bath	*$336,000 per dwelling*
Wheatbelt weighting	20%
Escalation to Dec 2024	5.1%
Construction contingency	20%
Design and professional fees contingency	5%
TOTAL	**$ 3,198,972**
Per dwelling	*$ 533,162*

Housing Investment Concept Site #7 (Portion of Lot 9002 Griffin Street, Lake Grace)

The Shire of Lake Grace second preferred shortlisted site (the site) for consideration of a 4WDL Housing Investment concept is local government owned land located at Portion of Lot 9002 Griffin Street, Lake Grace (see Figure 11: Location Plan). The site is zoned Residential R20 under the Shire of Lake Grace Local Planning Scheme No.4 (See Figure 12: Shire of Lake Grace Local Planning Scheme No.4 (LPS)Extract) with an area of 903m^2 (See Table 17: Site #7 Details) and has the potential to yield two grouped dwellings.

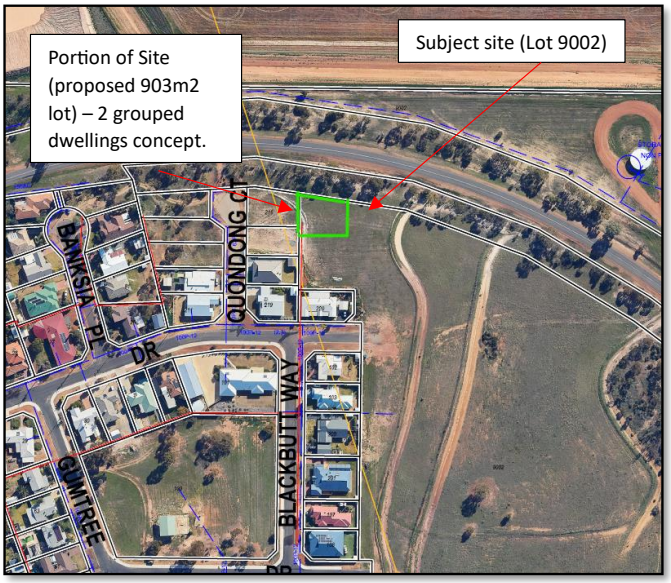


Figure 11: Location Plan

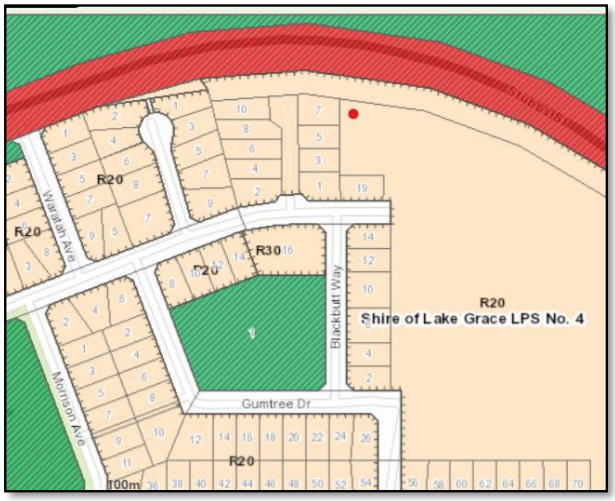


Figure 12: LPS Extract

Table 17: Site #7 Details

Street #	Lot #	Road Name	Tenure	Zoning	Area m²	Water	Sewer	Power	Planning Considerations	Bushfire Prone	Dwelling Yield
18	Portion of Lot 9002	Griffin Street	LG	R20	903m²	Services are accessible and will be provided through the overall subdivision process on Lot 9002.			Confirmation of a subdivision approval in accordance with the Structure Plan adopted in 2009. Shire of Lake Grace currently pursuing a subdivision for 21 lots on Lot 9002.	No	2

The desktop site assessment reveals the following about Site #7 :

- The creation of the site is required to be confirmed via a subdivision application consistent with an approved Structure Plan approved in 2009.
- Sewer, Water and Power services are accessible and require extension to service the site.

The housing investment concept costings are based on preliminary desktop analysis for the cost of developing key worker housing and connection to water, sewer and power. Confirmation of development will be subject to finalisation of the broader subdivision, and preparation and approval of a development application and site plan (unless defined as public works), and a building licence which will need to include the following considerations:

- Certificate of Title encumbrances (if applicable)
- Site Survey

The estimated servicing and development costs provided in Table 18 below relate to the development of two modular grouped dwellings comprising two- two bedroom/two-bathroom dwellings at Site #7.

Table 18: Estimated Servicing and Development Costs

Portion of Lot 9002 Griffin Road, Lake Grace	**Costs**
Headworks	$ 26,001
Site works and servicing	$ 106,000
Construction	$ 582,000
Two 2-bed, 2-bath	*$291,000 per dwelling*
Wheatbelt weighting	20%
Escalation to Dec 2024	5.1%
Construction contingency	20%
Design and professional fees contingency	5%
TOTAL	**$ 1,066,515**
Per dwelling	*$533,258*

Shire of West Arthur: Darkan Townsite

Planning and Servicing Context

The desktop site assessment reveals that the townsite of Darkan is predominantly zoned Residential R12.5 under the *Shire of West Arthur Local Planning Scheme No. 2* (LPS). LPS2 also includes an exemption to the Residential Codes (R-Codes) under Clause 5.3 which states that:

> *'The Council may permit a variation to the R12.5 density up to a maximum of R20 for the development of more than one dwelling on a lot but only where:*
>
> *(a) The Council is satisfied that the lot is suitable for long-term effluent disposal,*
>
> *(b) the lot is suitably located close to services and facilities; and*
>
> *(c) the Council after following the advertising procedures in clause 9.4 is satisfied that there will not be adverse impacts on local amenities'*

There is no sewerage scheme in the townsite of Darkan and each property is serviced by an onsite effluent sewage system.

The Water Corporation operates the water scheme in West Arthur/Darkan West Arthur/Darkan is supplied with water via a small farmlands water main that comes off the Water Corporation's Great Southern Towns Water Supply Scheme (GSTWSS) trunk main and runs southwards along Quindanning-Darkan Rd. The Quindanning Rd tank and chlorine dosing point is located 5km northwest of the town. Darkan water reticulation mains are supplied under gravity from the tanks. The Darkan water scheme has around 184 water services (customers). Any significant development in the town will require further investigation to determine the impact on the scheme. The water reticulation mains serving customers in the townsite area are 100mm diameter. Mains of this size are typically adequate to provide normal services to low density residential developments.

Darkan Vacant Land Assessment and Key Worker Housing demand

The KWHA 2023 reports that the Shire of West Arthur population has seen a slight decline in population (95 people) in the last ten years and is forecast (WA Tomorrow) to remain relatively stable with a slight decline of around 83 people over the next decade. The KWHA 2023 analysis reports that key worker housing demand for the Shire of West Arthur ranges from 21 (low estimate) to 41 (high estimate) additional dwellings by 2031.

The KWHA demand analysis indicates a current key worker housing supply shortage of 8 dwellings, with an additional 5-13 dwellings required in the short-term (2026) to address key worker accommodation needs in the Shire West Arthur. On this basis, it is noted that the townsite of Darkan needs to provide between 13-21 key worker dwellings to cater for immediate and short-term demand.

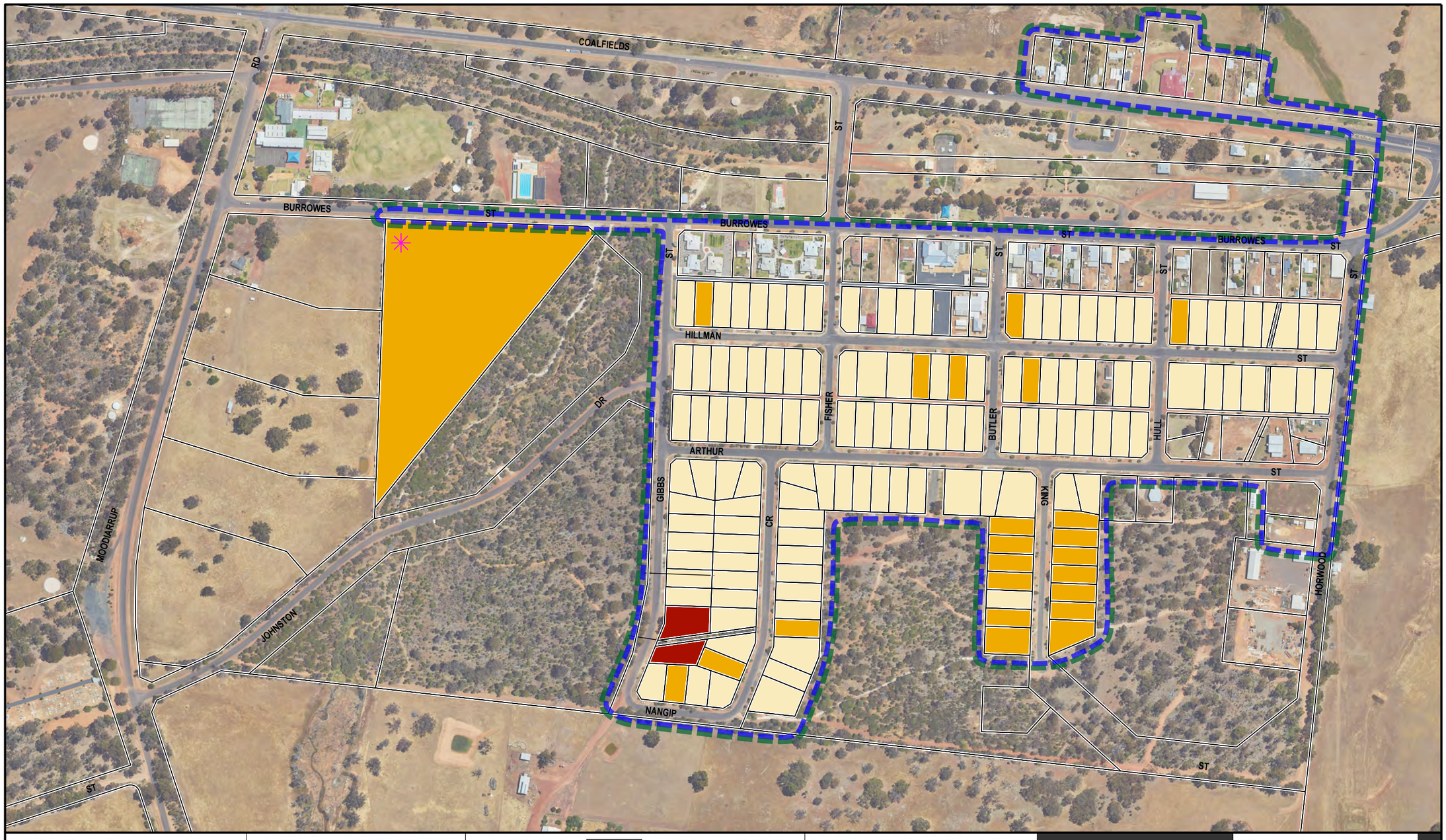
A vacant land assessment has been undertaken for the 4WDL in 2023, revealing the extent of suitably serviced, vacant 'Residential' zoned land available for developing key worker housing products. The findings of the vacant land assessment are in *Table 2: Estimated 4WDL Vacant Residential Zoned Land by Townsite,* and the capacity for the town to accommodate the demand is described in *Table 3: High-level Estimate of Residential Development Potential in 4WDL Townsites*. A Local Housing Plan titled 'Darkan Townsite Housing Potential' reveals the location of vacant 'Residential' zoned land.

In summary of this information, the Darkan townsite has approximately 25 vacant residential lots, of which 23 have access to power and water services. Two vacant sites are considered for inclusion in the Noongar Land Estate (suggesting 22 remaining accessible vacant lots). The majority of the remaining vacant sites (13 lots) are located in the King Street subdivision created by the Shire of West Arthur. These were sold privately with the requirement to be developed within three years, and therefore, they are earmarked for the development of single dwellings. The Shire of West Arthur owns three vacant residential lots, one is earmarked for development of Shire worker accommodation, one is utilised for car parking. However, 22 (Lot 309) Burrowes Street owned by the Shire of West Arthur is available for development and has the potential for the subdivision of multiple lots (between 21-24 lots) with various lot sizes to accommodate a range of single and grouped dwelling sites.

Recommendation

It is recommended that the Shire of West Arthur earmark sites to accommodate 8 key worker dwellings to address immediate demand, with an additional 5-13 dwellings required to accommodate key worker dwellings in the short term (2026). The Shire of West Arthur has one site (Site #5 below) with the potential to cater to the immediate, short and medium term key worker housing needs within the Darkan Townsite and is recommended to progress to subdivision.

Longer term housing needs may require rezoning underutilised reserves in the townsite or expanding the townsite into adjoining rural residential areas.



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0 40 80 120 160
metres

Base data supplied by Landgate (Aerial Photo - 11/2018)

LEIGHTON land development DRAFTING & visuals
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LEGEND

- DEVELOPED RESIDENTIAL ZONED LAND
- EXTENT OF POWER SERVICES (RESIDENTIAL ZONE)
- EXTENT OF WATER SERVICES (RESIDENTIAL ZONE)
- VACANT RESIDENTIAL LAND
- UNDER CONSIDERATION FOR POSSIBLE INCLUSION IN THE NOONGAR LAND ESTATE
- SHORT LISTED SITE

CLIENT	:	***SHIRE OF WEST ARTHUR***
SCALE	:	*1:4,000 @ A3 / 1:2,000 @ A1*
DATE	:	*28 November 2023*
PLAN No	:	*DAR-1-001*
REVISION	:	*A*
PLANNER	:	*JE*
DRAWN	:	*BL*

DARKAN TOWNSITE HOUSING POTENTIAL (VACANT LAND ASSESSMENT) OCTOBER 2023

SHIRE OF WEST ARTHUR

JE PLANNING
Mobile 0408 901 192 Email: janine@jeps.com.au

FIGURE 1

Housing Investment Concept #5 (Portion of Lot 309 Burrowes (West) Street, Darkan)

The Shire of West Arthur's preferred shortlisted site (the site) for consideration of a 4WDL Housing Investment concept is local government-owned land located on Portion of Lot 309 Burrowes (West) Street, Darkan (see Figure 13: Location Plan). Lot 309 Burrowes Street is zoned Residential R12.5 under the Shire of West Arthur Local Planning Scheme (See Figure 19: Shire of West Arthur Local Planning Scheme Extract) with a total land area of development area of 37,470m^2 (See Table 18: Site #5 Details). The portion of the site, the subject of the concept is 4000m^2 with potential to yield four grouped dwellings.

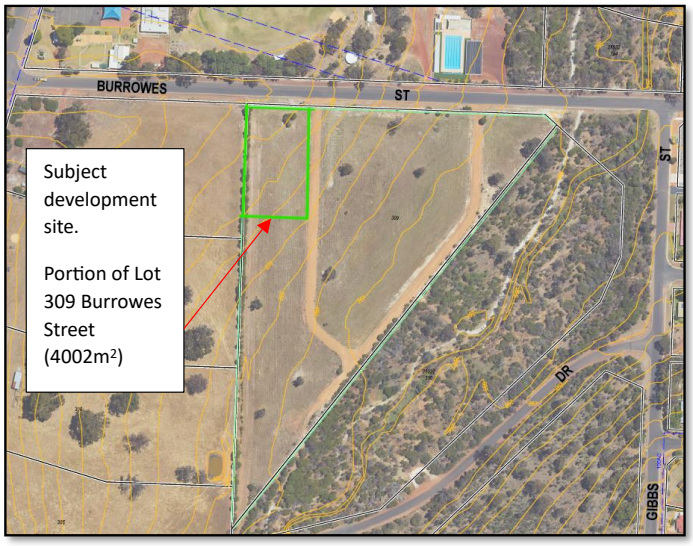


Figure 13: Location Plan

Figure 14: LPS Extract

Table 19: Estimated Servicing and Development Costs

Street #	Lot #	Road Name	Tenure	Zoning	Area	Water	Power	Planning Considerations	Bushfire prone	Dwelling yield
22	309	Burrowes Street	LG	R12.5	37,470 (total) 4002 (Site #5)	40m	✓	Lot 309 Burrowes Street is a large, cleared site with an existing gravel road layout. The portion of Lot 309 for consideration of the key worker grouped housing site is located on the northwestern corner of the site immediately adjacent to Burrowes Street West. Power services run along Burrowes street. A subdivision of 28 lots has previously been approved across the entire site which has now expired.	No	4 The lot yield may increase depending on the outcomes of a Site and Soil Evaluation.

The development potential of Site #5 is based on the minimum lot size of 1000m^2 for unsewered areas as set out in 5.2.1 of the 'Government Sewerage Policy'. The outcomes of a site and soil evaluation (SSE) will confirm if there is any possibility to consider an R12.5 density development (five grouped dwellings) or an R20 development (eight grouped dwellings) as an exemption to the R-Codes set out in the Shire of West Arthur Local Planning Scheme No.2.

The desktop site assessment reveals the following about Site #5:

- Water and Power services are accessible and require extension to service the site.
- This lot will have full access to utilities as the surrounding subdivision is extended.
- Some fill and earthworks may be required.
- Density greater than R10 can be determined following a site and soil investigation.

The housing investment model costings are based on preliminary desktop analysis for developing key worker housing, connection to water and power services, and provision of onsite effluent disposal system(s). Confirmation of development costs will be subject to the preparation and approval of a development application and site plan (unless defined as public works), and a building licence which will need to include the following considerations:

- Certificate of Title encumbrances (if applicable)
- Site Survey
- Site and Soil Evaluation
- Septic Tank proposal

The estimated servicing and development costs provided in Table 20 below relate to the development of four modular grouped dwellings comprising four- two bedroom/two-bathroom dwellings at Site #5. Site works costs increased due to the infrastructure extension required of approximately 40 metres is required.

Table 20: Estimated Servicing and Development Costs

Portion of Lot 309 Burrowes (West) Street, Darkan		**Costs**
Headworks	$	106,607
Site works and servicing	$	190,000
Construction	$	1,164,000
Four 2-bed, 2-bath		*$291,000 per dwelling*
Wheatbelt weighting		20%
Escalation to Dec 2024		5.1%
Construction contingency		20%
Design and professional fees contingency		5%
TOTAL	**$**	**2,171,050**
Per dwelling	*$*	*542,762*

Shire of Woodanilling: Woodanilling Townsite

Planning and Servicing Context

The desktop site assessment revealed a range of low residential densities with codes from R2 – R10 across the townsite under the *Shire of Woodanilling Local Planning Scheme No.1*. The majority of town is zoned R5, with the most intensive development located east of the rail line at a density of R10, adjacent to the town centre. The townsite remains largely undeveloped with large tracts of vegetated R5 and R2 land in the south – east and west of town, which includes vegetation mapped as a Threatened Ecological Community (TEC) - Eucalypt woodlands of the Western Australian Wheatbelt. This TEC is federally protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

There is no sewerage scheme for the Woodanilling townsite. The Water Corporation operates the water scheme in West Arthur. Woodanilling is part of the GSTWSS and is supplied from the GSTWS NK Extension. Woodanilling currently has 91 water services. Water reticulation mains are supplied off the NK main via a single Pressure Reducing Valve (PRV). There is no local water storage tank. Any significant development in the town will require further investigation to determine the impact on the scheme. The water reticulation mains serving customers in the townsite area are 100mm in diameter. Mains of this size are typically adequate to provide normal services to low density residential developments.

Woodanilling Vacant Land Assessment and Key Worker Housing demand

The KWHA 2023 reports that the Shire of Woodanilling population has seen a small increase in population (29 people) in the last ten years and is forecast (WA Tomorrow) to remain relatively stable population over the next decade. The KWHA 2023 analysis reports that key worker housing demand for the Shire of Woodanilling ranges from 16 (low estimate) to 30 (high estimate) additional dwellings by 2031.

The KWHA demand analysis indicates a current key worker housing supply shortage of 7-14 dwellings, with an additional 6-13 dwellings required in the next five years to address the short-term key worker accommodation needs in the Shire Woodanilling.

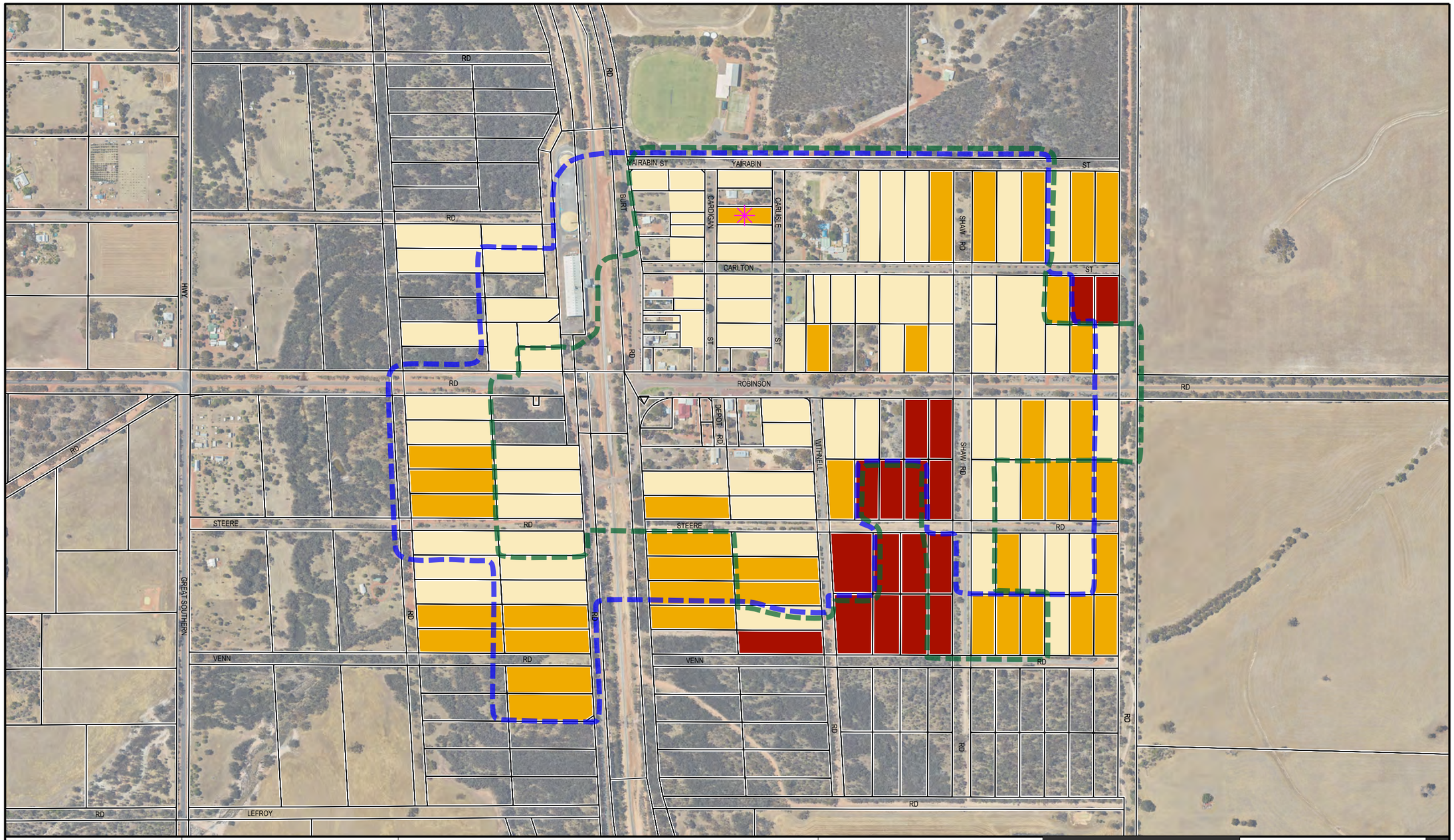
A vacant land assessment has been undertaken for the 4WDL in 2023, revealing the extent of suitably serviced, vacant 'Residential' zoned land available for developing key worker housing products. The findings of the vacant land assessment are in *Table 2: Estimated 4WDL Vacant Residential Zoned Land by Townsite,* and the capacity for the town to accommodate the demand is described in *Table 3: High-level Estimate of Residential Development Potential in 4WDL Townsites*. A Local Housing Plan titled 'Woodanilling Townsite Housing Potential' reveals the location of vacant 'Residential' zoned land is included below.

In summary of this information, the Woodanilling townsite has approximately 60 vacant residential lots, of which 17 have access to all available services. Most unserviced sites include riparian vegetation and many vacant sites are considered for possible inclusion in the Noongar land estate. Most vacant serviced sites are zoned R5, so the development potential is quite low. The Shire of

Woodanilling owns two vacant serviced residential lots, each potentially yielding one additional dwelling with ancillary accommodation. Based on these figures, the Shire of Woodanilling will not be able to provide immediate and short-term key workers within the Woodanilling Townsite.

Recommendation

The townsite of Woodanilling needs to provide available land for up to 13-27 key worker dwellings to cater to immediate and short-term demand (2026). The development of single dwellings with ancillary accommodation may be the best option to cater to key worker accommodation under the current densities; however, will rely on private landowners seeking to develop. Upcoding of the R5 areas, which are characterised by largely cleared land and are close to services, may increase the potential for the provision of key worker housing. To cater for additional development into the future , there may be a need to review and potentially rezone areas for townsite expansion under the Local Planning Scheme.



DISCLAIMER -
The information contained on this map is based on a manual desktop assessment using publicly available data sources and created for illustration purposes only and is to be used as a guide for initial planning purposes only. JE Planning cannot guarantee the information's accuracy and should not be relied upon for commercial or investment decision -making.

0 60 120 180 240
metres

Base data supplied by Landgate (Aerial Photo - 12/2018)

LEIGHTON land development DRAFTING & consult
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LEGEND

- DEVELOPED RESIDENTIAL ZONED LAND
- EXTENT OF POWER SERVICES (RESIDENTIAL ZONE)
- EXTENT OF WATER SERVICES (RESIDENTIAL ZONE)
- VACANT RESIDENTIAL LAND
- UNDER CONSIDERATION FOR POSSIBLE INCLUSION IN THE NOONGAR LAND ESTATE
- SHORT LISTED SITE

CLIENT	:	***SHIRE OF WOODANILLING***
SCALE	:	*1:6,000 @ A3 / 1:3,000 @ A1*
DATE	:	*27 November 2023*
PLAN No	:	*WOO-1-001*
REVISION	:	*A*
PLANNER	:	*JE*
DRAWN	:	*BL*

WOODANILLING TOWNSITE HOUSING POTENTIAL (VACANT LAND ASSESSMENT) OCTOBER 2023

JE PLANNING
Mobile 0408 901 192 Email: janine@jeps.com.au

FIGURE 1

Housing Investment Concept Site #6 (13(Lot 129) Cardigan Street, Woodanilling)

The Shire of Woodanilling preferred shortlisted site (the site) for consideration of a 4WDL Housing Investment concept is local government owned land located at 13 (Lot 129) Cardigan Street, Woodanilling (see Figure 15: Location Plan). The site is zoned Residential R10 under the Shire of Woodanilling Local Planning Scheme No.1 (See Figure 16: Shire of Woodanilling Local Planning Scheme No.1 (LPS) Extract) with a lot area of 2732m^2 (See Table 21: Site #6 Details). The site is currently developed with a single house and has the potential for an additional single dwelling with ancillary accommodation.

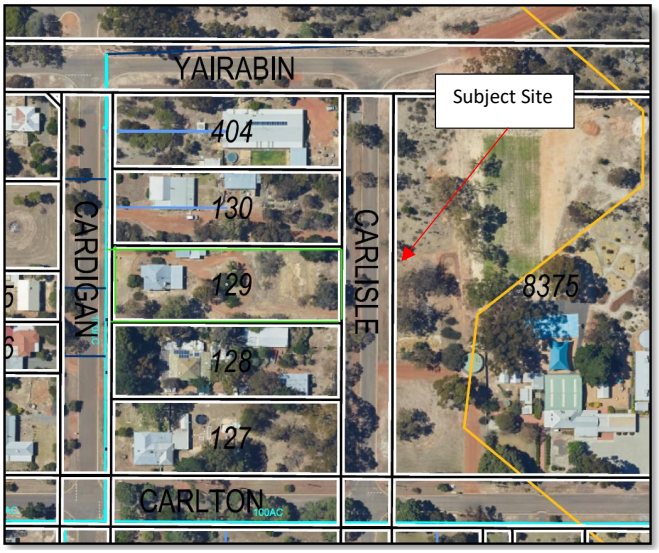


Figure 15: Location Plan

Figure 16: LPS Extract

Table 21: Site #6 Details

Street#	Lot #	Road Name	Tenure	Zoning	Area	Water	Power	Planning Considerations	Bushfire prone	Dwelling Yield
13	129	Cardigan Street	LG	R10	2732	✓	✓	Dual street frontage with an existing dwelling with frontage to Cardigan Street, and the vacant rear portion with frontage to Carlisle Street. Proposal to create a development site on the portion of the lot with frontage to Carlisle Street. Proposed dwelling and ancillary dwelling to have direct access to Carlisle Street	yes	Single and ancillary dwelling

The desktop site assessment reveals that water is connected and power services are accessible for Site # 6.

The housing investment model costings are based on preliminary desktop analysis for the cost of developing key worker housing and connection to water and power services, and provision of onsite effluent disposal system(s). Potential (not necessary) to apply for green title subdivision to excise the back portion of lot. Development of the site may require consideration of Certificate of Title encumbrances (if applicable). Confirmation of development costs will be subject to the preparation and approval of a development application and site plan (unless defined as public works), and building licence which will need to include the following considerations:

- Certificate of Title encumbrances (if applicable)
- Site Survey
- Septic Tank proposal

The estimated servicing and development costs provided in Table 22 below relate to the development of one single and one ancillary modular dwelling comprising one- two bedroom/two-bathroom dwelling, and one – one bedroom/one bath ancillary dwelling at Site #6. The development requires onsite effluent disposal. It has been assumed the dwellings would share common septic infrastructure to reduce costs. Being in a bushfire prone area, a contingency has been put on to account for likely increased building costs.

Table 22: Estimated Servicing and Development Costs

13 (Lot 129) Cardigan Street, Woodanilling		**Costs**
Headworks	$	37,389
Site works and servicing	$	106,000
Construction	$	479,000
One 2-bed, 2-bath		*$291,000 per dwelling*
One 1-bed, 1-bath ancillary		*$188,000 per dwelling*
Wheatbelt weighting		20%
Escalation to Dec 2024		5.1%
Construction contingency		20%
Design and professional fees contingency		5%
TOTAL	**$**	**948,585**
Per dwelling	*$*	*474,292*

4 Conclusion

The identification of shortlisted sites for housing investment concepts has led to a combined proposal for 33 dwellings across the 4WDL, to commence addressing the shortage of key worker housing in the region. The total cost for provision of the 33 key worker modular homes as a package is estimated to be approximately $17,500,000 with an average estimated cost for servicing and construction of each dwelling being $525,971. Site and servicing costs range between $40K per dwelling for larger developments and upwards of $50K per dwelling as the development yield reduces. Headworks costs are location specific.

Analysing near-term solutions for key worker housing revealed trends associated with land capacity and development potential of key towns in the 4WDL to meet housing demand in the short, and medium term is summarised as follows:

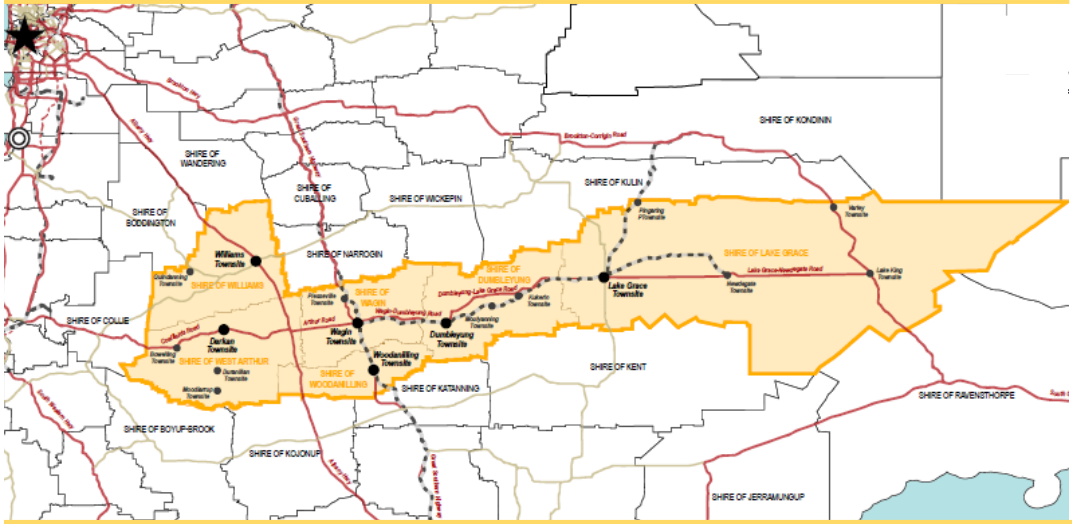
- Dumbleyung and Wagin townsites offer significant potential for key worker housing on vacant residential-zoned land, contingent on servicing improvements. Both towns exhibit a range of densities under the Local Planning Scheme.
- Darkan and Williams can meet housing demand with service upgrades and planned expansion on large lots on the town periphery, despite limited vacant land in the existing townsites.
- Lake Grace faces high unmet demand for key worker housing, constrained by limited vacant land in the townsite. Limited expansion opportunities exist for immediate and short-term demand, subject to planning process reviews and approvals. Future planning for Lake Grace needs to consider townsite expansion and rezoning to accommodate future growth.
- Woodanilling is heavily constrained by low densities, bushfire concerns, and environmental factors. Upcoding areas with vacant cleared land offers a potential avenue for additional growth, along with potential to review the scheme to identify townsite expansion opportunities. Otherwise development within rural residential areas may be considered to address housing demand in Woodanilling.

The broader townsite development constraints are identified to confirm that unlocking development potential is manageable. These constraints do not impact the short-term delivery of key worker housing on identified sites or other vacant, appropriately zoned serviced sites. Furthermore, they do not hinder confirmation of external funding from the State and/or Federal Government to support short-term key worker housing delivery.

The Local Housing Plans and Housing Investment Concepts presented provide context for the 4WDL Key Worker Housing Preliminary Business Case 2024.

KEY WORKER HOUSING ANALYSIS 2023

PREPARED FOR THE 4WDL SHIRES AND THE WHEATBELT DEVELOPMENT COMMISSION



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	Revision 1b	JE	Revision of Draft	12.04.2023
			Final Draft	

Acknowledgement of Country

JE Planning Services is located on Gnaala Karla Booja. We acknowledge the Traditional Custodians of the lands on which we live and work throughout Western Australia and pay our respects to Elders past, present and emerging.

Contents

Executive Summary

Key worker housing supply and affordability challenges are increasingly common across regional areas in Australia, impacting the ability to attract and retain key workers. The combination of small labour markets, flat and declining populations, comparatively low median housing market prices, and development feasibility issues require coordinated government intervention.

The Key Worker Housing Analysis (KWHA) for the 4WDL region presents evidence to confirm the extent of the housing shortage in the Shires of Williams, Wagin, West Arthur, Woodanilling, Lake Grace and Dumbleyung. The KWHA includes a Regional Housing Economic Analysis that identifies and tests the key feasibility of local government-led housing delivery, ownership and management models across Australia.

Aggregating data across local government areas in stalled regional markets aims to create sufficient scale for commercially feasible housing development, together with government investment intervention to fund the 'failed market' gap. The KWHA establishes the scale of demand for purpose-built and appropriate key worker housing, revealing a lack of accommodation to support lone, small and aged households. The expansive land area of the 4WDL region, combined with the comparatively small size of many communities, impacts the viability (and interest) of private housing construction and supply.

The KWHA reveals the following challenges and opportunities: -

- Key worker housing demand across the six LGAs is estimated to be 2.5 times greater than current building activity (see Table 1 below (extract from the main report)).
- The opportunity cost of not investing in key worker housing ranges from a loss of economic contribution of $126,000 to $265,000 per worker per year.
- Preliminary construction feasibility analysis confirms that most towns within the 4WDL Region experience a failure of the private market to deliver housing to the extent that justifies public sector intervention.
- Preliminary feasibility analysis confirms that single dwelling construction across the 4WDL region generates a negative residual value to which the private market is unlikely to respond without incentives and support (See Table 4 below (extract from Appendix D).
- The average failed market gap across the 4WDL region has been assessed at circa $120,000 per dwelling. Failed market is defined as the shortfall between the construction cost of a new dwelling and the comparable lower market value of that same built housing product.
- State and Federal Governments must play a critical role in removing this fiscal burden of negative equity from local government.
- The provision of housing stock suitable for key worker and ageing households and a cost-effective model of dwelling delivery is through the construction of infill grouped dwellings and ancillary accommodation. The feasibility analysis of small housing indicates an opportunity to value manage key worker accommodation construction costs (See Table 6 below (extract from Appendix D)).
- Examples of potential delivery models and interventions across Australia from other State Governments identified opportunities in affordable rentals, shared equity, rent-to-buy schemes, and small housing opportunities, with the latter recommended for 4WDL Region.
- A review of existing vacant land supply points to opportunities for infill development and servicing existing zoned land to meet longer-term housing needs in the 4WDL area. Beyond this study, further site selection analysis is recommended to confirm potential development sites by preparing a Housing Plan for each town site.

Table 17: 4WDL dwelling demand estimates by Local Government Area

The overall estimated figures reveal that the scale of demand over the next decade for the 4WDL region sits between 158 (Low) – 254 (High) key worker dwellings.

Scenario	D - High Estimate Dwelling Demand 2023-2031				E - Conservative Dwelling Demand 2023-2031			
LGA	Total dwellings	Average dwelling demand p.a	Total private sector KWH	Total public sector KWH	Total dwellings	Average dwelling demand p.a	Total private sector KWH	Total public sector KWH
Shire of Wagin	90	9	32	29	66	6	27	15
Shire of Dumbleyung	41	4.1	17	16	32	3.2	15	13
Shire of West Arthur	39	4	15	14	21	2	15	1
Shire of Williams	54	5.4	28	20	34	3.4	17	9
Shire of Woodanilling	36	3.6	20	10	19	2	10	6
Shire of Lake Grace	62	6.2	35	18	35	3.5	25	5
4WDL statistics	322	32.3	147	107	207	20.1	109	49

*Key Worker Housing (KWH)

Appendix D - Table 1 Residual Value, Single Detached Dwelling, Major Towns

Town	Total Construction Cost	Sales Price	Residual Value	Notional Value per SQM
Bowelling	$313,131	$150,000	-$163,131	-$363
Darkan		$135,000	-$178,131	-$396
Dumbleyung		$210,000	-$103,131	-$229
Kukerin		$147,500	-$165,631	-$368
Lake Grace		$230,000	-$83,131	-$185
Lake King		$180,000	-$133,131	-$296
Newdegate		$115,000	-$198,131	-$440
Wagin		$226,700	-$86,431	-$192
Williams		$315,000	$1,869	$4
Woodanilling		$259,000	-$54,131	-$120

Appendix D- Table 2 Construction Costs of Small Housing Product

Indicators	3x2x2	2x2x1	2x1x1	1x1x1	Three 2x2x1	2x1x1+1x1x1
Lot Size	450	400	350	300	1,000	450
Baseline Dwelling Cost	$217,840	$160,320	$153,280	$137,440	$459,840	$245,760
Site Servicing Costs and Fees	$32,665	$32,665	$32,665	$32,665	$65,329	$32,665
Wheatbelt Weighting	15%					
Stamp Duty, Legals, Fees	5%					
Building Contingencies	5%					
Adjusted Costs	$313,131	$241,231	$232,431	$212,631	$656,461	$348,031

Introduction

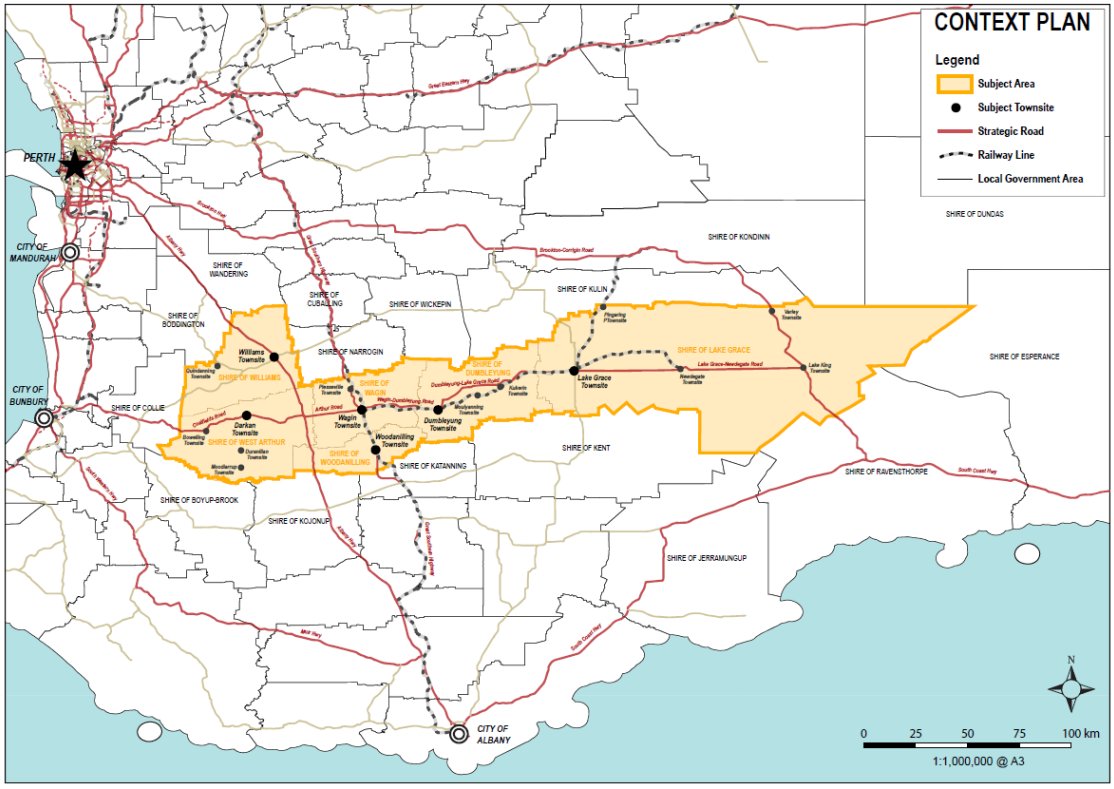
The Wheatbelt Development Commission (WDC), in partnership with the 4WDL Shires, engaged JE Planning Services and Econisis to analyse key worker housing needs and challenges and highlight opportunities to stimulate housing development and investment in the 4WDL region.

Context

The 4WDL region (See Figure 1) encompasses a land area of approximately 21,135 km^2 and comprises the following Local Government Areas (LGAs):

- The Shire of Wagin
- The Shire of Williams
- The Shire of West Arthur
- The Shire of Woodanilling
- The Shire of Dumbleyung
- The Shire of Lake Grace

Figure 1: KWHA Study area



The 4WDL Key Worker Housing Analysis (KWHA) focuses on identifying and quantifying housing demand in the six local government areas and identifying key development feasibility constraints, land

availability, and potential development models to address future regional key worker housing. While the region continues to experience economic growth, limited capital gains and lending restrictions in recent years have impacted the construction of new houses. The 4WDL Shires have identified a critical shortage of suitable key worker housing, which is impacting the ability of the private and public sectors to attract and retain skilled workers and their families in the region. Subsequently, this has increased reliance on drive-in-drive-out workers and the need for accommodation investment.

Purpose

The 4WDL Key Worker Housing Analysis (KWHA) intends to:

- Identify current housing demand and availability in public and private key worker sectors.
- Forecast housing demand for public and private sector workers in the short (current), medium (5 years), and longer term (10 years).
- Provide aggregate data across six local government areas (LGA).
- Identify areas of underutilisation of housing stock.
- Present a range of suitable housing lease and purchase models for the 4WDL LGAs.
- Understand the development and construction feasibility for a range of housing styles.
- Understand Stakeholder impediments or constraints to the supply of housing.
- Recommend solutions to stimulate housing development and investment.

The KWHA aims to inform solutions to:

- Reduce the dependence on drive in, drive out workers in the region.
- Provide purchase and rental accommodation for key workers in the 4WDL area.
- Increase the number of households living in the region.
- Identify development opportunities.

Strategic Alignment

A literature review in Appendix B describes the relevant documents that have informed and provided context for the KWHA. Each Local Government Strategic Community Plan (SCP) and relevant Local Planning Strategy and Local Planning Schemes are addressed. Each of the Local Government Strategic Community Plans highlights strategies or actions to:

- 'Explore affordable accommodation for workers' (Shire of Wagin)
- 'More housing and accommodation would make the Shire a better place live.' (Shire of West Arthur)
- 'To have appropriate levels of housing to cater for population retention and growth' (Shire of Williams)
- 'Development of social and affordable housing, including housing for the well-aged.' (Shire of Woodanilling)
- 'A barrier to encouraging additional trades and professional operators is the lack of key worker housing. The same employee attraction and retention challenge is faced by the farming sector.' (Shire of Dumbleyung)
- 'Despite a population decline, the number of dwellings has increased mostly due to the decrease in average household size over the past 30 years. Should this trend continue even if populations continue to decline, sufficient serviced residential land is needed to address the demand.' (Shire of Lake Grace, Local Planning Strategy)

The following summary of key strategic documents reveals the opportunity cost associated with a lack of key worker housing, and the value in aggregating data across local government areas in stalled regional markets. These documents provide context and highlight the importance of preparing this key worker housing analysis.

Short Stay Tourism Accommodation Plan (SSTA) -Shires of Wagin, Williams, West Arthur, Dumbleyung & Lake Grace (3WDL) (August 2022)

The SSTA provides recommendations and actions to advocate for improved Short Term accommodation facilities in the WWDL area. Overall, the recommendations aim to improve the quality and quantity of short-term accommodation. The recommendations are to increase the current tourism bed capacity overall, emphasizing increased 3-star hotel motel facilities and other accommodation models to attract med- high budget visitors through tiny homes and designer pods. The report reveals an economic benefit of additional visitors based on increasing the accommodation through providing an additional 354 beds over ten years, estimated to provide a combined visitor and flow on spend of 17 million dollars.

WAPC State Infrastructure Strategy – Housing Chapter

The SIS Housing chapter recognises that fit-for-purpose key worker and government officer housing is critical to respond to service needs and positively to contribute to regional economic activity and livability. Housing is an important and often limiting factor in attracting and retaining employees to regional areas who, in turn, support local economic activity. The SIS highlights that many factors contribute to regional housing market failures in regional locations. These factors include inconsistent land supply, high costs of living and development, more transient community members seeking access to rentals rather than homes to purchase, limited investor pools and more difficult commercial project and purchaser lending criteria. Consequently, many regional areas rely on government participation through land development activity and other interventions such as housing delivery and management programs.

The SIS Housing Chapter recommends the preparation of Regional Housing Plans to enable strategic, targeted housing outcomes for each region. Place-based analysis of housing needs, conditions, market activity, and active housing programs and providers is critical to understanding and appropriately responding to housing priorities.

Building the Good Life- Foundation of Regional Housing (May 2022) Regional Housing Institute

The document highlights six clusters of housing markets, most of which apply to rural and regional areas. The market type applied to the 4WDL area is 'Stalled', which relates to small, inland and low-cost development. Stalled Markets arise because local demand cannot warrant a local building and development industry. Construction costs exceed the low average value of local housing, constraining local access to housing finance. To optimise growth in regions, the recommendations of Building the Good Life: Foundations of Regional Housing include:

- Collecting timely statistics on housing needs (including supply and demand) and housing conditions generally in rural and regional areas;
- Improving the promotion and targeting of housing initiatives in rural and regional centres;

Building the Good Life – RAI Discussion Paper – Meeting the demand for Regional Housing

This discussion paper highlights the drivers of housing problems in different parts of regional Australia. This paper highlights that jobs are unfilled simply due to a lack of suitable housing in stalled regional markets. The report states that activity has stalled because of the small scale of these markets and because local households face constrained access to housing finance. These regions also face issues with the overall quality of local stocks due largely to constrained access to finance. This report also introduces the concept that creating scale through aggregating communities may attract investment.

Report Structure and Methodology

The 4WDL Key Worker Housing Analysis incorporates two main components.

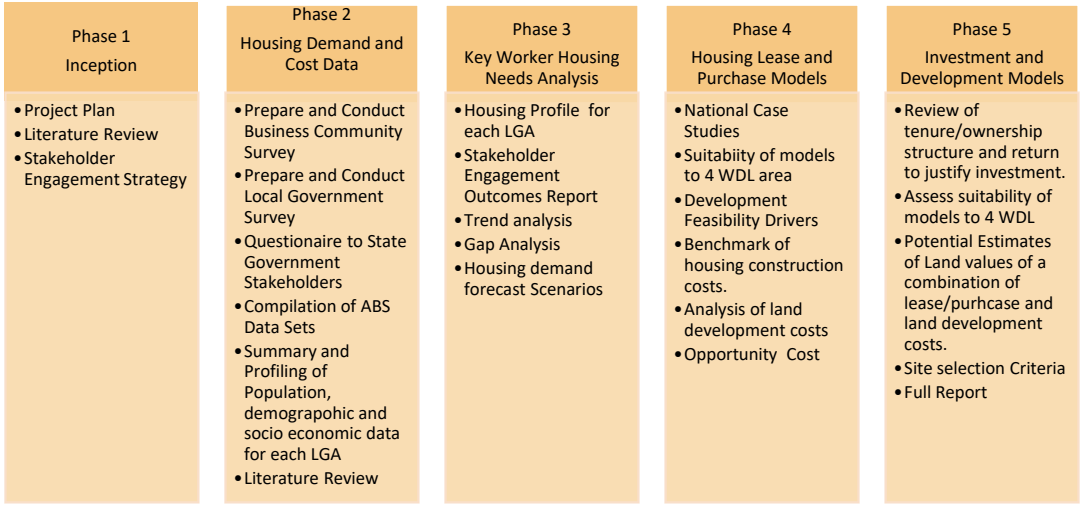
1. Key Worker Housing Needs Analysis
2. Housing Development Models and Feasibility Report

The Research and Analysis components of the KWHA include qualitative and quantitative analysis, as described in Table 1.

Table 1: Research and Analysis Components of KWHA

Analysis	Project Deliverables	Relevant Reference and Documents
Qualitative Analysis	Stakeholder Engagement Strategy	Available on request
	Literature Review	Appendix B Strategic Alignment chapter
	Stakeholder Engagement Outcomes	Appendix C
	4WDL Working Group	Emails, Meetings, Review
	Regional Housing Models	Appendix D
	Investment and Tenure Model Review	Appendix D
Quantitative Analysis	Housing Demand and Cost Data	Housing Demand Chapter
		Appendix A (LGA Housing Profiles)
	Market Feasibility Assessment	Appendix D
	Opportunity Cost	Appendix D

Figure 2: KWHA Methodology



The KWHA outputs which support the findings in this report are presented as follows:

Local Government Area (LGA) Housing Profiles (Appendix A)

The Local Government Area Housing Profiles address each Local government separately with a breakdown by each town where the data is available. The Profile includes a range of tables and information, including:

- Population and dwelling Trends between 2011-2021,
- Population Forecast to 2031
- Household Composition and Dwelling Trends (2011- 2021)
- Dwelling Tenure and Occupancy Trends
- State and Local Public Sector Workforce
- Housing Need Assessment (Based on High and Low Scenario Modelling)
- Housing Demand and land availability

Stakeholder Engagement Outcomes Report (Appendix C)

Stakeholder engagement outcomes informed the Key Worker Housing Needs Analysis and provided valuable ground truthing of the ABS Census data to prepare the demand analysis. The data provides valuable information to verify or meet gaps in available data from the ABS Census. Appendix C provides the detailed outcomes of the Stakeholder engagement methods, which included the following engagement processes:

- Business Community Key Worker and Housing Survey (Business Community Stakeholders)
- Local Government Key Worker and Housing Survey (4WDL working group)
- State Agency Stakeholder Questionnaire

The *Business Community Survey* (BCS) received seventy-one responses across the 4WDL Shires, and all six Shires completed t*he 4WDL Worker Housing Survey* to the extent that information was available. Appendix C includes details of the survey outcomes specific to each Local Government Area.

4WDL Regional Housing Economic Analysis (Appendix D)

The 4WDL Regional Housing Economic Analysis identifies local government-led housing delivery, ownership and management models across Australia and tests key feasibility elements of each of the models based on their potential application to the major townships in the region. This report explores the following topics, and a copy of the full report is in Appendix D:

- Regional Housing Models
- Market Feasibility Assessment
- Investment and Tenure Model Review
- Opportunity Cost Scenarios

Interpretation

Key Workers

The definition of 'Key worker' applied to the KWHA considers a broad definition in alignment with the State Infrastructure Strategy' as 'Anyone employed or self-employed to undertake a role in childcare, retail, service industry, tourism and agricultural workforces either for the public service, or private business which contributes to the economy of 4WDL area.'

The State Infrastructure Strategy (WAPC, 2022) 'Housing Chapter' uses the term' key worker', and while there isn't a specific definition in the Strategy (or under the WAPC State Planning Framework), key workers are referenced in the following context:

'A lack of affordable rental housing targeting key and essential workers, including childcare, retail, service industry, tourism, and agricultural workforces, impacts on service delivery and the overall economy. It is an area of particular concern for regional housing sector stakeholders. Key worker housing has been provided by state and local government and CHOs, but this occurs on a discrete, project basis rather than through formal programs.' (Page 253)

The term 'Key Worker' used in different contexts (namely in response to the COVID pandemic) is an essential employee who is an individual that works in the private or public sector in a profession that is essential to society. Key workers in this regard are determined by the State and are usually authorised to work during emergencies and office closures and defined as 'a worker who fulfils a role regarded as vital for the community, especially in the health, education, security, and infrastructure sectors.' While these workers are part of the key worker definition applied to the KWHA, the definition relates to all workers contributing to the economy.

Housing Typology

The literature, data review, and stakeholder engagement processes highlight the housing typologies used to describe accommodation. The descriptions noted include Single Dwelling, Detached Dwelling, Townhouse, Apartment, Flat, Unit and smaller accommodation. The Residential Planning Codes refer to Single houses, Grouped dwellings and Apartments/Multiple dwellings. The ABS census data refers to the following terms:

- Separate house
- Semi-detached, row or terrace house, townhouse etc.
- Flat or apartment
- Other Dwelling

The density and nature of development, such as flat, apartments, and even townhouses, may not necessarily reflect the type of development eventuating in the 4WDL towns. The report will refer to the housing typologies as Single Dwelling or Grouped Dwelling to generally mean the following:

- Single dwelling -one dwelling per site. Typical standard detached dwelling
- Grouped dwellings – range of ancillary, community title detached dwellings, attached dwellings, townhouses, and apartments etc.

Key Worker Housing Needs Analysis

Summary of facts and findings

- A reduction of 166 dwellings in the region since 2011.
- A decline in the population of 63 people since 2011.
- WA Tomorrow forecasts a decline in the population of 37 people per annum over the next decade.
- 96% of dwellings in the 4WDL region are single houses.
- Families and grouped households represent 71% of the population.
- Lone households represent 29% of the population.
- 4% of dwelling typology provides for aged accommodation or grouped dwellings.
- 78% of dwellings are occupied. A significant percentage of the ABS data reflecting 'Unoccupied Dwellings' is mostly attributable to abandoned farming properties, with some semi-vacant residences in townsites under external ownership (not principal place of residence).
- 4WDL current supply rate of dwellings sits between 11-13 per annum.
- The demand for key worker housing is forecast under this analysis to range between 20.1- 32.3 dwellings per annum throughout the 4WDL area in the coming decade.
- Average cost of construction per dwelling has increased by approximately $86,000 since 2012.
- The private and public sectors represent 90% and 10 % of the workforce respectively.
- Local government lease 60% of housing stock to other agencies or the private sector, however, Local government indicates an average shortfall of 5 units of staff housing for each Shire of the 4WDL currently.
- 24% of public sector workers are provided with accommodation.
- 76% of public sector workers are not provided with accommodation.
- Business Community survey registered an average demand for an additional 1.3 private sector workers per employing business across the 4WDL region.
- Estimate an additional 473 private sector workers to be employed across the region if suitable housing was made available.
- The 2021 ABS Census reported a 2.1% unemployment rate across the 4WDL compared to 5.7% across Western Australia.
- Data reveals an adequate supply of vacant serviced residential land to address short-term key worker housing (i.e. low estimate 160 dwellings overall with 157 vacant serviced lots available).

4WDL Current Situation – Population and Dwellings

According to the ABS census data, the 4WDL Shires aggregate population in 2021 was 5949 representing a slight decline in population (63 people) over the decade since 2011. This data also indicates a reduction of 166 total dwellings since 2011 (see Table 2).

Table 2: Population and Total Dwellings Trends by Local Government Area (LGA) from 2011-2021

LGA	Dumbleyung	Lake Grace	Wagin	West Arthur	Williams	Woodanilling	Total
2011							
Population	605	1360	1846	868	914	419	6012
Dwellings	376	754	949	490	460	205	3234
2016							
Population	671	1268	1852	809	981	409	5990
Dwellings	386	745	943	469	455	204	3202
2021							
Population	681	1265	1761	773	1021	448	5949
Dwellings	339	743	886	376	503	221	3068

Source: ABS Census

The Shire of Dumbleyung, Woodanilling and Williams have experienced a small population increase since 2011, while the Shire of Lake Grace, Wagin and West Arthur is experiencing a slight population decline. Based on the 2021 ABS census data, housing trends across the 4WDL indicates that 78% of the dwellings are occupied (See Table 3), with 96% of housing stock being single dwellings. Census data indicates that 45% of dwellings are owned outright, with a further 22% owned with a mortgage and 32% rented or leased.

Table 3: 4WDL Housing Occupancy, Type and Tenure Trends 2011- 2021

4WDL Trends	2021	2016	2011
Dwelling Occupancy			
Occupied	80%	78%	76%
Unoccupied	20%	22%	24%
Dwelling Type (Occupied)			
Separate house	96%	96%	92%
Semi-detached, row or terrace house, townhouse etc	4%	3%	5%
Flat or apartment	0%	0%	2%
Other dwelling	0%	1%	1%
Tenure (Occupied)			
Owned outright	45%	42%	39%
Owned with a mortgage	22%	23%	26%
Rented	21%	31%	29%
Other tenure type	9%	1%	1%
Tenure type not stated	2%	2%	2%

Source: ABS Census

Table 4: Population distribution and Household Size 2021

Indicators	Dumbleyung (LGA)	Lake Grace (LGA)	Wagin (LGA)	West Arthur (LGA)	Williams (LGA)	Woodanilling (LGA)	4WDL area
Population	681	1265	1761	773	1021	448	5949
Population %	11%	21%	30%	13%	17%	8%	100%
Total Dwellings	339	743	886	376	503	221	3068
Household size	2.3	2.4	2.2	2.2	2.4	2.1	2.3

Source: ABS Statistics 2021

The townsite of Wagin is the largest population centre in the 4WDL region, with the Shire of Wagin comprising 30% of the 4WDL population. The Shire of Lake Grace represents 21% of the population spread between five townsites and surrounding rural areas. The Shire of Williams population (17%) contains 41% of the population in the Williams townsite and the rest in surrounding Rural areas. The Shire of West Arthur and Dumbleyung have similar settlement and population characteristics, with small towns dispersed between agricultural areas. Woodanilling, with 8% of the 4WDL population, functions as a hamlet to nearby towns and supports a robust agricultural community.

Table 5: Total Number of Dwellings based on Rates information November 2022

Which LGA do you represent	Based on rates information how many dwellings are located in residential zones?	Based on rates information how many dwellings are located in Rural areas?	Based on rates information how many dwellings are located in other zones?	Total Dwellings
Shire of Woodanilling	95	Unknown	0	95
Shire Dumbleyung	193	177	0	370
Shire of Lake Grace	373	548	42	963
Shire of Wagin	626	127	0	753
Shire of Williams	196	204	36	436
Shire of West Arthur	124	380	2	506
Total	**1607**	**1436**	**80**	**3123**

Source: KWHA LGA Survey Oct 2022

The LGA survey asked each local government to provide an estimated number of dwellings in the Shire based on rates data (October 2022), which resulted in a combined total of 3123 dwellings (Table 5). Table 5 figures closely correlate with the 2021 ABS data which registers 3068 dwellings. Despite a slight decline in the population, building rates of dwellings has remained stable and demand for housing has increased over the past decade. WA tomorrow forecast predicts an average population decline of 37 people per annum over the next ten years (Table 6).

Table 6: Population Forecast

WA Tomorrow Forecast	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4WDL Population	6,105	6,096	6,088	6,079	6,071	6,009	5,948	5,887	5,828	5,769

Source: WA Tomorrow (WAPC)

Housing Cost and Construction Activity

The Local Government Survey asked each Shire to provide building license statistics for dwellings to understand construction trends in the 4WDL study area. The survey outcomes indicate an average construction of 11.5 dwellings per annum across the 4WDL area over the past ten years (See Table 7). These statistics verify the ABS statistics recording an average of 13 new dwellings built across the 4WDL per annum over the past five years (See Table 8). Figure 6 confirms that most residential accommodations developed in the 4WDL are single dwellings.

Table 7: LGA Building License statistics 2012-2021

	Dwellings approved in Residential/Townsite areas 2012- 2021										
Local Government	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Shire of Woodanilling				1	2	4	3	6	0	3	19
Shire Dumbleyung	6	2	0	0	3	0	0	1	0	1	13
Shire of Lake Grace	1	1	4	2	4	0	2	1	3	3	21
Shire of Wagin	4	5	2	2	8	1	1	2	1	5	31
Shire of Williams	4	6	4	1	0	0	1	2	4	4	26
Shire of West Arthur	0	0	0	0	2	1	1	1	0	0	5
Total Building Licences Approved	15	14	10	6	19	6	8	13	8	16	115

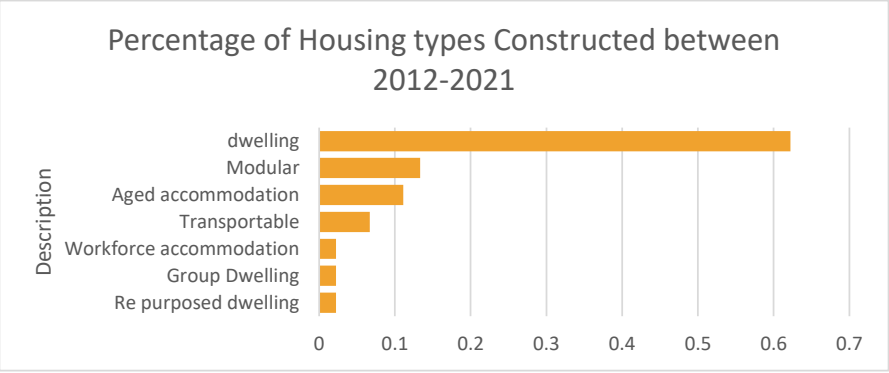
Source: KWHA Local Government Survey 2022

Table 8: ABS Building Activity Statistics 2018- 2022

Local Government	2018-2022
Shire of Woodanilling	6
Shire Dumbleyung	7
Shire of Lake Grace	16
Shire of Wagin	10
Shire of Williams	24
Shire of West Arthur	3
Total Building Licences Approved	66

Source: ABS Statistics

Figure 6: Percentage of Housing Typology



Source: KWHA Local Government Survey 2022

Table 9 provides a combined average estimated spend per accommodation unit (the majority being a single dwelling) based on construction cost estimated on the building license. This table indicates a steady price increase since 2012, with an average spending per dwelling of $330,000 in 2022. This

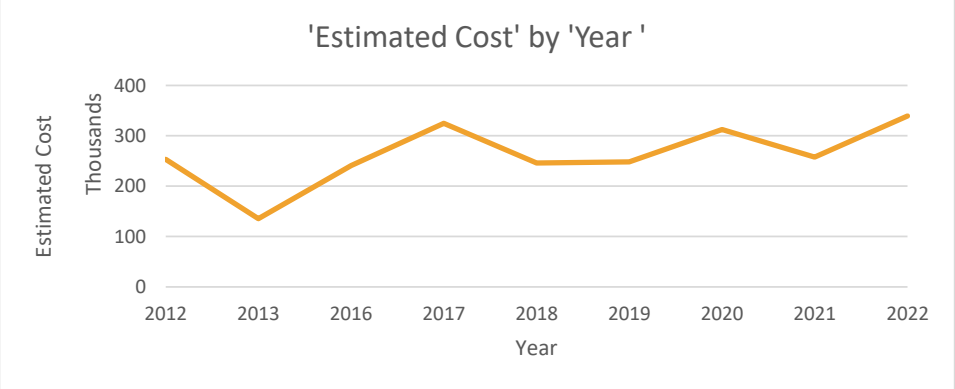
figure may be higher for high-end 4x2 brick or modular homes and much less for a 2x1 aged person accommodation. The cost of housing construction is further explored in this report's Regional Housing Economic Analysis section.

Table 9: 4WDL Average Cost per dwelling by year

Year	Average of Estimated Cost
2012	$253,333
2013	$135,500
2016	$241,250
2017	$325,000
2018	$245,920
2019	$248,539
2020	$312,285
2021	$257,594
2022	$339,389

Source: KWHA Local Government Survey 2022

Figure 7: Cost of Housing from 2012- 2022



Source: KWHA Local Government Survey 2022

Public and Private Sector Key Workers

The following local government and state government agencies employ the Public Sector Key Workers within the 4WDL region:

- Shire of Dumbleyung
- Shire of Wagin
- Shire of Lake Grace
- Shire of West Arthur
- Shire of Williams
- Shire of Woodanilling
- WA Country Health Services (WACHS)
- Department of Community Services
- WA Police
- Department of Education

The total labour force in the 4WDL region is 3269 based on the ABS census data 2021, with approximately 10% representing the State and Local Public Sector Workforce (see Table 10). State governments comprise 60%, and local governments comprise 40% of the public sector workforce. The

private sector workforce comprises key workers from the agricultural, commercial, industrial, tourism, hospitality and retail sectors and accounts for 90% of the housing demand

Table 10: Total 4WDL Labour force and % of State and Local Public Sector Workforce by LGA

LGA	Total Labour Force 2022	State Government Employees	Local Government Employees	% State and Local public sector of workforce
Dumbleyung	403	28	20	12%
Lake Grace	752	72	23	13%
Wagin	971	59	25	9%
West Arthur	428	7	21	7%
Williams	509	26	25	10%
Woodanilling	206	5	12	8%
Total	3,269	197	126	10%

Source: ABS Census 2021

Each Local Government, WACHS and Government Regional Officer Housing (GROH) provide employee housing for public sector key workers. The following table includes data collected through the stakeholder engagement process, listing the number of houses supplied by each agency for key worker accommodation. This is not an inventory of all government owned properties by agency, only those properties housing key workers. LGAs have additional properties rented to other agencies or the private market.

Table 11: Number of Houses supplied for Key workers by Agency and LGA

LGA	Shire Houses	GROH Houses	WACHS Houses	Total
Shire of Wagin	0	13	5	18
Shire of Williams	4	5	0	9
Shire of West Arthur	6	3	0	9
Shire of Woodanilling	3	0	0	3
Shire of Dumbleying	4	7	2	13
Shire of Lake Grace	11	17	2	30
Public Sector Key Worker Accommodation	28	45	9	82

Source: Stakeholder Engagement Outcomes

According to Table 11 above, 34% of public sector housing is provided by local government, GROH provide 55% (owned and leased) and 11 % by WACHS. These figures indicate the number of houses provided to employees of each sector of the public workforce. Local government owns 73 houses within the 4WDL region and currently rent 44 dwellings to other agencies or the private sector, equating to 60% of local government housing stock. While GROH provides the highest housing proportion to its workers, GROH leases 24% of the properties to house key workers. Further details on key workers housing and location are discussed in *Appendix A: Local Government Profiles* and *Appendix C: Stakeholder Engagement Outcome Report*.

According to Table 12 below, 24% of public sector workers are provided with accommodation in the 4WDL area, meaning that currently 76% of public sector workers are not provided with accommodation in the region, and therefore likely drive in drive out, or access existing housing stock or lease accommodation from the Shire. Based on survey outcomes of planned or needed accommodation, the current desired supply level would need to accommodate at least 48% of public sector key workers. These trends indicate a significant lack of public sector housing in the region, with strain on local government owned housing stock to accommodate state and private sector key workers. This statistic implies that at best half of public sector employees need to be accommodated, almost double the

current provision of public sector housing. This figure also indicates that even when the desired level based on current survey outcomes are addressed, over 50% of public sector workers will need to find their own accommodation.

Table 12: % Public Sector workers with housing

LGA	% Public Sector Workers provided with housing currently (2022)	Desired % Public Sector Workers provided with housing based on survey
Shire of Wagin	21%	33%
Shire of Williams	19%	29%
Shire of West Arthur	25%	42%
Shire of Woodanilling	18.75%	81%
Shire of Dumbleying	27%	54%
Shire of Lake Grace	34%	47%
Average	24%	48%

Source: Stakeholder Engagement Outcomes

The private sector employs 90% of key workers in the 4WDL region. The Business Community survey highlights that around 60% of businesses which responded to the survey (12% of businesses) stated that they provide housing for their employees. Most businesses indicated that employees were unsatisfied with their accommodation. The Business Community Survey also revealed that around 65% of businesses had a shortage of workers and considered that access to suitable accommodation was the main reason. While there were variations between LGAs, the survey registered an average demand for an additional 1.3 workers per employing business across the 4WDL region.

Table 13 below lists the number of businesses registered in the 2021 ABS census by LGA, indicating that approximately 560 businesses in the region employ key workers in the 4WDL region. Based on the survey outcomes, approximately 364 businesses across the 4WDL Shires have reported a lack of housing, causing a worker shortage (averaging 1.3 per business). Therefore, it is estimated that if suitable housing was made available, an additional 473 workers may be employed across the region (and >100M economic benefit). The 2021 ABS Census reported a 2.1% unemployment rate across the 4WDL compared to 5.7% across Western Australia.

Table 13: 2021 ABS Census Businesses in the 4WDL region

LGA	No of Businesses	No of Business with Employees
Shire of Woodanilling	89	36
Shire of Williams	182	82
Shire of West Arthur	208	88
Sire of Wagin	247	123
Shire of Lake Grace	352	161
Shire of Dumbleyung	148	70
Total	1226	560

Source: Stakeholder Engagement Outcomes

The Business community survey included the question, ' What are the inhibitors for investing in housing infrastructure for your workers?'. Fifty-six comments received from the business community are detailed in Appendix C. The range of inhibitors most frequently mentioned include:

1. High cost of building
2. Lack of availability of property and building materials
3. Lack of Capital/Finance for investment

Key Worker Housing Demand – Scenario Modelling

While the 4WDL region is experiencing declining population trends, and forecasts predict this trend will continue; the decline rate is slow. Conversely, some of the LGAs within the area recorded slight growth over the past ten years. These trends may indicate that each town has the potential to sustain economic activities over time. However, addressing a shortfall in key workers and worker accommodation is vital to sustaining current activities.

Appendix C provides detailed outcomes from the Business Community and Local Government surveys undertaken. Survey outcomes and anecdotal evidence highlight the need for adequate worker accommodation and houses to support families with a yard. Comments from business owners regarding housing needs for workers in order of frequency of response included:

1. More short-term worker housing is needed/as short-stay accommodation for seasonal workers.
2. Lack of availability of any housing.
3. Attractive housing options to suit a family and couples with backyards.
4. More rental availability is needed for smaller housing units/townhouses for single workers
5. Replace or upgrade older accommodation. Modernise houses.
6. Housing people in caravan parks or in dongas is undesirable.

The housing needs analysis factors in the high percentage of single dwellings, revealing a pronounced lack of alternative housing options. Information around housing stock indicates that 96% are single dwellings, while families and grouped households represent 71% of the population. With 29% lone households and only 4% of dwelling typology including aged accommodation or grouped dwellings, it is evident that smaller housing product for the older age groups, youth, seasonal workers, and drive-in drive-out workers is inadequate. Targeted action to increase infill and grouped dwelling style development would assist in increasing supply in this respect.

Table 14: 4WDL Household Composition trends 2011 - 2021

	2011	2016	2021
Share of Population 0-14 (%)	22.02%	19.95%	19.33%
Share of Population 65+ (%)	16.55%	17.58%	22.93%
Family Households	71%	68%	68%
Lone Person Households	28%	30%	29%
Group Households	1%	2%	3%

Source: ABS Census 2021

Housing demand in the 4WDL region doesn't correlate with population growth as it may in populated areas. The demand forecast focuses on better-aligning dwelling type to household composition, as it is recognized that that increased housing choice and greater variety of dwelling types are needed to cater for varying needs of the community and key sector workers. The demand modelling encourages the development of adequate housing stock to match household types, which means an increase in the number of grouped dwellings to reflect the percentage of lone and group households. Transitioning a proportion of lone or couple/grouped households from single detached dwellings to grouped dwelling accommodation may better suit their needs and increase the available market for existing single detached dwellings.

The KWHA demand forecast applies multiple approaches and scenario analyses. Five scenarios demonstrate both Top-Down and Bottom-Up analysis detailed in the sections below. These include:

- Scenarios A, B and C provide a Top-Down analysis using aggregation methods to establish an estimated range of key worker dwelling demand as it applies to the 4WDL area.
- Scenarios D and E provide a bottom-up approach using compositional analysis based on each LGA and housing sector data.

While this may not be a perfect science, the demand assessment quantifies the number of estimated dwellings, and identifies the scale of need for key worker housing.

4WDL Worker Housing Top-Down Demand Scenarios

Scenarios A, B and C provide an estimated range of dwellings needed to address key worker housing demand in the 4WDL over the study's time frame. These figures (See Table 15) are fairly crude and generally relate to short-term (5 years) housing needs for private and public sector workers.

Scenario A - Housing demand based on household composition and dwelling typology (Quantitative)

This Scenario addresses the distribution of grouped dwellings across the 4WDL population as requiring an additional 544 units to meet current and ongoing demand. Given that the workforce represents 55% of the population, the model estimates that up to 299 additional accommodation units may be needed to support Public and Private Sector workers in the 4WDL area.

Scenario B - Housing demand established from data provided by Stakeholders (Qualitative Analysis)

Scenario B uses the qualitative data relating to the numbers of employees, employee shortages and housing for workers sourced from GROH, WACHS, the Shires, and the Business community to establish demand trends for Worker Housing and includes two assessments.

The first assessment identifies the number of additional public sector workers needed. The engagement data indicates that 24% of public sector workers are currently provided housing in the 4WDL area. Based on the demand for additional housing identified by Public Sector Agencies - the model proposes to increase the housing supply to accommodate 39% of public sector workers. The surveyed demand indicates that 46 additional dwellings are currently needed to support public sector workers in the 4WDL area.

The second assessment uses data collected through the Business survey to address the demand for private-sector workers. The survey represents 12% of the 4WDL businesses. The Business Community Survey indicates that 65% of businesses have a gap in their workforce (with an average of 1.3 additional employees needed per business surveyed). Applying ABS statistics of the number of registered businesses with employees and these survey outcomes (percentages) results in demand for an additional 307 workers across the private sector in the 4WDL, which generally translates to 134 units of accommodation. Combining these two assessments for Private and Public sector workers raises the expected demand for worker accommodation to 180 dwelling units.

Scenario C - Housing demand based on survey demand and general construction trends.- (Mixed method)

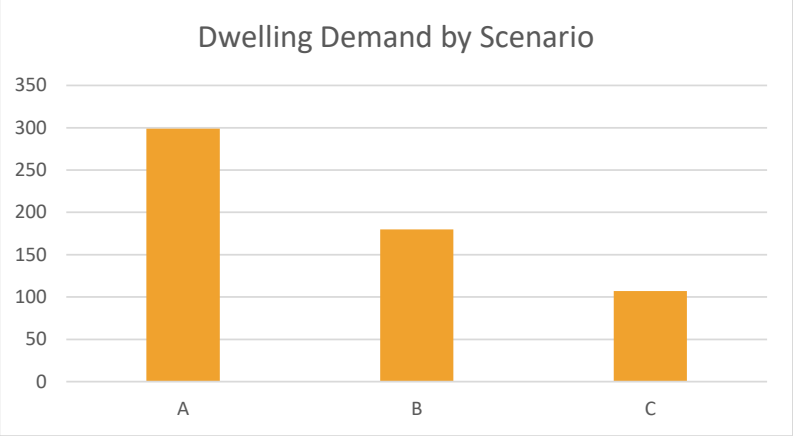
Scenario C indicates the low end of the demand based on current building trends and known demand. Housing activity across the 4WDL is generally low, with 11-13 dwellings constructed each year. From statistics showing a decline in dwelling numbers, new development appears to reflect replacement dwellings. Given that each Scenario is based on meeting current demand, this Scenario reflects five years of development to address gaps. The general understanding is that replacement trends may continue once short-term housing gaps are addressed. This Scenario does not consider if this trend is satisfactory and reflects the status quo.

Replacing dwelling stock over five years would equate to around 60 additional dwellings (12 dwellings per year), along with the 46 units of current demand identified by state agencies. While this construction trend does not only relate to key worker housing, it is a gauge for demand based on the assumption that new houses generally house workers. A percentage may be for aged accommodation or social housing; however, the percentage of these types of development has been minimal. Over a five-year time frame, Scenario C (short term) results in demand for 106 dwellings.

Table 15: 4WDL estimated dwellings demand for Workers

Scenario	4WDL Aggregate Dwelling Demand for Key Workers
A	299
B	180
C	106

Figure 3: Range of 4WDL estimated worker dwelling demand based on Top-down assessment



4WDL Worker Housing Bottom-Up Demand Scenarios

The assessment to address key worker housing needs at the LGA level combined elements of the Top Down 4WDL Key Worker Housing demand scenarios to arrive at an estimated high and conservative (low) dwelling demand (Scenario D and E, respectively). To gauge demand for key worker housing for each LGA is partly addressed by looking at the distribution of accommodation for smaller households (lone households and group households) such as grouped dwellings which may cater for the following demographics:

- Drive in, drive out workers (lock and leave)
- Seasonal workers
- A percentage of Public Sector workers
- Increase in proportion of population comprising 65 +
- Singles and group share households

The estimated dwelling demand is divided into categories for Public Sector and Private Sector key workers and Aged (Over 55's) accommodation. Social housing, Tourist Accommodation and other general housing needs have not been categorised and may be absorbed within or expanded on the estimated figures. In the first instance, demand is calculated as the estimated number of dwellings to cater to lone or grouped households recorded through the 2021 census data. This model supposes that

the movement of these groups from single to grouped dwellings would also better accommodate the demand for families.

The methodology applied to arrive at a high estimate (Scenario D) and conservative estimate (Scenario E) for each LGA was consistent, with percentage weightings being the variable between high and low scenarios. An estimated overall dwelling figure that may accommodate lone-person households provides the highest probable demand figure. The high Scenario used 50% of lone households, and the conservative estimate used 30% of lone household figures as a cap. This figure predicts the maximum additional development that may address this gap. Once the cap was established, each category was assessed as set out in Table 16 below.

Table 16: Methodology for Housing Needs Analysis by LGA

Assessment Category		Scenario D High Scenario Dwellings Demand	Scenario E Low Scenario Dwelling Demand
A	Lone households	50% Cap	30% Cap
B	Aged accommodation	Shire % proportion of 65+ of A1 (ABS census 2021)	Shire % proportion of 65+ of A1 (ABS census 2021)
C	Public Sector Worker Accommodation	60% of Public Sector Workforce (ABS 2021)	39% of Public Sector workforce (Stakeholder Questionnaire – Agency Needs)
D	Private Sector Worker accommodation	Number of Business with Employees (ABS 2021 x Survey % of business with gap in workforce= Businesses with shortage of workers) X 1.3 (additional workers needed per business based on community survey outcomes) = number of employees needed. Divide the number of employees needed by 2.0 average person per household. * Discounted this figure by 15% to cater for employees that may be part of existing households or move into single houses.	Number of Business with Employees (ABS 2021 x 50%= business with shortage of workers) X 1.3 (additional workers needed per business based on community survey outcomes) = number of employees needed . Divide the number of employees needed by 2.0 average person per household. * Discounted this figure by 15% to cater for employees that may be part of existing households or move into single houses.
E	Construction Activity	Based on ABS 2021 Building Activity and LGA Survey.	Based on ABS 2021 Building Activity and LGA Survey.

The methodology in Table 16 applies to each LGA and is collated in Table 17 below. Individual Tables for each LGA are in Appendix A. The demand for housing forecast under this analysis ranges between 20.1-32.3 dwellings per annum throughout the 4WDL area, which is two to three times higher than current building trends of 11-13 per annum.

Key Worker Housing Needs Analysis Outcomes

The multiple scenario analysis (bottom-up) provides a comparable estimated level of demand for additional key worker housing in the 4WDL area, validating the mixed-method outcomes (top-down) (See Tables 18 and 19 below). Scenarios A and D are comparable as high estimates, Scenarios B and E are comparable as conservative estimates, and Scenario C is the outlier based on current trends which don't necessarily meet the demands addressed in the analysis.

Table 18: 4WDL Scenario A, B and C - Worker housing demand (Short term)

4WDL Broad Analysis	Key Workers dwelling demand.
Scenario A	299
Scenario B	180
Scenario C	106

Source: KWHA Top Down Model

Table 19: 4WDL Scenario D and E (Conservative and High Estimated Dwelling Demand by LGA 2023- 2031)

Demand By LGA assessment	Total Additional dwellings	Total key worker dwelling demand
Scenario D (high estimated demand)	322	254
Scenario E (Conservative Estimated demand)	207	158

Source: KWHA Bottom-Up Model

The composite analysis in Scenarios D and E provides a breakdown of the demand between Public Sector, Private sector workers and over 55's. With regard to this level of detail, and validity provided by the top down assessment, Scenarios D and E figures are adopted as the estimated demand for the purpose of the KWHA.

The aggregate figures for the 4WDL Region are combined in Table 19 above. These figures are detailed in Appendix A for each LGA, presenting information about the demand spread across the six local government areas in the 4WDL area. The overall estimated figures reveal that the scale of demand for the 4WDL region sits between 158 (Low) – 254(High) key worker dwellings over the next decade. The high Scenario (D) provides direction for estimated and ongoing land supply requirements to meet dwelling demand over the coming decade, which is at a scale 2.5 times greater than current building activity. The low Scenario (E) guides immediate and short-term key worker housing needs.

4WDL Regional Housing Economic Analysis

Econisis prepared the 4WDL Regional Housing Economic Analysis included in Appendix D. This report collates the technical inputs of Econisis into the wider analysis. The focus of the Econisis report is on identifying local government led housing delivery, ownership and management models across Australia and testing key feasibility elements of each of the models based on their potential application to the major townships in the region.

This full report included in Appendix D is comprised of the following key sections and summarised below:

- **INTRODUCTION –** outline of the content, structure and purpose of the report.
- **REVIEW OF REGIONAL HOUSING MODELS –** summary of different regional housing models across Australia, based on case study review and profiling. Includes recommendations on potential model attributes for consideration and application.
- **MARKET FEASIBILITY ASSESSMENT –** summary of preliminary assessments of private market development feasibility drivers and challenges in major townships across the region.
- **INVESTMENT AND TENURE MODEL REVIEW** – summary of analysis of different investment and tenure models for potential implementation with different cohorts
- **OPPORTUNITY COST SCENARIOS** – summary of preliminary assessment of not delivering the necessary housing across the region.
- **CONCLUSIONS** – outline of conclusions and recommendations for consideration by the client.

Regional Housing Models

Key worker housing supply and affordability challenges are increasingly common across regional areas in Australia. The combination of small labour markets, flat and declining populations, comparative low median house prices and development feasibility issues create an environment in which coordinated government intervention is required.

While State and national governments are best placed to provide financial support to incentivise and address fiscal shortfalls in key worker housing supply and development, Local Governments have the potential to play a critical implementation role in directly facilitating new key worker housing projects. This includes working independently or in collaboration with State Government and community housing organisations.

Local Government responses and actions in recent years have been varied, ranging from providing land supply and planning support, investment and demographic information provision and infrastructure and land development funding incentives and waivers. However, the most direct role of councils in other States has been through the direct development of key worker housing. This includes through the provision/gifting of residential land to private developers and community housing organisations for agreed development for key worker and affordable housing, as well as direct development and owners of housing under affordable rental models.

A challenge with direct housing ownership for regional local governments however has been the issue of negative equity – with land and construction development costs commonly exceeding market prices in small regional markets, leading to Council budgets and balance sheets being impacted by asset write downs. As such, State and national governments must play a critical role of removing this fiscal burden from local government, providing bridging grants and finance to allow Councils to play a direct role in key worker housing provision in a targeted and responsive manner.

Market Feasibility Assessment

While private markets are the preferred method in Australia and most Western countries, for the supply of goods and services to the population, such markets are subject to failure. "Market failure" represents a situation in which, for a diverse range of reasons, the private sector is unable to meet the needs and requirements of a community. Issues of market depth/liquidity, capital intensity and feasibility are common factors in situations where markets fail.

Regional communities such as those in "4WDL" are more susceptible to issues of market failure, due to their comparative remoteness, small size/lack of demand critical mass and labour force constraints. This is particularly the case for housing, where the cost of construction often exceeds the market median price of housing.

Econisis has tested the feasibility of development in the region across each of the major towns in the study area using a static residual value approach. A static residual value is a preliminary approach to feasibility. It compares the direct and indirect costs associated with the construction of a dwelling with the notional market value of that dwelling. Any value that is residual from this comparison represents the maximum value of the land that would be necessary to facilitate a positive feasibility outcome.

Econisis has analysed the feasibility of two different dwelling types:

- a 3 bedroom + study, 2 bathroom, 2 car detached one storey brick veneer house with medium quality finishes.
- an 8 unit apartment, 2-3 storey apartment building with ground floor parking, 1/2 units and no elevator.

This preliminary feasibility analysis confirms that general dwelling construction across the 4WDL region generates a negative residual ranging from $50,000 to $200,000 for single dwellings and up to $250,000 for multi storey dwellings. While multi-story dwellings are not suggested to be a form a development that will apply to the 4WDL region in the foreseeable future, the assessment has been undertaken consider the impact of different built form/development intensity combinations on feasibility of traditional housing development. This negative residual value confirms that the private market is unlikely to respond to the overarching needs for key worker accommodation in the region's major towns in the absence of incentives and support.

It also highlights that the development of housing by local governments for key workers in the region would likely require the gifting of land as part of any construction deal, as well financial subsidy, to reduce the impact on Councils of the write down in asset values upon completion.

Investment and Tenure Model Review

To ensure that housing is affordable for key workers, there are a number of models of housing to consider, including:

- Alternative housing models
- Affordable design
- Restricted or affordable purchase
- Community Land Trust
- Shared equity
- Build to rent
- Rent to buy

- Tiny homes/relocatable housing
- Social housing

Small housing product was identified as a potential solution to the delivery of housing product in the region. Small housing seeks to reduce the footprint and size of the dwelling constructed on a lot to make the dwelling more fit for purpose and efficient, reducing excess and underutilised space. Econisis has run the same preliminary feasibility analysis model used in section 3.0 (Appendix D) to provide construction cost estimates for a variety of smaller product types.

Table 20 Construction Costs of Small Housing Product

Indicators	3x2x2	2x2x1	2x1x1	1x1x1	Three 2x2x1	2x1x1+1x1x1
Lot Size	**450**	**400**	**350**	**300**	**1,000**	**450**
Baseline Dwelling Cost	**$217,840**	**$160,320**	**$153,280**	**$137,440**	**$459,840**	**$245,760**
Site Servicing Costs and Fees	**$32,665**	**$32,665**	**$32,665**	**$32,665**	**$65,329**	**$32,665**
Wheatbelt Weighting	**15%**					
Stamp Duty, Legals, Fees	**5%**					
Building Contingencies	**5%**					
Adjusted Costs	**$313,131**	**$241,231**	**$232,431**	**$212,631**	**$656,461**	**$348,031**

Overall construction costs are lower in all circumstances on a per dwelling perspective when compared to the original 3 x 2 x 2 assessment. This appears to reflect a combination of both as reduction in the number of car spaces (reducing the land area required for the dwelling as well as the overall footprint of the dwelling) and the reduction in the size of the dwellings themselves.

A number of potential partnership and delivery models existing for consideration in the delivery of key worker housing in the region. Examples include:

- Local Government Led
- Special Purpose Vehicle
- Community Housing Organisation
- Communities/GROH Led

Opportunity Cost Scenarios

The focus of housing need in the study area on key and public and private sector worker housing supports the use of "worker productivity" values in monetising the opportunity cost associated with the non-delivery of the housing needed in the 4WDL communities. This reflects the fact that without the required housing, the economic and social activity associated with the accommodated workers will not be realised in the region.

The opportunity cost of not investing in key worker housing is potentially significant, ranging from a loss of economic contribution of $126,000 to $265,000 per worker per year. This opportunity cost, when considered over a 20 year period, represents a significant benefit to the State economy and local communities, and is likely more than sufficient to return a positive economic return on investment to funding partners.

Land Supply and Development Potential

The study process included a broad investigation into how current housing stock is being utilised and identifying areas of under-utilisation. The KWHA Survey outcomes and Department of Planning Land and Heritage (DPLH) data provide an overview of vacant and suitably zoned land that may accommodate key worker housing.

Dwelling Occupancy

In 2021 the total number of dwellings registered with ABS Census in the 4WDL was 3068. The aggregate statistics indicate that 80% of dwellings are occupied. The Shire of Lake Grace has a high percentage of unoccupied dwellings at 30% due to a larger number of unoccupied dwellings in the townsites of Newdegate and Lake King. The Shire of West Arthur has the lowest rate of unoccupied dwellings at 12%, the Shire of Wagin at 15%, and the Shire Dumbleyung at 19%. The Shire of Woodanilling has 23% unoccupied dwellings based on the 2021 ABS data.

Table 21 - Occupied and Unoccupied Dwellings by LGA in 2021

Indicators	Dumbleyung (LGA)	Lake Grace (LGA)	Wagin (LGA)	West Arthur (LGA)	Williams (LGA)	Woodanilling (LGA)	4WDL area
Population	681	1265	1761	773	1021	448	5949
Total Dwellings	339	743	886	376	503	221	3068
Household size	2.3	2.4	2.2	2.2	2.4	2.1	2.3
Occupied	81%	70%	85%	88%	80%	77%	80%
Unoccupied	19%	30%	15%	12%	20%	23%	20%

Source: ABS Census 2021

To complement this report, the 4WDL LGA's undertook a concurrent community engagement process via a pre-prepared survey to seek feedback on possible causes of the 'unoccupied dwellings' percentage included in the ABS statistics. This survey process was complemented by local intelligence gathering on rural and townsite properties that could have been considered 'unoccupied' at the date of the census. These investigations revealed a number of key findings across the 4WDL region summarised by the following:-

1. Prima facie based on the survey feedback received, there appears to be a reasonably large number of abandoned properties located on farming properties due to lengthy periods of farm enterprise consolidation and mechanisation with expanded property acquisitions (older dwellings let go, not required).
2. Some farm enterprises have retained on-farm secondary housing for retired family members (& seasonal workers) who often return to the farm (usually from coastal locations) during busy periods to provide general work support to younger on-farm family members i.e. during seeding & harvesting periods.
3. Due to new Work Health & Safety Act 2020 obligations, some farm enterprises have intentionally opted to leave existing residential properties vacant rather than incur the risk of tenants (& families) being exposed to potential hazard and injury on an operational farming site.
4. There are significantly less abandoned properties located in the main townsites. There are a handful of properties in some towns that are used on an occasional basis i.e. holiday & recreational dwellings owned by non-Shire (outside) residents.
5. In one particular town, a key State Government agency had a site in which there were 6/7 vacant and abandoned (potentially uninhabitable) housing properties.

Based on these investigations, it is reasonable to conclude that a significant percentage of the ABS data reflecting 'Unoccupied Dwellings' is mostly attributable to abandoned farming properties, with some semi-vacant residences in townsites under external ownership (not principal place of residence).

The State Infrastructure Strategy Housing Chapter addresses the ageing of housing stock associated specifically with social housing, however, some of the considerations may be relevant to regional housing stock which states '*WA's social housing asset base is ageing, inefficient and often misaligned with community need. A substantial proportion of state-owned housing stock is approaching end-of-life, with more than 20% over 40 years old. In addition, 52% of metropolitan and 46% of regional housing stock is 20 to 40 years old. Without substantial ongoing investment and maintenance, operating costs will continue to increase, and assets will be lost at a rate greater than can be replaced*.'

Should housing stock be revealed through the review as suitable for refurbishment and use, the following financial incentives may be considered:

- Local government incentives (e.g. rate relief, fast-track approval process etc.)
- Adopt empty homes incentives (e.g. through rates concession) to encourage investors to offer housing to workers.
- Economic development/planning incentives for investors to undertake refurb works for accommodation that will house target/priority workers.
- Targeted 'worker housing development grants' for priority locations to support the viability of projects to redevelop and/or develop new housing.
- Strategic approach to drive re-purposing or sale of vacant Department of Communities housing stock.

Vacant Residential Land By LGA

Each Local Government in the 4WDL area provided an estimate of the number of Vacant Residential and Commercial lots and categorised these as serviced and unserviced through the LGA survey (Appendix C) (See Table 17).

Table 22: LGA Survey Outcomes of Vacant Residential and Commercial Land

Local Government	Unserviced Residential	Serviced Residential	Unserviced Commercial	Serviced Commercial
Shire Williams	43	36	0	5
Shire Wagin	0	6	0	0
Shire of Dumbleyung	0	31	0	12
Shire of Lake Grace	7	4	0	1
Shire of Woodanilling	0	45	0	2
Shire of West Arthur	9	35	0	10
Total	59	157	0	30

Source: LGA Survey October 2022

Data provided by DPLH (See Table 23 below) recognises the number of vacant residential lots according to their records. This data does not differentiate between serviced and unserviced land. However, the total numbers align with the survey data in Table 22 and provide a starting point to identify the capacity for vacant and underutilised land with development potential for new builds.

Table 23: DPLH Vacant Residential Lots Data

Local Government Area	Vacant Residential Lots
Dumbleyung	24
Lake Grace	14
Wagin	87
West Arthur	28
Williams	48
Woodanilling	35
Grand Total	236

Source: KWHA LGA Survey

Serviced Residential land provides greater potential for grouped dwelling development depending on the lot size and residential density. Table 24 below addresses the demand forecasted for additional key worker housing and the currently vacant and unserviced Residential lots within each local government in the 4WDL area.

Table 24: LGA vacant lots by LGA and DPLH and Forecast key worker housing demand

	Scenario D - High		Scenario E - Low		Vacant and Underutilised Land		
LGA	Total dwellings Aged and key worker	Total Key Worker housing	Total dwellings	Total Key Worker housing	Vacant Residential Lots DPLH	Serviced Residential Land LGA survey	Unserviced Residential Land
Shire of Wagin	90	61	66	42	87	6	0
Shire of Dumbleyung	41	33	32	28	24	31	0
Shire of West Arthur	41	31	23	18	28	35	9
Shire of Williams	54	48	34	26	48	36	43
Shire of Woodanilling	36	30	19	16	35	45	0
Shire of Lake Grace	62	53	35	30	14	4	7
4WDL statistics	324	256	209	160	236	157	59

Source: Stakeholder Outcomes Report and DPLH vacant lot data

A comparison of the data reveals an adequate supply of vacant serviced residential land to address short-term key worker housing needs (i.e. low estimate for key worker housing is 160 dwellings overall with 157 vacant serviced lots available). Figures also suggest that the capacity of vacant land may support the longer-term housing need; however, servicing, accessing and acquiring land requires further exploration.

Development Potential

The following discussion provides a guide to identifying potential grouped dwelling development sites based on densities. The Residential Densities in 4WDL towns range from R2 through to R30. The minimum lot area required for development of single or grouped dwellings is specified in the *Residential Planning Codes Volume 1:Table 1* summarised in Table 25 below.

Table 25: Extract from Table 1: General site requirement for all single house(s) and Grouped dwellings and multiple dwellings in areas coded less than R40.

R- Code	Dwelling type	Minimum site area per dwelling m^2	Minimum Lot Area/rear battleaxe m^2	Minimum Frontage m
R2	Single house or grouped dwelling	Min 5000		50
R10	Single house or grouped dwelling	Min 875 Av 1000	925	20
	Multiple dwelling	1000		
R12.5	Single house or grouped dwelling	Min 700 Av 800	762.5	17
	Multiple dwelling	800		
R20	Single house or grouped dwelling	Min 350 Av 450	450	10
	Multiple dwelling	450		
R30	Single house or grouped dwelling	Min 260 Av 300	410	-
	Multiple dwelling	300		

Source:WAPC Residential Planning Codes

Table 25 indicates that lower densities between R2 – R12.5 may be limited to developing single dwellings. Some limited additional development may be possible by amalgamating two lots to provide greater overall site area and dimensions. The best advantage for grouped dwelling development or infill brownfield subdivision is on vacant, serviced land zoned Residential R30.

Provision of key worker accommodation may still be possible within the confines of low density land lacking reticulated servicing. Unserviced residential land would usually support the development of a single dwelling and associated ancillary accommodation with on-site servicing. A compact 2x2 or 3x1 dwelling with an ancillary dwelling of 2x1 or 1x1, detached or attached, is possible. Locating the single and ancillary dwelling on-site in an appropriate location to address the streetscape and providing access for the construction of additional dwellings should be considered in siting and design. This may provide an opportunity for additional grouped dwelling(s) on the site in the future should reticulated or alternative servicing become available and R-Code density increased.

The path of least resistance in meeting key worker housing needs is through development on lots with servicing and density available. Considering the opportunity for extending services or using alternative servicing solutions may also increase the development potential of vacant unserviced residential land. While aggregate figures suggest an adequate supply of suitably z oned land exists to meet longer-term housing needs, there may be limiting factors or locations to achieve the capacity. Given potential constraints in accessing suitably zoned vacant land means that the accommodation of key worker housing demand will likely result in a mix of the following land development methods:

1. Unoccupied dwellings (refurbish and rent or redevelop) (Short term)
2. Retrofit commercial/community buildings for seasonal workers/ small unit accommodation.
3. Vacant serviced residential land (Short- medium term)
4. Infill/Brownfield development/ density/ancillary accommodation (Short, medium Term)
5. Servicing option for unserviced zoned land (Medium-term)
6. Greenfield Subdivision (Less Likely Longer term)

Appendix A provides detail of land availability for each local government and in summary, the LGA profiles resolve that:

- The Shire of Wagin has limited serviced Residential land to support development, however, may have a range of unserviced sites with the potential to accommodate the demand for

housing. The longer-term land supply focus would be improving the servicing of lots and addressing options for R30 density development.

- The Shire of Dumbleyung has enough serviced Residential land to meet the current and short-term key worker housing demand. However, an additional supply of serviced residential land will be needed to meet longer term to accommodate 10 -15 dwellings over the next decade.
- The Shire of West Arthur may have enough land to accommodate short-term housing needs in the Shire. Some additional servicing of land and increased density codes under the local planning scheme may help to facilitate the diversity of housing stock to meet key worker housing needs in the longer term.
- The Shire of Williams has a range of densities which is beneficial in providing for grouped dwellings. The number of vacant lots available, both serviced and unserviced, should cater for the key worker and total dwelling demand. Encouraging additional servicing to facilitate group dwellings development and infill R30 density subdivisions may improve access to land for key workers and over 55's housing.
- The Shire of Woodnilling land supply adequately caters for forecast dwelling demand.
- The Shire of Lake Grace has limited availability of lots to cater for the short-term housing demand and will need to release or create additional Residential Lots to meet future land supply. The smaller towns have capacity. However, the town of Lake Grace is the prime location for key workers and is recommended to be the focus for creating additional serviced residential lots with R30 density.

Next Steps – Housing Plans

The KWHA recommends completing a 'Housing Plan - Key Worker Housing Site selection' for each LGA to identify potential development sites including infrastructure design solutions that maximises use of the available footprint for optimum key worker housing development. The Housing Plan is an opportunity and constraints exercise using a series of map layers, including zoning and density, tenure, lot sizes, bushfire risk, vegetation, topography and servicing. The Housing Plan may identify potential grouped dwelling development sites with one or more of the following criteria:

- Vacant serviced Residential Lots with R20/R30 density.
- Residential lots with an area that may yield two or more grouped dwellings under current density.
- Adjacent vacant lots that may be amalgamated under current zoning to support three or more grouped dwellings.
- Serviced vacant landholdings that maybe earmarked for recoding or rezoning to facilitate R30 density development.
- Unserviced lots with R20/30 density.
- State or Local Government owned vacant lots.

Housing plans provide a connector between the KWHA, and the Wheatbelt Development Commission (WDC) Toolkit. The WDC Toolkit presents servicing and development feasibility associated with specific case study sites. The feasibility analysis undertaken for these sites may inform the development of similar sites in other areas of the Wheatbelt. The 4WDL LGAs may find assistance in understanding potential costs associated with land development processes.

The KWHA suggests the following actions are undertaken to unlock opportunities within suitably zoned land to meet the land supply demands for the provision of key worker housing:

- Housing Plans – Key Worker housing site selection incorporating desired housing infrastructure development.
- Consider utilising alternative Infrastructure solutions (WDC Toolbox). Apply WDC Toolbox case study examples and infrastructure solutions to potential sites.
- Review Residential Densities under the Local Planning Scheme. The housing plan should provide adequate justification for upcoding of areas to accommodate infill development and subdivision.

Conclusion

The 4WDL KWHA resolves that grouped dwelling development utilising small housing product provide a cost effective solution for introducing housing stock suitable for the key worker households. Due to widespread market failure conditions across the 4WDL region, supplementary State Government funding support will be required to ensure housing development. Public Sector housing provision is relatively low in the 4WDL area, with increasing pressure on Local government to provide rental accommodation to meet key worker accommodation demand in all sectors. Several potential partnership and delivery models exist for consideration in the delivery of key worker housing in the region, which include Local Government Led (LGL), Special Purpose Vehicle (SPV), Community Housing Organisation (CHO) and Communities/GROH Led.

The analysis indicates that existing vacant residential land has the capacity to accommodate the majority of key worker housing demand subject to further site analysis. Following site identification, detailed design and costings will need to be considered to prioritise sites for development. The following steps should be considered in the direct delivery of regional housing solutions by Local government in 4WDL:

(A) Local Housing Plans and Preliminary Business Case

- **Local Housing Plans incorporating specific development sites –** 4WDL Councils should seek to identify specific sites for consideration of accommodating key worker development in the six key townsites. These sites should ideally be Council owned (or available to purchase), already serviced and be of a size and scale to accommodate one or more smaller dwellings.
- **Development of housing investment concepts** – small housing concepts for the shortlisted sites should then be developed. These should ensure construction costs are managed and dwelling numbers and product mix are as efficient as possible. The investment concepts to include consideration of the size and number of dwellings, the construction format, land/site servicing costs and estimated construction costs.
- **Prepare a Preliminary Business Case** - define the potential housing investment opportunities to include:
    - Cost Benefit analysis of shortlisted housing investment options.
    - High level financial analysis examining the housing costs (and associated assumptions) and ongoing operational and financial cost impacts on the Councils (and private investors).
    - State Government preliminary business case to be established in support of proposed housing development program reflecting the need for grant funding intervention to support final development.

(B) Housing Product and EOI for Delivery Partners - Pending State Government consideration of program funding request, the following steps are then proposed:

- **Formal costings** – the approved concepts should be the subject of formal costings by a Quantity Surveyor.
- **EOI for development/delivery partners** – development of a brief Expression of Interest document for use in promoting the housing opportunity and seeking interest from potential development and delivery partners. No formal commitment is required at this stage though a preferred partner may be selected.
- **Finalise concept and costing with partner inputs** – there is also the option at this stage for concepts to be refined based on partner inputs.

- **Establishment of delivery model and approach** – establish the preferred approach for delivery. This may entail establishment of a special purpose vehicle or engagement with the CHO partner. At this time the relevant site(s) should be secured (if not already) for the construction process.
- **Construction of housing** – engagement of the construction partner to construct the houses.
- **Retention/Vesting of House Tenure** – vesting of the dwelling and site with the SPV or CHO or retention of the product by the relevant Local Government.

Appendix A Local Government Area Profiles

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Appendix A Local Government Area Profiles

Shire of Dumbleyung Housing Profile

The Shire of Dumbleyung currently supports approximately 11% of the 4WDL area population. The Shire of Dumbleyung comprises three townsites with an overall population of 681, according to the ABS 2021 census data. The Shire population has increased in the past ten years by 76 people. The proportion of people living in towns has also increased and now comprises 52% of the population. Table 1 below indicates a reduction in total dwellings. This information may be due to some ABS classification changes over time or actual activity and may need further study.

Table 1: Shire of Dumbleyung Population and Total Dwellings Trends 2011- 2021

Shire of Dumbleyung	2011	2016	2021	Trends
Population	605	671	681	76
Total Dwellings	376	386	339	-37
Household size	2.3	2.2	2.3	
Dumbleyung Townsite				
Population	198	200	299	101
Total Dwellings	133	139	142	9
Household size	2	1.9	2	0
Kukerin Townsite				
Population	No Data	66	55	-11
Total Dwellings	No Data	38	23	-15
Household size	No Data	2.1	2.6	0.5
Moulyanning Townsite			No Data	
Townsite population		266	354	88
Remaining Population		405	327	-78

Source: ABS Census Data

The ABS Statistics 2021 recorded 339 dwellings in the Shire of Dumbleyung, and the rates records have 370 dwellings. According to the Shire records, 13 building licences for dwellings have been approved in townsite areas over the past ten years. These statistics are verified by ABS statistics for new houses, which identify an average construction of 1 dwelling per annum in the past five years.

Table 2 shows that Band D of the WA Tomorrow Statistics correlates closely with the historical population trends for the 4WDL area, forecasting a stable population base with a forecast decline of around 58 people over the next decade.

Table 2: Shire of Dumbleyung Population forecast (WA Tomorrow)

WAPC Scenario Band D	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Shire of Dumbleyung	695	691	688	684	680	671	663	654	646	637

Source: WA Tomorrow

Table 3 reveals that the percentage of the population over 65 has experienced a slight decline in the past decade, however, the median age trend is stable in the Shire of Dumbleyung. The 0-14 age group has remained stable overall for the past ten years across the LGA; however Kukerin townsite, which has a lower median age group than the Dumbleyung townsite, has experienced growth in family households, and the 0-14 age group. Household composition trends show a decline in family households and also in lone households and an increase in group households.

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Table 3: Shire of Dumbleyung Age Profile, Household Composition and Dwelling Type (Trends 2011- 2021)

Year	2011		2016			2021			Trends		
D - Dumbleyung K - Kukerin	D (LGA)	D (UCL)	D (LGA)	D (UCL)	K (UCL)	D (LGA)	D (UCL)	K (UCL)	LGA	D UCL	K UCL
Average Household Size	2.3	2	2.2	1.9	2.1	2.3	2	2.6	2		
(%)Share of Population 0-14	20.90%	11.00%	19.20%	11.80%	16.67%	20.20%	18.30%	38.18%	-0.70%	7.30%	N/A
(%)Share of Population 65+	22.10%	27.00%	17.20%	27.90%	4.55%	19.70%	25.10%	18.20%	-2.40%	-1.90%	N/A
Family Households	176	61	179	62	12	162	53	14	-14	-126	2
Lone Person Households	79	36	82	40	12	71	44	6	-8	-38	-6
Group Households	3	0	5	0	0	9	3	0	6	-2	0
Occupied	258	100	262	100	21	235	100	16	-23	-162	-5
Unoccupied	112	32	83	27	7	56	22	3	-56	-61	-4
Separate house	245	93	259	97	21	244	96	16	-1	-163	-5
townhouse etc	7	3	0	0	0	8	8	0	1	8	0
Flat or apartment	0	0	0	0	0	0	0	0	0	0	0
Other dwelling	6	4	3	3	0	0	0	0	-6	-3	0

Source: ABS Census Data

Occupancy of dwellings is marginally higher in the townsites of Dumbleyung and Kukerin than the rural areas, indicating that overall 19% of dwellings are unoccupied in the Shire. Sixty-seven percent of houses are owned with 33% of dwellings are rented or other tenures.

Table 4: 2021 Shire of Dumbleyung Dwellings Tenure and Occupancy Trends by LGA and Townsites

Indicators	Dumbleyung (LGA)	Dumbleyung (UCL)	Kukerin (UCL)
Population	681	299	35
Total Dwellings	339	142	23
Occupied	81%	82%	84%
Unoccupied	19%	18%	16%
Owned outright	50%	40%	50%
Owned with a mortgage	17%	18%	0%
Rented	11%	15%	0%
Rented	11%	15%	25%
Other tenure type	9%	9%	25%
Tenure type not stated	2%	3%	0%

Source: ABS Census Data

State and Local Government employees comprise 12% of the Shire of Dumbleyung workforce, registering 48 staff in 2021 (ABS Census 2021) (See Tables 5 and 6 below). Engagement outcomes included in Table 7 below indicate that GROH currently provides seven dwellings, five are owned and two are leased, and do not propose the development of additional dwellings in the next four years. WACHS provide two owned dwellings for staff. WACHS haven't any development plans; however, ideally, they recommend an additional 3 (1x1) tiny homes. The Shire of Dumbleyung currently rent four houses to Shire staff and 19 houses to the private and public sector market. The Shire has identified the need for ten additional dwellings for Shire Staff (Stakeholder Questionnaire 2022).

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Table 5: Shire of Dumbleyung % State and Local Public Sector Workforce

LGA	Total Labour Force 2021	State Government Employees	Local Government Employees	% State and Local public sector of Workforce
Dumbleyung	403	28	20	12%

Source: ABS Census Data

Table 6: Shire of Dumbleyung Public Sector Workforce

Indictors	Dumbleyung
Sum of State/Territory Government	28
Sum of Local Government	20
Total State and Local Public Sector	48
Population	681
Public Workers per 1,000 Pop	70.5
Public Worker Oversupply(-)/Need (+)	-6.1

Source: ABS Census Data

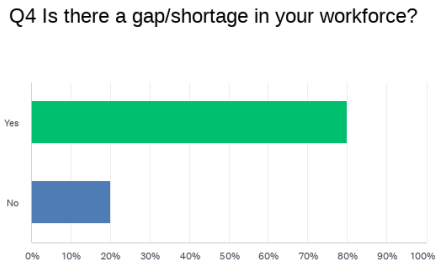
According to the engagement outcomes (Table 7 below), 13 houses service the public sector staff of the Shire of Dumbleyung, which means 27 % of Public Sector workers. The questionnaire responses for the 4 WDL area generally indicate that there will not be a demand for increasing the Workforce in the public sector; however, to retain and attract replacement workers will need improved access to better standard accommodation. In this case, providing additional accommodation would result in 54% of the public sector workers being housed in the Shire of Dumbleyung.

Table 7: Stakeholder Questionnaire Outcomes- Public Sector Housing for Workers

Agency	Houses rented to Workers	No. of Workers	Worker Shortage	Rented to market	Forecast Housing Need
Shire of Dumbleyung	4	26	4	19	10
GROH	7				0
WACHS	2	31	0		3
Total	13				13

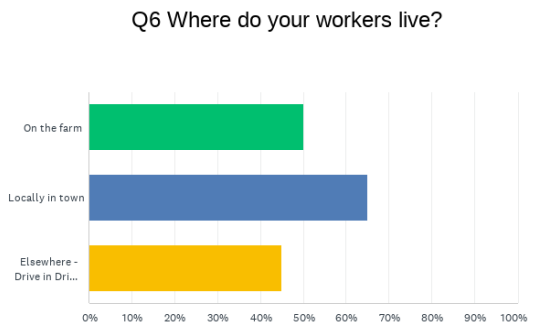
Source: Stakeholder Outcomes Report

Figure 1: Shire of Dumbleyung Business Community Survey Response – Worker Shortage



Source: Stakeholder Outcomes Report

Figure 2: Shire of Dumbleyung Business Community Survey Response – Worker Living Location



Source: Stakeholder Outcomes Report

Shire of Dumbleyung has around 148 businesses, according to the register of Businesses, with 70 businesses actively employing staff. The Community survey identified a need for an average gap of 1.3 workers for each business that needed more workers (80% of businesses), which equates to 56 additional workers required to cover the worker shortage.

According to the survey responses shown in Figure 2 above, The Shire of Dumbleyung is representative of the trends across the 4WDL area, where there is an equal spread of employees who live on a farm, in town, and access work through drive-in drive-out.

Housing Need Assessment

The 4WDL Worker Housing Bottom-Up Demand Scenarios in the 4WDL Key Worker Housing Analysis indicate demand for Key workers and over 55's housing and is presented in Tables 8 and 9 Below. Scenario D provides figures to support the provision of land supply over the next decade. Scenario E indicates the number of dwellings estimated to be needed currently and in the short term (5 years) to adequately support key workers in the Shire of Dumbleyung.

Table 8: Scenario D Shire of Dumbleyung Estimated Dwelling Demand 2023-2031

Estimated Dwelling Demand - Shire of Dumbleyung (High)				
Housing Sector	Current need	Short term 2024- 2026	Medium term 2026-2031	Total Additional Housing
Public Sector Worker Housing	8	6	2	16
Private Sector Worker Housing	7	7	3	17
Over 55's	3	3	2	8
Total Demand	18	16	5	41

Table 9: Scenario E Estimated Dwelling Demand - Shire of Dumbleyung

Estimated Dwelling Demand - Shire of Dumbleyung (Conservative)				
Housing Sector	Current need	Short term 2024- 2026	Medium term 2026-2031	Total Additional Housing
Public Sector Worker Housing	8	3	2	13
Private Sector Worker Housing	6	6	3	15
Over 55's	2	2		4
Total Demand	16	11	3	32

The total number of new dwellings recorded in the Shire of Dumbleyung townsite areas from 2012-2021 was 13, indicating an average construction of 1.3 dwellings per year. The estimated dwelling demand for the Shire of Dumbleyung to cater for Public and Private sector key workers and over 55's in short to medium term ranges between 32 (Low) – 41 (High). While the recommendation is for most dwellings to provide for a gap in accommodation to be constructed in the next five years, the overall recommendation for dwelling construction ranges between 3-4 new dwellings per annum over the ten years to cater for a shortage in worker housing and provide for ongoing replacement stock.

With 31 vacant serviced residential lots in the townsite of Dumbleyung and other vacant lots in Kukerin, it may cater for demand without considering land release. However, further investigation of land tenure may indicate some constraints; therefore, a small land release for residential housing may be required.

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Shire of Lake Grace Housing Profile

The Shire of Lake Grace currently supports approximately 21% of the 4WDL area population, with 1265 people, according to the 2021 ABS census data. The Shire of Lake Grace comprises five townsites with an overall townsite population of 768, according to the ABS 2021 census data. Lake Grace is the largest town site with 525 people. Newdegate has a population of 159, and Lake King townsite has a population of 84. There is no data for the smaller townsites of Varley and Pingaring.

The Shire population has decreased in the past ten years by 85 people, according to the ABS census data. However, the Lake Grace town site has seen a small increase in population. There has been an increase in the proportion of people living in towns since 2011, comprising 61% of the population. Table 1 below indicates a reduction in total dwellings. This information may be due to some ABS classification changes over time or actual activity and may need further study.

Table 1: Shire of Lake Grace Population and Total Dwellings Trends 2011- 2021

Shire of Lake Grace	2011	2016	2021	Trends
Population	1360	1268	1265	-95
Total Dwellings	754	745	743	-11
Household size	2.3	2.3	2.4	0.1
Lake Grace Townsite				
Population	499	500	525	26
Total Dwellings	249	261	278	
Household size	2.3	2.2	2.3	
Newdagate Townsite				
Population	No Data	159	159	
Total Dwellings		98	116	
Household size		2	2.1	
Lake King Townsite				
Population	No Data	95	84	
Total Dwellings		56	64	
Household size		2	2.5	
Varley Townsite	No data			
Pingaring Townsite	No data			
Total Townsite		754	768	14
Remaining Population		514	497	-17

Source: ABS Census Data

The 2021 ABS Statistics recorded 743 dwellings in the Shire of Lake Grace, while the Shire records indicate 963 dwellings. According to the Shire records, 21 building licences for dwellings have been approved in townsite areas over the past ten years. These statistics are slightly lower than ABS statistics which identify an average construction of 3 dwellings per annum in the past five years.

Table 2 shows that Band D of the WA Tomorrow Statistics forecasts a decline in population over the next decade of 134 persons, an average of thirteen people per year.

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Table 2: Shire of Lake Grace Population forecast (WA Tomorrow)

LGA	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Lake Grace	1,295	1,290	1,285	1,280	1,275	1,252	1,228	1,205	1,183	1,161

Source: WA Tomorrow

The median age trend is fairly stable in the Shire of Lake Grace, with the population over 65 increasing and now representing 16.5% of the total population. The 0-14 age group slightly decreased overall across the LGA for the past ten years. (See Table 3) Household composition trends reveal a decline in the number of family households and lone households over the past ten years.

Table 3: Shire of Lake Grace Age Profile, Household Composition and Dwelling Type (Trends 2011- 2021)

	2011		2016				2021			
Location	LG (LGA)	LG (UCL)	LG (LGA)	LG (Suburb)	LK (Suburb	N (UCL)	LG (LGA)	LG (UCL)	LK (UCL)	N(UCL)
Population	1360	499	1268	500	95	159	1265	525	84	159
Share of Population 0-14 (%)	21.30%	20.90%	22.40%	21.70%	20.00%	26.35%	19.70%	20.50%	22.62%	17.61%
Share of Population 65+ (%)	11.00%	15.60%	14.20%	17.00%	13.68%	13.17%	16.50%	19.00%	3.57%	17.90%
Family Households	365	135	300	111	19	35	320	115	19	35
Lone Person Households	168	72	161	80	15	28	133	63	10	22
Group Households	7	3	14	3	4	0	8	6	0	0
Occupied	541	208	467	195	31	67	469	185	27	63
Unoccupied	181	34	219	45	26	34	204	73	28	33
Separate house	494	180	434	173	31	61	438	166	26	58
townhouse etc	31	24	12	15	0	0	18	13	0	0
Flat or apartment	4	0	0	0	0	0	3	3	1	0
Other dwelling	9	4	10	7	0	0	4	0	0	0

Source: ABS Census Data

The occupancy of dwelling figures is lower in Lake Grace than in the rest of the 4WDL area. Newdegate and Lake King have 66% and 46% low occupancy rates, respectively. Overall, the Shire shows 70% unoccupied dwellings revealing that the low occupancy levels may be associated with towns rather than other areas. This information may provide a context for further investigation into declining and unoccupied dwellings.

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Table 4: 2021 Shire of Lake Grace Dwellings Tenure and Occupancy Trends by LGA and Townsites

Indicators	Lake Grace (LGA)	Lake Grace (UCL)	Lake King (UCL)	Newdegate (UCL)
Median Age	1265	38	44	43
Total Dwellings	743	278	64	116
Occupied	70%	72%	49%	66%
Unoccupied	30%	28%	51%	34%
Owned outright	45%	29%	46%	46%
Owned with a mortgage	19%	29%	14%	29%
Rented	0%	0%	0%	0%
Rented	21%	30%	21%	19%
Other tenure type	12%	7%	18%	6%
Tenure type not stated	3%	4%	0%	0%

Source: ABS Census Data

State and Local Government employees comprise 13% of the Shire of Lake Grace workforce, registering 96 staff in 2021 (See Table 5).

Table 5: Shire of Lake Grace % State and Local Public Sector Workforce

LGA	Total Labour Force 2022	State Government Employees	Local Government Employees	% State and Local public sector of Workforce
Lake Grace	752	72	23	13%

Source: ABS Census Data

Table 6: Shire of Lake Grace Public Sector Workforce

Public Sector Workforce	Lake Grace
Sum of State/Territory Government	72
Sum of Local Government	23
Total State and Local Public Sector	95
Population	1,265
Public Workers per 1,000 Pop	75.1
Public Worker Oversupply(-)/Need (+)	-17.1

Source: ABS Census Data

According to the engagement outcomes (Table 7 below), GROH provides 17 dwellings,14 owned and three leased, and does not propose the development of additional dwellings in the next four years. WACHS provide ten-bed nurses' quarters and one dwelling. WACHS haven't any development plans; however, ideally, they have identified the need for twelve rooms through 6 dwellings (mix of 3x1, 2x1 and 1x1). The Shire of Lake Grace currently rent 11 houses to Shire staff and four houses to the private and public sector market. The Shire has identified the need for five additional dwellings for Shire Staff. There are 29 dwellings and a ten-bed hostel that services 34 % of Public Sector staff within the Shire of Lake Grace. Should the additional accommodation be provided and Workforce maintained rather than increased, 47 % of the public sector workforce could be accommodated.

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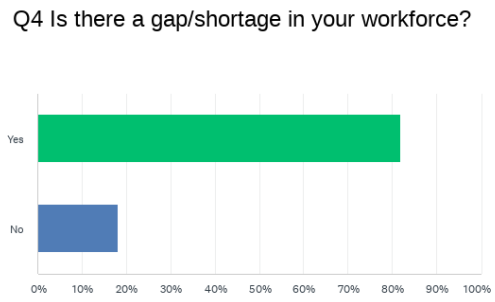
Table 7: Stakeholder Questionnaire Outcomes- Public Sector Housing for Workers

Agency	Houses rented to staff	Number of employees	Staff Shortage	Staff renting Housing	Rent to Agencies or private	Forecast need and gaps for staff housing
Shire of Lake Grace	11	38	4		4	5
GROH	17					0
WACHS	10 bed 1	24	0	Not available		6
Current demand	29 plus 10 bed					11

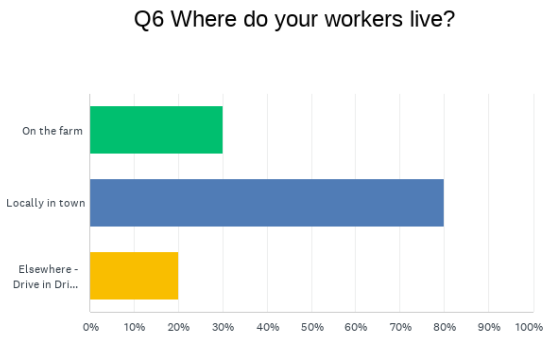
Source: Stakeholder Outcomes Report

Figure 1: Shire of Lake Grace Business Community Survey Response- Worker Shortage



Source: Stakeholder Outcomes Report

Figure 2: Shire of Lake Grace Business Community Survey Response – Worker Living Location



Source: Stakeholder Outcomes Report

Shire of Lake Grace has around 352 businesses, according to the register of Businesses, with 161 businesses actively employing staff. The Community survey identified a need for an average gap of 1.3 workers for each business that needed more workers (80% of businesses), which equates to 167 additional workers required to cover the worker shortage.

According to the survey responses shown in Figure 2, The Shire of Lake Grace accommodates a higher number of employees that live in town compared to the trends across the 4WDL area, where there is typically an equal spread of employees who live on a farm, in town, and access work through drive-in

drive-out. ABS census data indicates a 1.7 % unemployment rate, much lower than the WA average of 5.7%, which may indicate why businesses are registering a worker shortage.

Housing Need Assessment

The 4WDL Worker Housing Bottom-Up Demand Scenarios in the 4WDL Key Worker Housing Analysis indicate demand for additional key workers and over 55's housing as presented in Tables 8 and 9 Below. Scenario D provides figures to support the provision of land supply over the next decade. Scenario E indicates the number of dwellings estimated to be needed currently and in the short term (5 years) to adequately support key workers in the Shire of Lake Grace.

Table 8: Scenario D Shire of Lake Grace Estimated Dwelling Demand 2023-2031

Estimated Dwelling Demand - Shire of Lake Grace				
Housing Sector	Current need	Short term 2024- 2026	Medium term 2026-2031	Total Additional Housing
Public Sector Worker Housing	5	8	5	18
Private Sector Worker Housing	10	15	10	35
Over 55's	5	2	2	9
Total Demand	20	25	10	62

Table 9: Scenario E - Estimated Dwelling Demand - Shire of Lake Grace

Estimated Dwelling Demand - Shire of Lake Grace Conservative				
Housing Sector	Current need	Short term 2024- 2026	Medium term 2026-2031	Total Additional Housing
Public Sector Worker Housing	2	3		5
Private Sector Worker Housing	10	15		25
Over 55's	2	3		5
Total Demand	14	21	0	35

The total number of new dwellings recorded in the Shire of Lake Grace townsite areas from 2012-2021 was 21, indicating an average construction of 2.1 dwellings per year. These statistics verify the ABS statistics on new houses, which identify an average of 2.1 dwellings per annum in the past five years. The estimated dwelling demand for the Shire of Lake Grace to cater for Public and Private sector key workers and over 55's in short to medium term requires between 35 (Low) – 62 (High). While the recommendation for most dwellings to be constructed in the next five years to address the accommodation gap, on average, the demand exists for an additional 3-6 new dwellings per annum over the next ten years to cater for a shortage in worker housing and provide for ongoing replacement housing stock.

According to the LGA survey, the Shire of Lake Grace has 4 vacant residential serviced lots and 7 vacant unserviced Residential lots. Given the low occupancy rates in Newdegate and Lake King it is recommended that the additional dwellings be developed in the townsite of Lake Grace. The Shire has identified potential for an underutilised office development that may be retrofitted for backpacker or short-term accommodation, which may address short term key worker housing accommodation. Short to medium dwelling demand may be catered for within existing areas of town; however, brownfield infill or greenfield subdivision will be required to address continued long-term demand.

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Shire of West Arthur Housing Profile

The Shire of West Arthur currently supports 773 people, according to the 2021 ABS census data. The Shire includes four townsites of Darkan, Bowelling, Duranillin and Moodiarrup, which comprise 35% of the Shire population. The majority of the townsite population reside in Darkan (Data is unavailable for Duranillin and Moodiarrup). While the Shire population has declined since 2011, the townsite populations have remained relatively stable. The Shire population has decreased in the past 15 years by 95 people, according to the ABS 2021 census data. Table 1 below indicates a significant reduction in total dwellings. This information may be due to some ABS classification changes over time or actual activity and may need further study.

Table 1: Shire of West Arthur Population and Total Dwellings Trends 2011- 2021

Shire of West Arthur	2011	2016	2021
Population	868	809	773
Total Dwellings	490	469	376
Household size	2.4	2.3	2.2
Darkan Town site			
Population	217	228	194
Total Dwellings	122	123	120
Household size	2.2	2.2	1.8
*Bowelling Townsite			
Population		83	84
Total Dwellings		47	37
Household size		2.5	2.6
*Duranillan Townsite	No Data		
*Moodiarrup Townsite	No Data		
Townsite Population		311	278
Remaining Population		498	495

*These towns have no water supply.

Source: ABS Census Data

The 2021 ABS Statistics recorded 376 dwellings in the Shire of West Arthur, while the Shire records indicate 506 dwellings. The Shire of West Arthur recorded the greatest drop in dwellings in the 4WDL according to the ABS statistics from 2011 – 2021. Given that the Shire records are showing 500+ this seems to be a disparity in statistics. The disparity between the ABS statistics and the Shire records will need further investigation. According to the Shire records, only five building licences for dwellings have been approved in townsite areas over the past ten years. These statistics verify ABS, which identifies an average construction of 0.6 dwellings per annum in the past five years.

Table 2 shows that Band D of the WA Tomorrow Statistics correlates closely with the historical population trends for the 4WDL area, forecast in a relatively stable population base with a forecast decline of around 83 people over the next decade.

Appendix A Local Government Area Profiles

Table 2: Shire of West Arthur Population forecast (WA Tomorrow)

WA Tomorrow Forecast (WAPC)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
West Arthur	795	795	795	795	795	789	784	778	773	767

Source: WA Tomorrow

Table 3 reveals that the percentage of the population over 65 has experienced an overall decline in the past decade, although there is increased representation in the Darkan townsite. The median age trend is increasing in the Shire of West Arthur. The 0-14 age group population has decreased marginally over the past ten years across the LGA. Household composition trends reveal a decline in the number of family households; however, an increase in lone and group households.

Table 3: Shire of West Arthur Age Profile, Household Composition and Dwelling Type (Trends 2011- 2021)

Year	2011		2016			2021		
Location	WA (LGA)	D (UCL)	WA (LGA)	D (UCL)	B (Suburb)	WA (LGA)	D (UCL)	B (Suburb)
Population	868	217	809	228	83	773	194	84
Median Age	44	45	47	42	47	50	52	48
Total Dwellings	490	122	469	123	39	2.2	1.8	2.6
Average Household Size	2.4	2.2	2.3	2.2	2.5	2.2	1.8	2.6
Share of Population 0-14 (%)	22.20%	19.90%	18.90%	24.40%	20.48%	17.10%	22.20%	17.86%
Share of Population 65+ (%)	18.50%	21.90%	19.10%	24.80%	14.46%	23.40%	22.70%	13.10%
Family Households	259	63	215	56	19	202	38	21
Lone Person Households	89	31	103	39	12	86	36	5
Group Households	4	0	9	4	0	8	3	0
Occupied	354	92	330	95	32	293	74	31
Unoccupied	124	29	102	20	4	41	24	6
Separate house	332	82	326	91	32	285	68	31
townhouse etc	0	0	4	4	0	6	6	0
Flat or apartment	10	11	0	0	0	0	0	0
Other dwelling	9	0	0	0	0	0	0	0

Source: ABS Census Data

The occupancy of dwellings statistics overall is higher for West Arthur than other Local Governments in the 4 WDL area, with 88% of dwellings occupied. Whilst the ABS data indicates that there is 24% vacancy rate in the town of Darkan. On ground data provided by the Shire in 2023, indicates only 10 buildings in the townsite of Darkan are vacant, four are zoned commercial and 3 are empty as a result of recent deaths (and therefore need to go through probate process). This leaves three vacant houses available for rent. One of these is a Shire house. An estimate of vacancy (and available housing) in Darkan Townsite is indicated by the Shire to be closer to 3%.

Appendix A Local Government Area Profiles

Table 4: 2021 Shire of West Arthur Dwellings Tenure and Occupancy Trends by LGA and Townsites

Indicators	West Arthur (LGA)	Darkan (UCL)	Bowelling (Suburb)
Population	773	194	84
Total Dwellings	376	120	37
Occupied	88%	76%	84%
Unoccupied	12%	24%	16%
Owned outright	51%	44%	55%

Source: ABS Census Data

State and Local Government employees comprise 7% of the Shire of West Arthur workforce, registering 28 staff in 2021 (See Table 5).

Table 5: Shire of West Arthur % State and Local Public Sector Workforce

LGA	Total Labour Force 2022	State Government Employees	Local Government Employees	% State and Local public sector of workforce
West Arthur	428	7	21	7%

Source: ABS Census Data

Table 6: Shire of West Arthur Public Sector Workforce

Indicators	West Arthur	Rest of WA
Sum of State/Territory Government	7	26861
Sum of Local Government	21	6054
Total State and Local Public Sector	28	32915
Population	773	534,804
Public Workers per 1,000 Pop	36.2	61.5
Public Worker Oversupply(-)/Need (+)	19.6	

Source: ABS Census Data

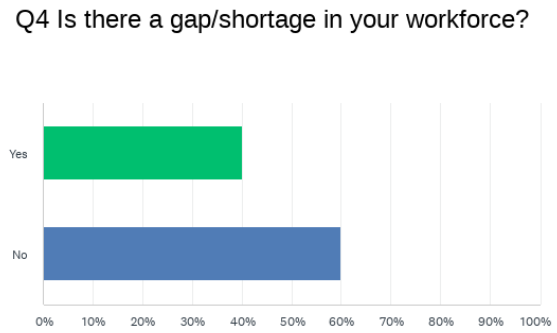
According to the engagement outcomes (Table 7 below), GROH provides three dwellings in the Shire of West Arthur which are all leased, and does not propose the development of additional dwellings in the next four years. WACHS do not provide accommodation in the Darkan for any workers as there is no hospital. The Shire of West Arthur currently rent six houses to shire workers and eight houses to the private and public sector market. The Shire has identified the need for three additional dwellings. The stakeholder questionnaire responses for the 4WDL area generally indicate that there will not be a demand for increasing the workforce in the public sector; however, to retain and attract replacement workers will need improved access to better standard accommodation. If additional accommodation is provided and the workforce is maintained rather than increased, 42% of the public sector workforce could be accommodated.

Table 7: Stakeholder Questionnaire Outcomes- Public Sector Housing for Workers

Agency	Houses rented to Workers	No. of Workers	Worker Shortage	Rented to market	Forecast Housing Need
Shire of West Arthur	6	36		8	3
GROH	3				0
Total	9				3

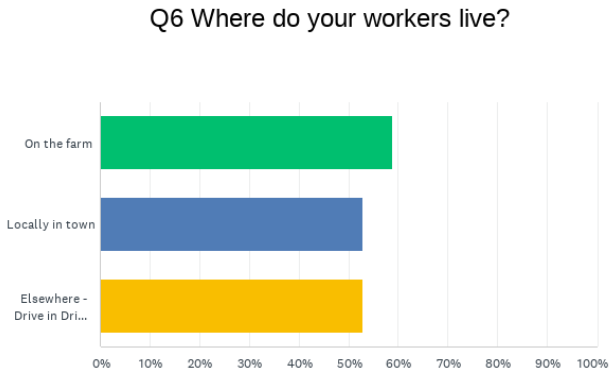
Appendix A Local Government Area Profiles

Figure 1: Shire of West Arthur Business Community Survey Response- Worker Shortage



Source: Stakeholder Outcomes Report

Figure 2: Shire of West Arthur Business Community Survey Response – Worker Living Location



Source: Stakeholder Outcomes Report

According to the Register of Businesses, the Shire of West Arthur has around 208 businesses, with 88 businesses actively employing staff. The Community survey identified a need for an average of 1.3 additional workers for each business that needed more workers (40% of businesses). ABS census data indicates a 2.8 % unemployment rate, much lower than the WA average of 5.7%.

According to the survey responses shown in Figure 2 above, the Shire of West Arthur is representative of the trends across the 4WDL area where there is a fairly equal spread of employees who live on a farm, in town, and access work through drive-in drive-out. However, the majority of accommodation is provided in rural areas, which is different from other 4 WDL shires.

Appendix A Local Government Area Profiles

Housing Need Assessment

The 4WDL Worker Housing Bottom-Up Demand Scenarios in the 4WDL Key Worker Housing Analysis indicate demand for additional key workers and over 55's housing as presented in Tables 8 and 9 Below. Scenario D provides figures to support the provision of land supply over the next decade. Scenario E indicates the number of dwellings estimated to be needed currently and in the short term (5 years) to adequately support key workers in the Shire of West Arthur.

Table 8: Scenario D Shire of West Arthur Estimated Dwelling Demand 2023-2031

Estimated Dwelling Demand - West Arthur (high)				
Housing Sector	Current need	Short term 2024- 2026	Medium term 2026-2031	Total Additional Housing
Public Sector Worker Housing	3	8	5	16
Private Sector Worker Housing	5	5	5	15
Over 55's	5	3	2	10
Total Demand	13	16	12	41

Table 9: Scenario E - Estimated Dwelling Demand - Shire of West Arthur

Estimated Dwelling Demand - West Arthur (Conservative)				
Housing Sector	Current need	Short term 2024- 2026	Medium term 2026-2031	Total Additional Housing
Public Sector Worker Housing	3			3
Private Sector Worker Housing	5	5	5	15
Over 55's	3	2	0	5
Total Demand	11	7	5	23

The total number of new dwellings recorded in the Shire of West Arthur townsite areas from 2012-2021 was five, indicating an average construction of less than one dwelling per year. The estimated dwelling demand for the Shire of West Arthur to cater for Public and Private sector key workers and over 55's requires between 23 (Low) – 41 (High). While the recommendation for most dwellings to be constructed in the next five years to address the accommodation gap, on average, the demand exists for an additional 2-4 new dwellings per annum over the next ten years to cater for a shortage in worker housing and provide for ongoing replacement housing stock.

According to the LGA survey, the Darkan townsite has 18 vacant serviced residential lots, of which twelve were sold in 2021/22 with a condition of sale that required buildings to be constructed within 3 years, therefore leaving six vacant lots in private ownership. Duranillin has nine vacant residential lots and Bowelling also has a number of vacant residential blocks, however, there is no water supply to either town and as a result development in Duranillin and Bowelling has been curtailed and is unlikely to progress in future year.

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Shire of Wagin Housing Profile

The Shire of Wagin currently supports the largest proportion of the 4WDL population, with 1791 people, according to the 2021 ABS census data. The trends for Wagin point to town-centric development. Approximately 74% of the population in the Shire of Wagin reside in the townsite of Wagin, with no current records for the population of the Piesseville townsite. The Wagin townsite has a population of 1311, experiencing a slight decline in numbers since 2011. However, the overall proportion of people living in the town of Wagin compared to the surrounding rural areas has been stable. The overall Shire population has decreased by 85 people in the past ten years, according to the ABS 2021 census data. Table 1 below indicates a reduction in total dwellings. This information may be due to some ABS classification changes over time or actual activity and may need further study.

Table 1: Shire of Wagin Population and Total Dwellings Trends 2011- 2021

Shire of Wagin	2011	2016	2021	Trends
Population	1846	1852	1761	-85
Total Dwellings	949	943	886	-63
Household size	2.3	2.2	2.2	-0.1
Wagin Townsite				
Population	1365	1358	1311	-54
Total Dwellings	713	710	704	-9
Household size	2.3	2	2	2
Piesseville Townsite	No Data			
Townsite Population		1358	1311	-47
Remaining Population		494	450	-44

Source: ABS Census Data

The 2021 ABS Statistics recorded 886 dwellings in the Shire of Wagin, while the Shire records indicate 753 dwellings. According to the Shire records, 31 building licences for dwellings have been approved in townsite areas over the past ten years. These statistics verified by ABS identify an average construction of 2 dwellings per annum in the past five years.

Table 2 shows that Band D of the WA Tomorrow Statistics correlates closely with the historical population trends for the 4WDL area, forecast in a relatively stable population base with a forecast decline of around 83 people over the next decade.

Table 2: Shire of Wagin Population forecast (WA Tomorrow)

WAPC Scenario Band D	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Shire of Wagin	1,798	1,794	1,790	1,786	1,783	1,769	1,755	1,742	1,728	1,715

Source: WA Tomorrow

Table 3 reveals that the percentage of the population over 65 has experienced an increase in the past decade. However, the median age trend is stable in the Shire of Wagin. The 0-14 age group population has decreased marginally over the past ten years across the LGA. Household composition trends reveal a decline in the number of family households; however, an increase in lone and group households.

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Table 3: Shire of Wagin Age Profile, Household Composition and Dwelling Type (Trends 2011- 2021)

	2011		2016		2021		Trends	
W - Wagin	(LGA)	(UCL)	(LGA)	(UCL)	LGA)	(UCL)	LGA	UCL
Average Household Size	2.3	2.3	2.2	2	2.2	2	2.2	2
Share of Population 0-14 (%)	20.70%	19.40%	17.80%	15.80%	15.70%	14.20%	-5.00%	-5.20%
Share of Population 65+ (%)	19.70%	23.80%	24.70%	27.10%	27.40%	29.30%	7.70%	5.50%
Family Households	497	356	471	345	430	313	-67	-43
Lone Person Households	219	190	235	207	242	216	23	26
Group Households	11	9	17	11	21	18	10	9
Occupied	728	557	723	558	684	550	-44	-7
Unoccupied	199	138	140	89	125	99	-74	-39
Separate house	679	507	666	509	640	507	-39	-172
Semi-detached, row or terrace house, townhouse etc	43	44	40	40	38	38	-5	-5
Flat or apartment	0	0	0	0	0	0		0
Other dwelling	6	6	8	5	4	0	-2	-6

Source: ABS Census Data

The occupancy of dwellings is similar between the townsite and the Shire overall, indicating that 85% of dwellings are occupied. Interesting to note that while the 2021 census indicates 886 dwellings, the Shire's rateable residential properties were lower at 753, representing 84% of the ABS Statistics. This information may provide a context for further investigation into declining and unoccupied dwellings.

Table 4: 2021 Shire of Wagin Dwellings Tenure and Occupancy Trends by LGA and Townsites

Indicators	Wagin (LGA)	Wagin (UCL)
Population	1761	1311
Total Dwellings	886	704
Occupied	85%	85%
Unoccupied	15%	15%
Owned outright	45%	41%
Owned with a mortgage	27%	30%
Rented	0%	0%
Rented	21%	25%
Other tenure type	4%	2%
Tenure type not stated	2%	3%

Source: ABS Census Data

State and Local Government employees comprise 9% of the Shire of Wagin workforce, registering 84 staff in 2021 (See Table 5). GROH provides 13 dwellings, ten owned, three of which are leased, and proposes the development of three additional dwellings in the next four years (See Table 7). WACHS provide two owned dwellings and rents three dwellings for staff. WACHS hasn't any development plans; however, they have identified the need for six additional dwellings (comprising 12 rooms in the configuration of 3x2, 2x1,1x1 accommodation units). The Shire of Wagin has identified the need for one additional dwelling for Shire Staff.

Table 5: Shire of Wagin % State and Local Public Sector Workforce

LGA	Total Labour Force 2021	State Government Employees	Local Government Employees	% State and Local public sector of Workforce
Wagin	971	59	25	9%

Source: ABS Census Data

Table 6: Shire of Wagin Public Sector Workforce

Public Sector Workforce	Wagin
Sum of State/Territory Government	59
Sum of Local Government	25
Total State and Local Public Sector	84
Population	1,761
Public Workers per 1,000 Pop	47.7
Public Worker Oversupply(-)/Need (+)	24.4

Source: ABS Census Data

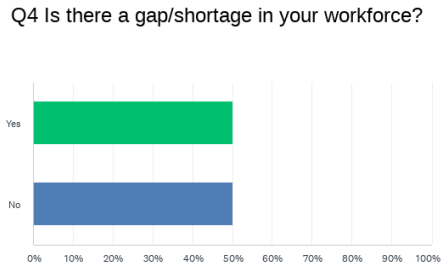
According to the engagement outcomes (Table 7 below), 18 houses service the public sector staff of the Shire of Wagin, which means 21 % of Public Sector workers have housing provided. The stakeholder questionnaire responses for the 4WDL area generally indicate that there will not be a demand for increasing the Workforce in the public sector; however, to retain and attract replacement workers will need improved access to better standard accommodation. In this case, providing the suggested additional accommodation would result in 33% of the public sector workers being housed in the Shire of Wagin.

Table 7: Stakeholder Questionnaire Outcomes- Public Sector Housing for Workers

Agency	Houses rented to Workers	No. of Workers	Worker Shortage	Rented to market	Forecast Housing Need
Shire of Wagin	0	54	0	4	1
GROH	13				3
WACHS	5	24	0		6
Total	18	78	0	4	10

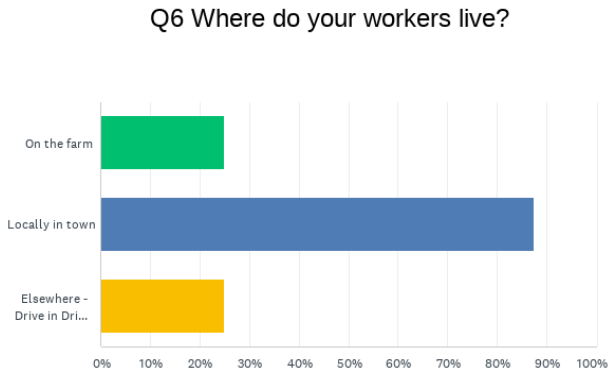
Source: Stakeholder Outcomes Report

Figure 1: Shire of Wagin Business Community Survey Response- Worker Shortage



Source: Stakeholder Outcomes Report

Figure 2: Shire of Wagin Business Community Survey Response – Worker Living Location



Source: Stakeholder Outcomes Report

Shire of Wagin has around 247 businesses, according to the register of Businesses, with 123 businesses actively employing staff. The Community survey identified a need for an average of two additional workers for each business that needed more workers (50% of businesses).ABS census data indicates a 2.5 % unemployment rate, much lower than the WA average of 5.7%.

According to the survey responses shown in Figure 2 above, The Shire of Wagin has a higher number of employees that live in town compared to the trends across the 4WDL area, where there is typically an equal spread of employees who live on a farm, in town, and access work through drive-in drive-out.

Housing Need Assessment

The 4WDL Worker Housing Bottom-Up Demand Scenarios in the 4WDL Key Worker Housing Analysis indicate demand for additional key workers and over 55's housing as presented in Tables 8 and 9 Below. Scenario D provides figures to support the provision of land supply over the next decade. Scenario E indicates the number of dwellings estimated to be needed currently and in the short term (5 years) to adequately support key workers in the Shire of Wagin.

Table 8: Scenario D Shire of Wagin Estimated Dwelling Demand 2023-2031

Estimated Dwelling Demand - Shire of Wagin (high scenario)				
Housing Sector	Current need	Short-term 2024- 2026	Medium-term 2026-2031	Total Additional Housing
Public Sector Worker Housing	12	12	5	29
Private Sector Worker Housing	10	17	5	32
Over 55's	12	12	5	29
Total Demand	34	41	15	90

Table 9: Scenario E - Estimated Dwelling Demand - Shire of Wagin

Estimated Dwelling Demand - Shire of Wagin (conservative scenario)				
Housing Sector	Current need	Short-term 2024- 2026	Medium-term 2026-2031	Total Additional Housing
Public Sector Worker Housing	5	5	5	15
Private Sector Worker Housing	11	11	5	27
Over 55's	10	9	5	24
Total Demand	26	25	15	66

The total number of new dwellings recorded in the Shire of Wagin townsite areas from 2012-2021 was 31, indicating an average construction of 3 dwellings per year. The estimated dwelling demand for the Shire of Wagin to cater for Public and Private sector key workers and over 55's in short to medium term requires between 66 (Low) – 90 (High). While the recommendation for most dwellings to be constructed in the next five years to address the accommodation gap, on average, the demand exists for an additional 6-9 new dwellings per annum over the next ten years to cater for a shortage in worker housing and provide for ongoing replacement housing stock.

With only six vacant serviced residential lots in the townsite of Wagin, additional infill, brownfield and greenfield subdivisions will need to be considered as a priority to identify sites to cater for immediate and ongoing dwelling demand. In the meantime, redevelopment of existing zoned land may be an option. The Townsite of Wagin is a priority town in the 4 WDL for further investigation into development sites.

Appendix A Local Government Area Profiles

Shire of Williams Housing Profile

The Shire of Williams currently supports approximately 17% of the 4WDL area population. The Shire of Williams comprises the townsite of Williams and Quindanning. There is no data available for Quindanning, so the data is grouped with the remaining population. The Williams townsite in 2021 had a population of 424, representing 41% of the Shires population. According to the ABS census data, the Shire of Williams population has increased over the past ten years by 107 people. There has been an increase in the proportion of people living in towns since 2011, comprising 41% of the population. Unlike the other Shires studied, the ABS statistics indicate an increase in dwellings.

Table 1: Shire of Williams Population and Total Dwellings Trends 2011- 2021

Shire of Williams	2011	2016	2021	Trends
Population	914	981	1021	107
Total Dwellings	460	455	503	43
Household size	2.3	2.5	2.4	0.1
Williams Townsite				
Population	371	411	424	
Total Dwellings	191	186	207	
Household size	2.3	2.3	2.3	
Quindanning Townsite	No Data			
Townsite Population	371	422	424	53
Remaining Population	543	570	597	54

Source: ABS Census Data

The 2021 ABS Statistics recorded 503 dwellings in the Shire of Williams, and the rates records have 436 dwellings. According to the Shire records, the Shire of Williams has approved 26 building licences in townsite areas over the past ten years, which averages 2.9 dwellings a year. These statistics are lower than the ABS statistics on new houses, which identifies 24 dwellings, which averages 4.8 additional dwellings per annum more recently.

Table 2 shows that Band D of the WA Tomorrow Statistics correlates closely with the historical population trends for the 4WDL area, forecast in a relatively stable population base with a forecast decline of around 83 people over the next decade.

Table 2: Shire of Williams Population forecast (WA Tomorrow)

WAPC Tomorrow	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Williams	1,050	1,050	1,050	1,050	1,050	1,044	1,038	1,032	1,027	1,021

Source: WA Tomorrow WAPC

Table 3 reveals that the percentage of the population over 65 has experienced a significant increase in the past decade. The median age trend is slightly younger, with an increase in representation of the 0-14 age group population over the past ten years across the LGA. Household composition trends reveal a decline in the number of family households; however, an increase in lone and group households.

Appendix A Local Government Area Profiles

Table 3: Shire of Williams Age Profile, Household Composition and Dwelling Type (Trends 2011- 2021)

	2011		2016		2021		Trends	
Location	Williams (LGA)	Williams (UCL)	Williams (LGA)	Williams (UCL)	Williams (LGA)	Williams (UCL)		
Population	914	371	981	411	1021	424	107	53
Median Age	43	36	43	40	41	378	-2	342
Total Dwellings	460	191	455	186	503	207	43	16
Average Household Size	2.3	2.3	2.5	2.3	2.4	2.3	0.1	0
Share of Population 0-14 (%)	20.50%	20.70%	20.20%	22.00%	21.90%	24.80%	1.40%	4.10%
Share of Population 65+ (%)	14.90%	15.90%	16.90%	18.50%	29.00%	19.40%	14.10%	4.50%
Family Households	272	104	265	89	260	94	-12	-10
Lone Person Households	90	47	80	49	95	58	5	11
Group Households	5	8	8	5	7	3	2	-5
Dwelling Occupancy							0	0
Occupied	366	160	354	149	365	156	-1	-4
Unoccupied	82	24	76	31	90	24	8	0
Dwelling Type (Occupied)							0	0
Separate house	347	145	340	135	347	140	0	-5
townhouse etc	12	12	14	14	12	12	0	0
Flat or apartment	3	3	0	0	4	0	1	-3
Other dwelling	4	0	0	0	0	0	-4	0

Source: ABS Census Data

Dwelling occupancy of 87% in the townsite of Williams is higher than Shire and 4WDL trends.

Table 4: 2021 Shire of Williams Dwellings Tenure and Occupancy Trends by LGA and Townsites

Indicators	Williams (LGA)	Williams (UCL)
Population	1021	424
Total Dwellings	503	207
Dwelling Occupancy		
Occupied	80%	87%
Unoccupied	20%	13%
Owned outright	42%	35%
Owned with a mortgage	22%	24%
Rented	0%	0%
Rented	22%	31%
Other tenure type	11%	7%
Tenure type not stated	2%	3%

Source: ABS Census Data

State and Local Government employees comprise 10% of the Shire of Williams workforce, registering 51 staff in 2021 (See Table 5). GROH provides seven dwellings, five owned and two leased and does not propose the development of additional dwellings in the next four years. WACHS own two dwellings that accommodate staff. WACHS haven't any development plans; however, identify the need for one additional home. The Shire of Williams currently rent four houses to Shire staff and one house to the private and public sector market. The Shire has identified the need for two additional dwellings for Shire Staff.

Table 5: Shire of Williams % State and Local Public Sector Workforce

LGA	Total Labour Force 2022	State Government Employees	Local Government Employees	% State and Local public sector of workforce
Williams	509	26	25	10%

Source: ABS Census Data

Table 6: Shire of Williams Public Sector Workforce

Public Sector Workforce	Williams
Sum of State/Territory Government	26
Sum of Local Government	25
Total State and Local Public Sector	51
Population	1,021
Public Workers per 1,000 Pop	50.0
Public Worker Oversupply(-)/Need (+)	11.8

Source: ABS Census Data

According to the engagement outcomes (Table 7 below), ten houses service the public sector staff of the Shire of Williams, meaning that 19% of Public Sector staff are accommodated. The stakeholder questionnaire responses for the 4WDL area generally indicate that there will not be a demand for increasing the workforce in the public sector; however, to retain and attract replacement workers will need improved access to better standard accommodation. In this case, providing the suggested additional accommodation would result in housing 29% of the public sector workers in the Shire of Williams.

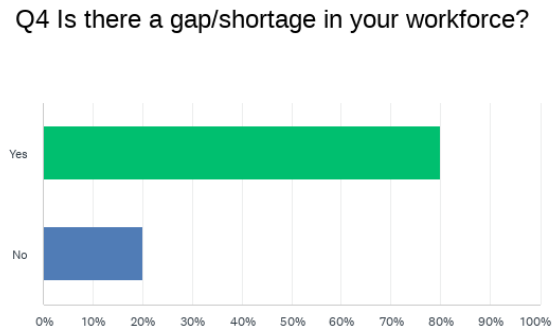
Table 7: Stakeholder Questionnaire Outcomes- Public Sector Housing for Workers

Agency	Houses rented to staff	Number of employees	Staff Shortage	Staff renting Housing	Rent to Agencies or private	Forecast need and gaps for staff housing
Shire of Williams	5	31		4	1	2
GROH	5					2
WACHS	0	6	0	Not sure		1
Current demand	10					5

Source: Stakeholder Outcomes Report

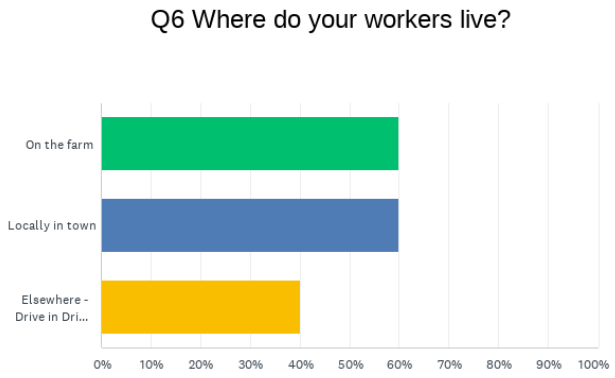
Appendix A Local Government Area Profiles

Figure 1: Shire of Williams Business Community Survey Response- Worker Shortage



Source: Stakeholder Outcomes Report

Figure 2: Shire of Williams Business Community Survey Response – Worker Living Location



Source: Stakeholder Outcomes Report

According to the Register of Businesses, the Shire of Williams has around 182 businesses, with 82 businesses actively employing staff. The Community survey identified a need for an average gap of 1.3 workers for each business that needed more workers (80% of businesses), which equates to 66 additional workers required to cover the worker shortage. ABS census data indicates a 2.9 % unemployment rate, much lower than the WA average of 5.7%, which may indicate why businesses are registering a shortage of workers. The ABS statistics show that ten people are unemployed in the Shire.

According to the survey responses shown in Figure 2 above, The Shire of Williams is representative of the trends across the 4WDL area, where there is a fairly equal spread of employees who live on a farm, in town, with a slightly smaller proportion of employees that drive in drive out.

Housing Need Assessment

The 4WDL Worker Housing Bottom-Up Demand Scenarios in the 4WDL Key Worker Housing Analysis indicate demand for additional key workers and over 55's housing as presented in Tables 8 and 9 Below. Scenario D provides figures to support the provision of land supply over the next decade.

Scenario E indicates the number of dwellings estimated to be needed currently and in the short term (five years) to adequately support key workers in the Shire of Williams.

Table 8: Scenario D Shire of Williams Estimated Dwelling Demand 2023-2031

Estimated Dwelling Demand - Williams (high)				
Housing Sector	Current need	Short term 2024- 2026	Medium term 2026-2031	Total Additional Housing
Public Sector Worker Housing	8	7	5	20
Private Sector Worker Housing	10	10	8	28
Over 55's	4		2	6
Total Demand	22	17	10	54

Table 9: Scenario E - Estimated Dwelling Demand - Shire of Williams

Estimated Dwelling Demand - Williams (low)				
Housing Sector	Current need	Short term 2024- 2026	Medium term 2026-2031	Total Additional Housing
Public Sector Worker Housing	5	0	4	9
Private Sector Worker Housing	8	5	4	17
Over 55's	2	2	4	8
Total Demand	15	7	8	34

The estimated dwelling demand for the Shire of Williams to cater for Public and Private sector key workers and over 55's in short to medium term requires between 34 (Low) – 54 (High). While the recommendation for most dwellings to be constructed in the next five years to address the accommodation gap, on average, the demand exists for an additional 4-6 dwellings per annum over the next ten years to cater for a shortage in worker housing and provide for ongoing replacement housing stock.

According to the LGA survey, the Shire of Williams has 32 vacant residential serviced lots and 43 unserviced residential zoned lots. Short to medium-term demand may be facilitated by serviced Residential Lots in town. Servicing options for other zoned unserviced land may meet demand through the brownfield subdivision.

Appendix A Local Government Area Profiles

Shire of Woodanilling Housing Profile

The Shire of Woodanilling currently supports approximately 8% of the 4WDL area population. The Shire of Woodanilling population is 448, according to the 2021 ABS census data, with approximately 46% of the population residing in the Woodanilling townsite. The Shire population has increased in the past ten years by 29 people, according to the ABS 2021 census data. Table 1 below also indicates an increase in total dwellings.

Table 1: Shire of Woodanilling Population and Total Dwellings Trends 2011- 2021

Shire of Woodanilling	2011	2016	2021	Trends
Population	419	409	448	29
Total Dwellings	205	204	221	16
Household size	2.5	2.4	2.5	0
Woodanilling Townsite				
Population	No data	170	207	
Total Dwellings		101	110	
Household size		2.1	2.1	
Townsite Population		170	207	37
Remaining		239	241	2

Source: ABS Census Data

The 2021 ABS Statistics recorded 221 dwellings in the Shire of Woodanilling. According to the Shire records, 19 building licences for dwellings have been approved in townsite areas over the past ten years. The ABS statistics on new houses identify an average of 1 dwelling per annum in the past five years.

Table 2 shows that Band D of the WA Tomorrow Statistics correlates closely with the historical population trends for the 4WDL area and indicates a relatively stable forecast population in the future.

Table 2: Shire of Woodanilling Population forecast (WA Tomorrow)

WA tomorrow forecast	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Woodanilling	472	476	480	484	488	484	480	476	472	468

Source: WA Tomorrow (WAPC)

Table 3 reveals an increase in the median age and the percentage of the population over 65 in the past decade. The 0-14 age group has declined over the decade across the LGA. Woodanilling has experienced growth in all household types.

Appendix A Local Government Area Profiles

Table 3: Shire of Woodanilling Age Profile, Household Composition and Dwelling Type (Trends 2011- 2021)

	2011	2016		2021		Trends	
	Woodanilling (LGA)	Woodanilling (LGA)	Woodanilling (Suburb)	Woodanilling (LGA)	Woodanilling (Suburb)	LGA	UCL
Population	419	409	170	448	207	29	37
Median Age	39	43	49	45	54	6	5
Total Dwellings	205	204	101	221	110	16	9
Average Household Size	2.5	2.4	2.1	2.5	2.1	0	0
(%)Share of Population 0-14	26.50%	21.20%	15.00%	21.40%	15.80%	-5.10%	0.80%
(%)Share of Population 65+	13.10%	13.40%	20.40%	21.60%	29.50%	8.50%	9.10%
Family Households	118	108	42	119	49	1	7
Lone Person Households	37	42	24	44	29	7	5
Group Households	3	3	3	7	3	4	0
Occupied	156	156	74	161	81	5	7
Unoccupied	48	36	16	47	20	-1	4
Separate house	154	153	71	161	81	7	10
townhouse etc	3	0	0	0	0	-3	0
Flat or apartment	0	0	0	0	0	0	0
Other dwelling	0	3	3	0	0	0	-3

Source: ABS Census Data

The occupancy of dwellings is similar between the townsite and the Shire overall, indicating that 77% of dwellings are occupied.

Table 4: 2021 Shire of Woodanilling Dwellings Tenure and Occupancy Trends by LGA and Townsites

Location	Woodanilling (LGA)	Woodanilling (Suburb)
Occupied	77%	80%
Unoccupied	23%	20%
Owned outright	50%	44%
Owned with a mortgage	22%	32%
Rented	0%	0%
Rented	15%	20%
Other tenure type	12%	4%
Tenure type not stated	0%	0%

Source: ABS Census Data

State and Local Government employees comprise 8.4% of the Shire of Woodanilling workforce, registering 17 staff in 2021. (See Table 5).

Appendix A Local Government Area Profiles

Table 5: Shire of Woodanilling % State and Local Public Sector Workforce

LGA	Total Labour Force 2022	State Government Employees	Local Government Employees	% State and Local public sector of Workforce
Woodanilling	206	5	12	8%

Source: ABS Census Data

Table 6: Shire of Woodanilling Public Sector Workforce

Indicators	Woodanilling
Sum of State/Territory Government	5
Sum of Local Government	12
Total State and Local Public Sector	17
Population	448
Public Workers per 1,000 Pop	37.9
Public Worker Oversupply(-)/Need (+)	10.6

Source: ABS Census Data

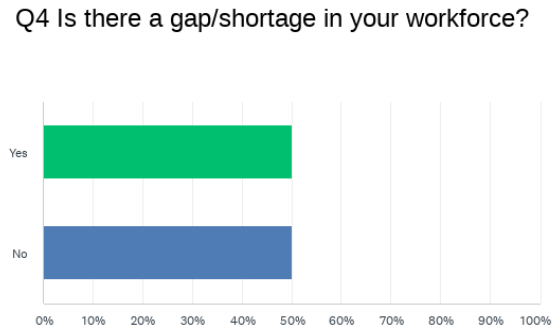
GROH and WACHS do not own or provide worker housing in Woodanilling. According to the engagement outcomes (Table 7 below), The Shire of Woodanilling currently rent three houses to Shire staff and eight to the private and public sector market. The Shire has identified the need for ten additional dwellings for Shire workers. Three houses service the public sector staff (Shire Staff) of the Shire of Woodanilling, which means that 18.75% of Public Sector staff have accommodation supplied. Should additional accommodation be provided as suggested in Table 7 below and the workforce maintained rather than increased, then 81% of the public sector workforce could be accommodated.

Table 7: Stakeholder Questionnaire Outcomes- Public Sector Housing for Workers

Shire	Houses rented to staff	Number of employees	Staff Shortage	Staff renting Housing	Rent to agencies or private	Forecast need/gaps
Shire of Woodanilling	11	16	0	3	8	10

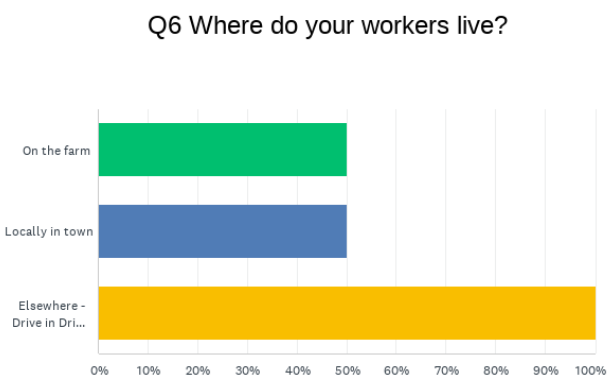
Source: Stakeholder Outcomes Report

Figure 1: Shire of Woodanilling Business Community Survey Response- Worker Shortage



Source: Stakeholder Outcomes Report

Figure 2: Shire of Woodanilling Business Community Survey Response – Worker Living Location



Source: Stakeholder Outcomes Report

According to the Register of Businesses, the Shire of Woodanilling has around 89 businesses, with 36 businesses actively employing staff. The Community survey identified a need for an average of 1.3 additional workers for each business that needed more workers (50% of businesses). ABS census data indicates a 2.8% unemployment rate, much lower than the WA average of 5.7%, which may indicate why businesses are registering a worker shortage.

According to the survey responses shown in Figure 2 above, the Shire of Woodanilling has the highest proportion of key workers that drive in and drive out compared to the trends across the 4WDL area, where there is typically an equal spread of employees who live on a farm, in town, and access work through drive-in drive-out.

Housing Need Assessment

The 4WDL Worker Housing Bottom-Up Demand Scenarios in the 4WDL Key Worker Housing Analysis indicate demand for additional key workers and over 55's housing as presented in Tables 8 and 9 Below. Scenario D provides figures to support the provision of land supply over the next decade. Scenario E indicates the number of dwellings estimated to be needed currently and in the short term (5 years) to adequately support key workers in the Shire of Woodanilling.

Table 8: Scenario D Shire of Woodanilling Estimated Dwelling Demand 2023-2031

Estimated Dwelling Demand - Woodanilling (high estimate)				
Housing Sector	Current need	Short- term 2024- 2026	Medium term 2026-2031	Total Additional Housing
Public Sector Worker Housing	6	4		10
Private Sector Worker Housing	8	9	3	20
Over 55's	4		2	6
Total Demand	18	13	5	36

Table 9: Scenario E - Estimated Dwelling Demand - Shire of Woodanilling

Estimated Dwelling Demand - Woodanilling (conservative)				
Housing Sector	Current need	Short term 2024- 2026	Medium term 2026-2031	Total Additional Housing
Public Sector Worker Housing	3	3		6
Private Sector Worker Housing	4	3	3	10
Over 55's	2	1		3
Total Demand	9	7	3	19

The estimated dwelling demand for the Shire of Woodanilling to cater for Public and Private sector key workers and over 55's in short to medium term requires between 19 (Low) – 36 (High). While the recommendation for most dwellings to be constructed in the next five years to address the accommodation gap, on average, the demand exists for an additional 2-4 new dwellings per annum over the next ten years to cater for a shortage in worker housing and provide for ongoing replacement housing stock.

According to the LGA survey, the Woodanilling townsite has 45 vacant residential serviced lots and 22 vacant unserviced residential lots. The existing serviced residential lots in town may cater for demand without considering land release.

Appendix B – KWHA Literature Review

Key Worker Housing Analysis: Literature Review of relevant documentation by LGA

Title	Purpose/Background	Relevant Principles and Provisions
Shire of Wagin		
Shire of Wagin Strategic Community Plan 2020 - 2030	The Shire of Wagin reviewed the SCP in August 2022. This community plan provides the overarching guidance and mandate for the Shire of Wagin activities, services and functions to meet the needs and aspirations of ratepayers and the wider community.	The key focus areas include: • Economic Development • Buildings and Infrastructure • Community Services and • Social Environment • Town and Natural • Environment Council Leadership Community Strategic Vision 'Wagin is a community where individuals, families and businesses can invest and prosper, preserving the safe, affordable and inclusive country lifestyle and ensuring that Wagin is a place people like to live in and visit' Shire of Wagin services include: • Hospital with Emergency department • Medical Centre • Aged Care facility • Royal Flying doctor • Wagin District High school until Year 10 Relevant extracts from SCP in table 1 below: 1.0 Economic Development 1.5 Explore affordable accommodation for workers. • Support the attraction and retention of small business and housing of key workers in the region • Diverse business community with housing for key workers • Progress on development initiatives 2.0 Buildings and infrastructure 2.7 Upgrade of staff housing as a recruitment and retention strategy for Shire CEO/Council. Appropriate accommodation for key shire staff Progress of upgrade strategies 2.9 Investigate future housing and expansion for tourist and other attractions. 3.0 Community Services and Social Environment 3.3 Housing, Job and training especially for young people.

Appendix B – KWHA Literature Review

Title	Purpose/Background	Relevant Principles and Provisions
Shire of Wagin Town Planning Scheme (TPS) No.2	Shire of Wagin TPS No. 2 was gazetted in 1999 ** Each Local Government Scheme in the 4WDL are has similar definitions and zones which are standard. Each Schemes definition and use class terms may differ slightly. This Literature review will not review detail that is similar for each Local Government.	Section 2.2 Local Reserves include: (d) Civic and Community (i) To provide for a range of community facilities which are compatible with surrounding development; and Page 8 (ii) To provide for public facilities such as halls, theatres, art galleries, educational, health and social care facilities, accommodation for the aged, and other services by organisations involved in activities for community benefit. (e) Social Care Facilities (i) Civic and community facilities which specifically provide for a range of essential social care facilities such as accommodation for the aged, aged care, youth camps, childcare facilities and indigenous care. ZONES (1) Zones are shown on the Scheme Map according to the legend on the Scheme map. The Scheme has 5 zones including Residential, Commercial, Service Commercial, General Industry, Rural - (a) Residential Zone (a) The Residential zone is to be used primarily for single houses on separate lots. (b) Other uses listed in Table 2 may be permitted at the discretion of the local government if they are considered to be an integral part of the residential environment and where the local government is satisfied that they will benefit the community and not result in being a nuisance Relevant use classes aged & dependent persons dwelling -means a dwelling designed for the accommodation of aged or dependent persons and may incorporate appropriate provisions for the special needs of their prospective occupants ancillary accommodation means self contained living accommodation on the same site as a single house and may be attached or detached from the single house existing on the lot cabin means a dwelling forming part of a tourist development or caravan park that is - (a) an individual unit other than a chalet; and (b) designed to provide short-term accommodation for guests caretaker's dwelling means a dwelling on the same site as a building, operation or plant, and occupied by a supervisor of that building, operation or plant. Chalet means a dwelling forming part of a tourist development or caravan park that is - (a) a self-contained unit that includes cooking facilities, bathroom facilities and separate living and sleeping areas; and (b) designed to provide short-term accommodation for guests Guest house means a dwelling or part of a dwelling occupied by a person but containing rooms used to accommodate short-term guests for hire or reward. (Guest house has permissibility to be located in Commercial zone also) serviced apartment means a group of units or apartments providing – (a) self-contained accommodation for short-stay guests with no guest accommodated for periods totaling more than 3 months in any 12 month period; and (b) any associated reception or recreational facilities. short-term accommodation means premises providing temporary accommodation, either continuously or from time to time with no guest accommodated for periods totaling more than 3 months in any 12 month period. There is no specific term for key worker or worker accommodation.
Shire of Wagin Local Planning Policy	To provide clear parameters in relation to the Shire of Wagin's employee housing.	Group 1 Executive Housing – 2 Executive Houses Group 2 Other Staff Housing – 5 Other Houses

Appendix B – KWHA Literature Review

Title	Purpose/Background	Relevant Principles and Provisions
– A20 Employee housing Policy (Date)		
Shire of West Arthur		
Shire of West Arthur Strategic Community Plan 2017-2027	This document is the Shire's principal 10-year strategy and planning document and guides the development of other plans.	**Values Safety** - We will have at the forefront of all operations and future developments, the safety of our people and environment. **Sustainability** - We will make decisions based on the long-term sustainability of the Shire of West Arthur. **Vibrancy** - We will support and encourage a vibrant community and economy. Pro-active - We will be pro-active and innovative in order to respond and adapt to a changing world. **Viability** - We will maintain the viability of the Shire through good governance and supporting local businesses and agriculture Section 4.0 Community engagement outcomes summarized that 'More housing and accommodation would make the Shire a better place live.' The community would also like the Shire to focus on: • Increasing population. • Actively support economic growth and job creation including part time and full time and options for youth The SCP Six Key Themes include the following relevant goals: *Community Wellbeing Goal 1 –* The Shire of West Arthur will be a safe and enabling place to live with a strong sense of identity and a thriving, active culture Outcome 1.2 - People of all ages have the support they require to live and participate in the community. • Affordable housing will be available to enable people to live in our community. *Local Economy Goal 2 –* The Shire of West Arthur will be a vibrant, sustainable, and growing community with active business and agricultural sectors and well-maintained infrastructure. Outcome 2.1 - The business community will be DYNAMIC, GROWING AND DIVERSE providing employment and economic benefit to the Shire. • Light industrial land and infrastructure will be developed to promote light industry development Outcome 2.3 - The community will have a GROWING POPULATION which will support new business development • The Shire will be an appealing and attractive place to move to. • There will be a range of short stay accommodation options for visitors to use encouraging them to stay in and explore the Shire. • The Shire will be promoted to people outside of the Shire as a fantastic place to visit and live. • There will be a range of residential and lifestyle options available *Built Environment Goal 3 –* The Shire of West Arthur will have well maintained infrastructure that supports the community and the economy. *Governance and Leadership Goal 5 –*

Appendix B – KWHA Literature Review

Title	Purpose/Background	Relevant Principles and Provisions
		Through strong leadership and responsible, ethical management the best outcomes will be achieved in partnership with the people of the Shire.
Shire of West Arthur Local Planning Scheme No.2 (May 2007)	This Local Planning Scheme of the Shire of West Arthur consists of this Scheme Text and the Scheme Maps. The Scheme Text should be read with the Local Planning Strategy for the Shire.	The Shire of West Arthur Scheme No.2 includes 5 zones: • Residential • Commercial • Industrial • Rural Residential • Rural Town site of Darkan includes – • Residential zoned area is generally a density of R12.5. • Approximately 35 Rural Residential Lots. • Range of Recreation and Open space reserves, Railway and Public purpose reserves. • Commercial and Industrial zones. Townsite of Dowelling – comprises 11 rural residential lots and street block of Residential R10, with a range of Public Purpose lots. Adjacent to State Forest and Railway reserve. Dooranillin Townsite– Includes 20 Residential R10 lots, and a Rural Residential area, and several Commercial lots and public purpose and Public Open Space. Moodiarrup Townsite - includes 10 Residential R10 lots, 3 commercial lots, and 3 public Purpose reserves according to the scheme maps.
Shire of West Arthur Local Planning Strategy November 2006	The Local Planning Strategy is expected to be a central feature of the scheme setting out the Councils general aims and intentions for future long-term growth and change. Whereas the Scheme has a five-year time scale, the strategy may look ahead 10-15 years. The Local Planning Strategy will be particularly valuable in helping to guide and control pressures for change, which could affect the rural economy and environment. The strategy will lay down guidelines for the future pattern of settlement.	Relevant extracts from the Strategic Plan 5.1 Rural Land - Recognizes the potential for creation of Homestead lots subject to criteria including having access to a constructed road. Strategic Plan for Darkan: (a) <u>Residential</u> Existing residnetial lots in town adequate for popualtion increase over next 5 years. The predominant form of residential development will be for single houses, however there may be opportunity for grouped dwellings where the land is suitable for effluent disposal. Darkan does not have reticulated sewerage and is not idenitifed as a priority for this service. (b) <u>Rural Residential</u> Existing subdivided lots predominantly in the western section are included in this classification. The land is already subdivided into small holdings and has potential for change of use predominantly for rural – residential or hobby farms. Subdivision of the larger lots in this area could occur, with a recommended minimum lot size of 2 hectares. All the lots to be created by subdivision should be serviced with reticulated water supply for domestic consumption. <u>5.3 Rural Residential Land</u> The Council wants to promote lifestyle choice and population growth in the district. It support development of lot 3 of 56.7 hectares off the Quindanning- Darkan Road, just to the northwest of the town. The Scheme proposed Lot 3 includes in the Rural Residential Zone for subsequent subdivision into rural small holdings.

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Title	Purpose/Background	Relevant Principles and Provisions
Shire of Williams		
Shire of Williams Strategic Community Plan- Revised 2020	The Shire of Williams Strategic Community Plan reflects a vision for the future and is the principal strategic guide for future planning and activities going forward.	A strategic objective has been developed for each of the four identified key areas of community interest: • Economic • Social & Cultural • Land Use & the Environment • Civic Leadership (previously known as Organizational Performance) *To support industry and business development through the development of sustainable infrastructure and investment opportunities* OUTCOME 1- Develop infrastructure and investment that is sustainable and an ongoing legacy to the Shire. ED 1.1 Develop and promote the Marjidin Industrial Estate to offer affordable and appropriately serviced lots. ED 1.3 Promote land availability within the Shire for residential, industrial and commercial development. ED 1.3 Promote land availability within the Shire for residential, industrial, and commercial development. ED 1.4 Encourage business and community groups' initiatives to promote the Shire as a place to live, work, play and invest ED 1.5 Advocate, promote and encourage industrial development that will offer employment opportunities for our community. ED 1.6 Consider future land acquisition for the Shire for recreation, commercial, residential, or industrial purposes OUTCOME 2 To have appropriate levels of housing to cater for population retention and growth. ED 2.1 Plan and develop relevant aged housing suitable to meet needs of growing population. ED 2.2 Investigate the feasibility of the establishment of short term, backpacker accommodation ED 2.3 Promote and support the availability of accommodation suitable for young people, families, and retirees. OUTCOME 3 Effective collaboration and shared services with other relevant Local, State and Federal Government agencies, industry, and community organizations CL 3.1 Participate in, and actively collaborate with, the 4WDL Voluntary Regional Organization of Councils on resource sharing opportunities. CL 3.2 Foster, nurture and develop strategic alliances with local governments, Major industry, and government agencies.
Shire of William Town Planning Scheme No.2		Williams town site includes a range of Residential zone densities including R2, R10, 12.5, R 20 and R30. A range of Rural Residential zones, a ribbon of Commercial development, and Industrial zones. Large areas of Public Purposes. Quindanning Townsite is large made up of lots reserved for Public purpose. Includes a couple of lots zoned Residential R5 and 4 lots zoned Residential R2.5. Schedule 4 of the Scheme outlines the subdivision and development provisions for each of the rural residential areas.
Shire of Woodanilling		
Shire of Woodanilling Strategic Community Plan 2012-2022	In 2022 the Shire of Woodanilling will be a Shire that is energetic and progressive with a strong connection to its community	*Community Facilities & Community Well Being* • To provide facilities and amenities that meet the communities needs and expectations within Council's ability to fund from rates and external sources • To ensure access to high quality facilities and services that the community is proud to use and promote.

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Title	Purpose/Background	Relevant Principles and Provisions
	and environment. It will be a Shire that embraces its independence and encourages the sustainable development of the natural environment through ways that value the cultural heritage and sense of place provided by living in Woodanilling.	• To deliver a quality of life to our residents that is based upon sound environmentally sustainable principles and is socially productive & growing. *Environment* • To protect and enhance the key natural and cultural assets of the Shire. *Civic Leadership Law and Order, Customer Service & Governance* • To attract and retain quality Councillors and Staff. • To have Councillors who are trained and qualified in their roles and responsibilities • Within the scope and ability of the Council, provide a safe and crime free community. • To be responsive to the expectations of our clients and users in the area of customer service • To promote excellence in customer service. *Economic Roads & Transport* • To maintain a quality road transport network which is safe and accessible to all users Theme 1 Social CF.10 Community Housing – development of social and affordable housing, including housing for the well-aged.
Shire of Woodanilling District Zoning Scheme No 1		Woodanilling townsite includes a range of low density residential, (R2 – R10) and local Rural lots. Local Rural Zone - To provide for a mix of residential and business-related uses in a rural setting which achieves a high standard of visual amenity, facilitates landscape protection and conservation and will not cause land use conflicts or adverse impacts on the amenity and character of the zone. The Local Rural zone provides opportunity for a range of residential type uses. 5.12.9 The development of more than one single swelling house within the Local Rural zone requires the approval of Council. The Scheme includes a definition 'Transient Workforce accommodation' "transient workforce accommodation" means a dwelling for the temporary accommodation of transient workers and may be designed to allow transition to another use or may be designed as a permanent facility for transient workers and includes a contractor's camp and dongas.
Shire of Dumbleyung		
The Shire of Dumbleyung Strategic Community Plan 2022-2032	'Transforming our Future by Delivering Jobs & Growth' The new Shire of Dumbleyung Strategic Community Plan intends to tackle issues of gradual decline in population and the economy head on. It has been prepared as a basis for shifting the dial in a positive socio-economic growth direction. It is an action-based	The Strategic Community Plan Vision is to 'Transform the Dumbleyung Shire Economy to Deliver Jobs & Population Growth'. *Small and Medium Enterprise (SME) Business Enhancement Plan* The Shire of Dumbleyung has a reasonably strong SME sector given its population size. A barrier to encouraging additional trades and professional operators is the lack of key worker housing. The same employee attraction and retention challenge is faced by the farming sector. Dumbleyung operates in a 'failed market'. Meaning the market value of new housing infrastructure is usually worth less than the cost of building the same. Banks and lending institutions do not allow lenders to borrow funds to build new housing infrastructure unless they have a significant deposit e.g. upwards to 50%. Government intervention is required to underwrite a program to increase the number of new 3x2 and 4x2 housing stock in both towns which would also accommodate teachers and police. The Shire could own and lease out these dwellings once developed, creating an additional revenue source for the Shire

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	Plan that has specific projects and initiatives identified, all of which aim to make a significant difference to the Shire of Dumbleyung economy (and community). This Plan will become the primary strategic roadmap for the Dumbleyung Shire Council to focus its attention and resources towards pursuing activities that will drive economic growth thereby assuring our community's future. This is a proactive, project and activity based Strategic Community Plan. It is the combination of the Plan in its entirety that needs to be achieved if the future of Dumbleyung is to be assured.	Another barrier facing increased business attraction into both towns is a lack of developed commercial land for light industrial use. Funds are required to establish serviced blocks in both towns and/or industrial shed infrastructure to further entice lower cost entry new business growth opportunities. The establishment of a SME Business Enhancement Plan would flesh out these projects and other business support opportunities e.g. business networking and professional development forums. *Dumbleyung Short Stay Accommodation Plan* There is a significant shortage in quality short term (overnight) accommodation options in Dumbleyung. With the aim for Dumbleyung to become a tourism destination, visitors will need to be accommodated during their stay. Unless this accommodation shortfall is addressed, visitation will predominately become day trip experiences resulting in significant lost economic opportunity. The Shire is in a good position to identify suitable land holdings within the Dumbleyung township that offers sufficient size and location to establish a private or publicly owned lodging. Once a suitable land allotment has been identified, the Shire would determine the best arrangements to progress including site access, planning, scoping, design and promotion. This could also include resolving any tenure issues if access is constrained.
Shire of Dumbleyung Local Planning Scheme No.1		The Town sites of Dumbleyung and Kukerin include a range of zonings including Industrial, Commercial, Local Rural Zone, Residential zone with a range of densities supported with split coding R10/30. No specific definition of worker accommodation.
Shire of Lake Grace		
The Shire of Lake Grace Strategic Community Plan 2017 - 2027	This Plan outlines how the Shire will, over the long term, work towards a brighter future for the Shire of Lake Grace community as it seeks to achieve its vision inspired by the community's aspirations for the future. Looking to the future, the Strategic Community Plan will influence	*Economic Objective - A prosperous agricultural based economy, supporting diversification of industry* A strategically focused, unified Council functioning efficiently. Topics are cross referenced with Strategic Outcomes Community housing 1.2.1 | 2.1.1 | 4.1.2 Employee housing 3.1.1 | 4.2.3 Independent living units 2.1.2 | 2.2.2 Outcome 1.2 A diverse and prosperous economy 1.2.1 Advocate for improved communications and support infrastructure 1.2.2 Support local business and promote further investment in the district

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	how the Shire uses its resources to deliver services to the community. The Plan forms the primary driver for all other planning undertaken by the Shire.	*Social Objective A valued, healthy and inclusive community and life-style* Declining population was identified as a threat with its potential for a negative impact on volunteer groups and the community. The sporting and community facilities across the district are highly valued with a desire for further maintenance and development. Outcome 2.1 An engaged, supportive, and inclusive community 2.1.1 Community services and infrastructure meeting the needs of the district 2.1.2 Maintain and support the growth of education, childcare, youth and aged services *Leadership Objective Strong governance and leadership, demonstrating fair and equitable community values* Outcome 4.2 An efficient and effective organization
Shire of Lake Grace Local Planning Scheme No.4 (Gazetted in 2007)		Lake Grace Townsite includes a range of zones Service Commercial, General Industry, Rural Residential and Residential zone with a density of predominantly R20. Newdegate Townsite includes General Industry, Service Commercial, Commercial and Residential R20 land. The town surrounded b local scheme reserves including conservation and recreation and a range of public purpose. Lake King townsite is includes General Industry, Commercial and two street blocks of Residential R20 zoned land. Varley Townsite is largely General Industry zone surrounded by General Agriculture zone, Six commercial zoned lots, and 19 Residential lots zoned R20.
Shire of Lake Grace Local Planning Strategy June 2007		*4.2.2 Housing* *Key Issues, Planning Implication and Position Statements – Residential land* • Despite a population decline the number of dwellings has increased mostly due to the decrease in average household size over the past 30 years. Should this trend continue even if populations continue to decline sufficient serviced residential land is needed to address the demand. • Ageing population is expected to increase the demand for centrally located higher density residential development. • Demand for housing varies according to economic conditions. When the economy is strong there is a shortage of housing in all townsites and therefore there is need for sufficient supply of suitably zoned and serviced land – particularly if a new industry is established. • A significant portion of the housing stock is dated and in need of replacement. Some housing providers are planning for sale of old stock and development of new stock on vacant land in townsites. There is need to provide opportunity for the redevelopment and consolidation of existing residential areas where old housing stock is proposed particularly centralized to town. *Vision/Objectives* To ensure a sufficient supply of suitably zoned and serviced residential land in each of the Shire's main settlements to accommodate future housing growth and to provide for housing choice and variety in neighborhoods with a community identity and high levels of safety, accessibility and visual amenity.

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		Strategies • Direct majority of new housing in the Shire to Lake Grace, Newdegate, Lake King and Varley townsites. • Ensure sufficient amount of suitably zoned a serviced Residential land in each of the Shires main townsites which provides a wide choice of lot sizes and housing types to suit the needs of all sectors of the community including that required to accommodate the elderly in convenient and central locations. • Continue to support public housing in each of the main settlements. *Actions (include the following)* • Support the development of innovative housing options for the elderly such as transportable granny flats • Work with Homes west and the Government Employee Housing Authority to plan for the provision of additional housing in the Shires main settlements. (Ongoing) • Continue to pursue a housing development program for Council Staff, aged persons and joint venture community housing as provided for in the Shire of Lake Grace Principles Activities Plan (July 2002 and June 2007) (ongoing) *4.3.2 Commerce and Industry* Summarised as: The variety of commercial enterprises and industrial activities in the Shire of Lake Grace service the agricultural sector located towns. Current shortage of zone and serviced industrial land constraining economic growth. 'Vision- Development of a diversified range of commerce and industry in appropriate locations which provides significant employment opportunities and reduces the local economy's dependency upon the agricultural sector.' *Strategies include* • Direct the majority of new commercial and industrial development to the Lake Grace, Newdegate, Lake Kind and Varley townsites to build upon existing infrastructure in these settlements and maximize efficiencies of operation and economies of scale. • Ensure that sufficient amounts of commercial and industrial land are provided in appropriate locations in each of the shires main settlement sot accommodate new commercial and industrial activities. • Address the current critical shortages of suitably zoned and serviced industrial land in the Lake Grace and Newdegate townsites. • There are eight gazette townsites in the Shire of Lake Grace. Lake Grace , Newdegate, Lake King and Varley are the only ones that have been substantially developed with most development having occurred in the last 40 years. The remaining townsites have not been developed to any great extent and are not proposed to be developed any further in the future. Lake Grace is District Service Centre Newdegate, Lake King and Varley area Local Service Centres. The local planning strategy outlines in detail the potential areas in each townsite for review and redevelopment opportunities and indicates the development areas on each respective Townsite Development strategy.
Relevant or Associated Strategic Documents		

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Short Stay Tourism Accommodation Plan Shires of Wagin, West Arthur, Dumbleyung & Lake Grace August 2022	The study was to report on: •Existing tourism accommodation facilities in each Shire (i.e. supply). • The quality of existing tourism accommodation facilities benchmarked against industry standards. • Gaps in quality and/or quantity within short stay tourism accommodation. • The potential overnight market if increased and/or improved quality accommodation facilities were established in each Shire (i.e. demand). • The potential economic impacts (benefits), and • The estimated cost to establish new or expanded short stay tourism accommodation (SSTA) in each Shire.	This report provides recommendations and an action plan to assist the Shires to advocate for investment and development of improved SSTA to grow tourism and the economy. **Economic Impacts** The potential economic impacts from LGA investment in SSTA are significant. Each Shire could potentially benefit from 2-4 new tourism jobs, 1-2 new non-tourism jobs, additional visitor spend of $2.0~$3.0M, and between 4,000~18,000 additional visitors. Preliminary analysis of investment in SSTA indicates a positive benefit-cost ratio and a positive net present value, which supports advancing to business cases, grant applications and land planning. **Recommendations** Recommendations are aimed at increasing the quality and quantity of SSTA to stimulate growth in visitation, enterprise development, and the opportunity to re-position WWDL's tourism offering. Action plans for each Shire and WWDL are presented for implementation commencing 2022-23. **Observations on WWDL's Existing Supply of Short Stay Accommodation** • 66% of WWDL's bed capacity is caravan park-campgrounds; • 25% of the bed capacity is hotel-motel; • Adding new or improved 3-star hotel-motel facilities, or 'boutique' scale 3-star tiny homes /designer pods would increase med-high budget visitors and significantly grow visitor expenditure and employment across the region. • Lake Grace and Wagin host 73% of the region's short stay bed spaces. Adding park cabins, B&B's, holiday homes/rooms and hotel-motel expansions would help grow med-high budget visitors and increase expenditure and employment in the towns of Lake Grace and Wagin. • **West Arthur** and **Dumbleyung** have the lower bed capacity, dominated by caravan parks-campgrounds, and limited hotel-motel capacity. Adding new or refurbished 'quality' hotel-motel, park cabins, B&B's and lodge-backpacker facilities would grow visitation to the towns and improve support for hospitality and services. • **Lake Grace** has a 'near-full complement' of short stay accommodation, with a distinct gap in lodge / backpacker facilities. It does have some of the 'newer' accommodation facilities affording higher standards to visitors. The addition of 'quality' lodge-backpacker (e.g. worker facility), expanded caravan park with cabins, more holiday homes / B&B's and campgrounds would enable significantly higher growth in visitors • **WWDL** could add a collection of tiny homes / designer pods spread across the region, located at picturesque or tranquil sites, and leverage the 'high quality' facilities to attract a larger share of med-high budget visitors, while dispersing visitors across the region (i.e. showcasing natural advantages such as lakes, rocks, vistas, serenity & nature). The report suggests a total of additional short stay accommodation over the WWDL area including: • 65 Motel Rooms • 45 Hotel Rooms • 21x2 bedroom park cabins • 12 x1 Designer Pods • 65 Caravan Sites • 30 Campsites

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		The report provides action plans for each LGA/town to provide these facilities. Overall the Report reveals an economic benefit of additional visitors based on increasing the number of beds by 354 over 10 years, included a combined visitor and flow on spend of 17 million dollars as a result.
Building the good life Foundations of Regional Housing Regional Housing Institute May 2022	This document, Building the Good Life: Foundations of Regional Housing, aims to assist policymakers, industry and regional leaders to establish placed-based initiatives rather than take a 'one-size-fits-all' approach to address the current pressures being felt in many regions.	Using key statistical data, the analysis found six clusters of housing markets, five of which are predominantly rural and regional markets. The six groupings are: 1.Stalled: (Small, inland and low-cost) 2. Volatile: (Small, low-cost and volatile) 3. Stable: (Mid-sized, agricultural - Murray- Darling - stable) 4. Coastal: (Larger, average-cost, coastal QLD and WA) 5. Growth Zone: (Peri-urban, urban, major regional cities) and 6. Most Expensive: (Sydney and Melbourne) Building the Good Life: Foundations of Regional Housing confirms that the five regional housing markets are distinctive – not only in relation to capital city markets, but also in relation to each other – with many marked by a significant risk of market failure. The result – as illustrated by the literature – is that regional housing is often unaffordable in particular for low-income earners. The challenges in regional housing are also potentially an impediment to economic growth. Research firmly points to the conclusion that Australia will be a stronger, more prosperous nation if our regions are stronger. To optimise growth in regions, the recommendations of Building the Good Life: Foundations of Regional Housing include: • Collecting timely statistics on housing need (including supply and demand) and housing conditions generally in rural and regional areas; • Improving the promotion and targeting of housing initiatives to rural and regional centres; The nature and scale of market failure in regional housing markets is both substantial and profoundly impactful. It has a number of dimensions, including: • The total absence in many places of available housing for incoming workers to a country town or other regional settings; • Sustained unaffordable housing, resulting in poor living conditions and – potentially – overcrowding; • Long commuting times for workers in some regional centres, forced by price to live some distance from their place of work; • Under-investment in the housing stock, resulting in under maintained dwellings and housing that is a risk to human health; and • The decline of some housing markets results in property owners 'trapped' and unable to realise the capital they have invested in their home.

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Title	Purpose/Background	Relevant Principles and Provisions
		Sweden, Finland, Denmark and Norway, stalled housing markets have been linked to lost development opportunities, population loss, an ageing of the existing population and the loss of young people, as well as a housing stock that is either declining in value or abandoned. Previously published work reviewed for this project focused on the steps that should be taken by Australian governments to better address the housing needs of Australians living in regional settings, these included: • Recognising that housing affordability is a major challenge for particular groups in rural and regional Australia. • Introducing specialist finance for rural and regional areas in need of 'top up' assistance; • Focusing on the ageing of local populations –, generating growing demand for well-located, smaller-scale, medium-density and often low-cost housing; • 'Activation' of local housing markets by State and Local governments; • Boosting local employment prospects in these regions, and thereby raising the demand for and affordability of housing; • Collecting timely statistics on housing need (including supply and demand) and housing conditions generally in rural and regional areas; • Improving the promotion and targeting of housing initiatives to rural and regional centres; • Designing housing programs in ways that meet the needs of regional centres. This may mean the development of programs that require smaller budgets and have less onerous application processes. Stalled Markets policy considerations The low (if not 'stalled') level of development activity arises because: local demand is of insufficient scale to warrant a local building and development industry; and, construction costs exceed the low average value of local housing, thereby constraining any local access to housing finance. • With no local industry to add to and update the existing stock, the impetus of such development rests with local households who face constrained access to finance. A Regional New Home Loan Guarantee (see RAI Discussion Paper, Building the Good Life) should be considered for these kinds of markets. • Relevant stakeholders – councils, community housing providers, build-to-rent operators or state governments – may consider aggregating housing demand over several communities to create sufficient scale to bring about housing development that is commercially feasible. • Modular, offsite, lower-cost housing construction should be considered to reduce the costs and constrained trade labour availability associated with building in-situ in these more remote locations. • State and Federal policy makers can consider overseas examples of strategies and actions to both incentivise and enable rural and regional local governments to take positive steps to encourage additional housing provision.

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Title	Purpose/Background	Relevant Principles and Provisions
		• State and local policy makers can consider developing strategies focused on enabling older people living in rural and regional areas to age in place – current housing mix in this cluster provides few options to 'downsize' to medium-to-higher density (unit or townhouse) dwellings. All levels of government – Federal, State and Territory and, Local governments – as well as investors, industry and regional leaders have a role to play in responding to and alleviating regional housing market pressures. This report – its typology of regional housing markets and the associated policy considerations – is designed to assist stakeholders to be effective in addressing the challenges faced by regional housing markets. Failure to recognise the distinct regional housing markets in Australia and respond accordingly will see the current pressures continue to escalate, resulting in current residents being priced out of the market in some clusters, regional economic growth constrained, a further tightening of the rental market, and the most vulnerable in our community bearing the brunt of the housing challenge.
Building the Good Life RAI Discussion Paper: Meeting the demand for regional housing 2021	This discussion paper highlights the different drivers of housing problems in different parts of regional Australia. These different drivers mean that the responses, too, need to be tailored to each region if they are to be effective.	The shortage in regional housing is constraining local economic growth and development, preventing regions from meeting their full potential and contributing to the post-COVID recovery. There are jobs going unfilled simply due to a lack of suitable housing. Housing shortages are present not only in high-growth regions but right through to smaller (typically inland) areas where population growth has been minimal, if not negative. In this second type of regional housing market, activity has stalled because of the small scale of these markets and because local households face constrained access to housing finance. These regions also face issues with the overall quality of local stocks, again due largely to constrained access to finance. The RAI estimates this issue affects at least 20 per cent of regional (mainly inland) local government areas (LGAs). Smaller local governments (in areas where private development isn't occurring) often lack the financial capacity to invest in local housing infrastructure. Local governments should consider accessing funds (concessional loans, grants and equity investments) from National Housing Finance and Investment Corporation's (NHFIC)'s lending facility, the National Housing Infrastructure Fund, for local housing infrastructure to accelerate new housing supply. CREATING SCALE, ATTRACTING INVESTMENT Regional communities can take action locally to overcome this issue of small scale. Groupings of regional LGAs can aggregate new housing demand across their regions to create scale that may be sufficient to attract commercial housing investment and development. Specifically, aggregated demand for housing can be translated into an investment opportunity through an appropriate investment vehicle. Australian Housing and Urban Research Institute (AHURI) research suggests that an unlisted residential property fund is one such vehicle to attract institutional or private-equity investment. Institutional and private equity investors are increasingly open to investing in housing as the returns (the rents) have the potential to provide a sufficient and stable income stream. In attracting this type of investment, the structure of the fund is critical, as well as its management (it must be managed by an experienced fund manager). The actual properties and tenancies borne out of the investment

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Title	Purpose/Background	Relevant Principles and Provisions
		need to be managed by an experienced property manager. Finally, the returns – the rental yields – must also be sufficient
Foundations for a Stronger Tomorrow State Infrastructure Strategy Housing Chapter Government of WA /Infrastructure WA July 2022	This Strategy focuses on areas that require the greatest level of government attention and investment: homelessness, social and affordable housing, and regional housing.	The following paragraphs are quoted or summarized from the Housing Chapter and are relevant in providing context the KWHA. • The availability, affordability and appropriateness of housing was consistently raised as a high-priority issue in the regions, heightened by buoyant economic conditions and the impacts on their ability to attract and retain a skilled workforce. In response, a new sub-recommendation draws attention to the need for government intervention in certain regional areas. • The availability of fit for purpose key worker and government officer housing is critical to respond to service need, and positively contribute to regional economic activity and livability. Housing is an important, and often limiting, factor in attracting and retaining employees to regional areas who, in turn, support local economic activity and deliver government and community services such as health, policing and education. • The WA Housing Strategy 2020–2030 defines affordable housing as housing that households on low to moderate incomes can afford to access, while meeting other essential living costs. • A lack of affordable rental housing targeting key and essential workers, including childcare, retail, service industry, tourism and agricultural workforces, impacts on service delivery and the overall economy. It is an area of particular concern for regional housing sector stakeholders. Key worker housing has been provided by state and local government and CHOs, but this occurs on a discrete, project basis rather than through formal programs. • Many factors contribute to regional housing market failures in these locations, including inconsistent land supply, high costs of living and development, more transient community members seeking access to rentals rather than homes to purchase, limited investor pools and more difficult commercial project and purchaser lending criteria. Consequently, many regional areas are reliant on government participation through land development activity, as well as other interventions such as through housing delivery and management programs. • The state government provides affordable rental housing to government officers and some non-government organisation employees through its regional officer housing programs, and a related home ownership incentive scheme. The Department of Communities owns, manages and leases around 5,100 Government Regional Officer Housing (GROH) properties for key public sector workers in over 250 regional locations across WA. Just over half are owned, and the other half are leased. Officer housing is also owned and managed on a smaller scale by other state agencies, including by the WA Country Health Service, WA Police and Main Roads WA. The significant proportion of government employee housing, while essential for meeting service delivery needs, can sometimes contribute to local housing market distortions. In some locations, employers, including local government and resource, tourism and agricultural businesses, provide housing or housing subsidies as a component of employment conditions. There are many smaller businesses, however, for whom this is not possible. Government participation in housing non -government key workers also occurs, on a discrete project basis. **Recommendations** Regional housing plans

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Title	Purpose/Background	Relevant Principles and Provisions
		Place-based analysis of housing needs, conditions, market activity and active housing programs and providers is critical to understanding and appropriately responding to housing priorities. The preparation and periodic refreshment of housing plans will enable strategic, targeted housing outcomes for each region. Recognising the challenges of housing across regional areas, these housing plans will be useful for capturing the unique housing drivers in cities, towns and communities across WA. The housing plans will provide a consistent evidence base to apply to future investment proposals, housing programs, local planning instruments and land and housing supply. Data that informs the housing plans should be maintained and be accessible for use by stakeholders. The plans should: • be prepared for each WA region, including the Perth metropolitan area • reflect and respond to settlement patterns, with a focus on regional centres • respond to community, housing, land supply and economic characteristics, barriers and opportunities • capture government and non-government housing activity, providers, asset types and programs • provide a vehicle to engage with the local community, stakeholders and service provider priorities and perspectives • establish meaningful place-based housing targets and objectives • inform asset management, including dwelling type and number, as well as renewal and maintenance activities, which in turn, will improve future strategic asset plans and business cases • influence future housing sector strategies and policies, procurement and project delivery models. • include housing program data to inform provision of supporting wraparound services. Recommendation 71 Improve long-term planning and inform infrastructure investment for social and affordable housing by: a. preparing and publishing 10+ year regional housing plans for each WA region, including the Perth metropolitan area, to provide a consistent evidence base and drive better housing outcomes across the state, to be refreshed at least every 5 years b. conducting an initial regional housing plan pilot to resolve housing data coordination and management challenges, define requirements and establish methods of stakeholder input. Regional housing outcomes • Housing market conditions are such that government participation in land supply and housing provision is essential in some regional locations. • For these communities, the lag between identification of need and the prioritisation of a suitable program response can be a source of great frustration and local disruption, both socially and economically. • The availability of fit for purpose key worker and government officer housing is critical to respond to service need, and positively contributes to regional economic activity and liveability.

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Title	Purpose/Background	Relevant Principles and Provisions
		• Government participation in housing key non-government workers should be considered only where significant local housing issues warrant a discrete project response. However, there are opportunities to more holistically consider where and how government should intervene, and the costs and benefits of a range of models that could be applied. Options could include accelerated land supply, financing and partnering opportunities and direct housing provision. Greater clarity about roles and responsibilities across government will enable more timely development of any future projects, and the exploration of innovative partnerships would assist timely responses. The availability of sustained social and affordable housing investment and mechanisms in appropriate locations will also influence the need for discrete key worker projects in the future. Respond to the need for affordable and available housing in regional areas by: a. establishing the principles, criteria and models for government housing intervention in regional locations that are demonstrating market failure, informed by regional housing plans. b. independently reviewing all regional officer housing assets and programs across the public sector, including the Government Regional Officer Housing program. c. investigating innovative models for implementation that would provide high-quality regional officer and other key worker housing, while managing the cost to government.

4WDL Worker Housing Analysis

STAKEHOLDER ENGAGEMENT

- Summary of Outcomes

NOVEMBER 2022

JEPLANNING

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Appendix C: Summary of LGA Survey

Appendix D: LGA Survey Outcomes in Excel

1. Stakeholder Engagement Objectives

Objectives of the Communication Framework in preparation for the Key Worker Housing Analysis (KWHA) are to:

- Inform recommendations from stakeholder representation as engaged through the process.
- Engage effectively with relevant stakeholders to collect qualitative data to support and expand on findings from quantitative data. Stakeholders include the VROC Shires, The Wheat belt Development Commission, State Government Service Agencies, Local businesses, and Industry.
- Recognise and strengthen the shared values and processes between stakeholders.
- That all stakeholders understand their role under the engagement framework (Table 1), which includes:
    - Informing
    - Consulting
    - Involving
    - Collaborating
    - Empowering
- Create a portal for ongoing communication with stakeholders.
- Avoid misinformation or speculation.
- Improve efficiency with study timeframes.
- Provide accurate information about the study outcomes.
- Create pathways for stakeholder interaction and feedback that are open and transparent
- Document and collate feedback to inform study recommendations.
- Provide a transparent process and consistent messages to engender confidence within/in the VROC/4WDL subregion.

2. Stakeholder Engagement Activities

Stakeholder engagement underpins the project outline.

Table 1: Stakeholder Groups

Groups	Consultation Level - keywords	Communication methods/Terms of Reference
<u>Project Control Group –</u> • Wheatbelt Development Commission officers • Shire of Dumbleyung CEO • Consultants (Project Management)	Involve Collaborate	• Confirm Project Process and Content • Confirm Objectives • Develop Key messages • Emails/Phone calls/Teams calls/Meetings • Teams Presentation • Confirm Recommendations • WDC to engage and seek support for State Government agency feedback on key worker housing demand and gaps for the next ten years (immediate and forecast).

<u>VROC Working Group</u> • Shire of Dumbleyung • Shire of Wagin • Shire of Lake Grace • Shire of West Arthur • Shire of Williams • Shire of Woodanilling (Steering Group)	Inform Involve Consult Collaborate Empower	Provide data, local knowledge and other technical information. Complete the survey/Questionnaire. All LGA's to engage local businesses and other key workers (& community stakeholders) to seek housing gap and expected key worker housing demand information for the next ten years (immediate and forecast) Emails/ and phone calls Teams Meeting/ Presentation
<u>State Agency/ Service Agency Stakeholders</u> • WA Country Health Services • Department of Community Services - GROH teams (representing WA Police, Education and Community) • Western Power • Water Corporation • Department of Planning Lands and Heritage • Development WA (RDAP)	Inform Consult Involve	Building awareness Gather views/information Emails/ and phone calls Feedback
<u>Business Community Stakeholders</u> • Industry • Farming • Commercial • Not for Profit • List to be developed by each Shire	Inform Consult	Gather views/information Survey Emails/phone calls Feedback

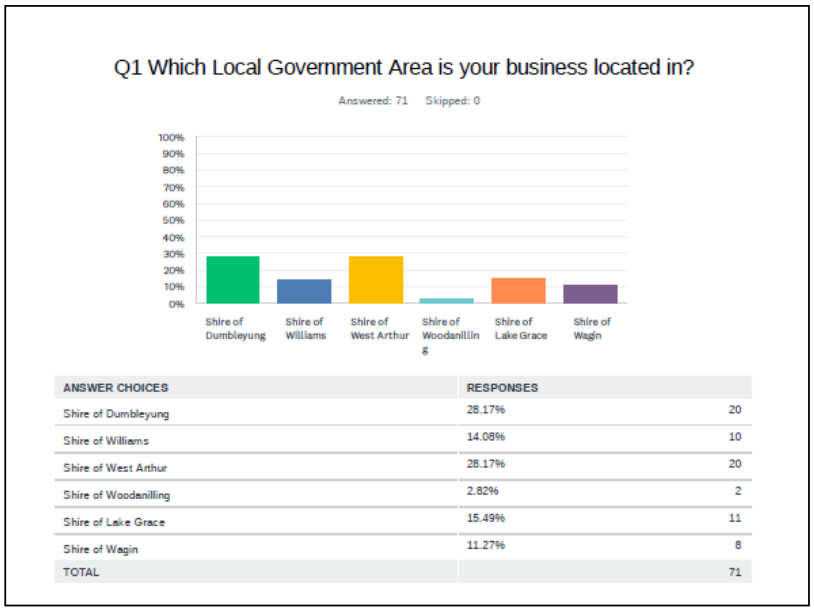
The collection of data informing Key Worker Housing Analysis was through the following engagement processes:

- Business Community Key Worker and Housing Survey (Business Community Stakeholders)
- Local Government Key Worker and Housing Survey (VROC working group)
- State Agency Stakeholder Questionnaire

3. Business Community Key Worker and Housing Survey Outcomes

The Business Community Survey (BCS) commenced on 18 October 2022 and ended at the close of business on 7 November 2022, with seventy-one responses received from across the 4WDL Shires.

Figure 1: Representation of Survey Responses by LGA



ANSWER CHOICES	RESPONSES	
Shire of Dumbleyung	28.17%	20
Shire of Williams	14.08%	10
Shire of West Arthur	28.17%	20
Shire of Woodanilling	2.82%	2
Shire of Lake Grace	15.49%	11
Shire of Wagin	11.27%	8
TOTAL		71

The BCS targeted business owners and farmers to help understand current worker and housing levels and identify any gaps. The Survey also sought information on housing provision and standards and included twelve questions in Table 2.

Table 2: Business Community Survey Questions and response rate

Business Community Survey Questions		Response Rate
Question 1	Which Local Government Area is your business located in?	71
Question 2	Name of Business/Farming Enterprise	69
Question 3	How many workers do you employ?	70
Question 4	Is there a gap/shortage in your workforce?	71
Question 5	If Yes to question 4 above, how many additional workers do you need?	46
Question 6	Where do your workers live?	67
Question 7	What are the housing needs or gaps for your employees?	63
Question 8	Does your Business supply housing/accommodation for your workers?	69
Question 9	If your business/farm supplies worker housing, please indicate the number and type of accommodation.	48
Question 10	Generally, do you consider that the condition and standard of the housing stock meet your employee's needs?	55
Question 11	If the answer to question 10 is Dissastified, please comment on what you consider is needed to meet the housing needs.	37
Question 12	What are the inhibitors for investing in housing infrastructure for your workers?	56

A summary of the Survey by each question is in Appendix A. Appendix B includes the summary for each Local Government. The Key Worker Housing Needs Analysis will include a comparative data analysis. This report will present a summary and findings.

Number of Workers and Workforce gaps

Most of the businesses that responded identified a gap in their workforce.

Figure 2: 4WDL Workforce shortages

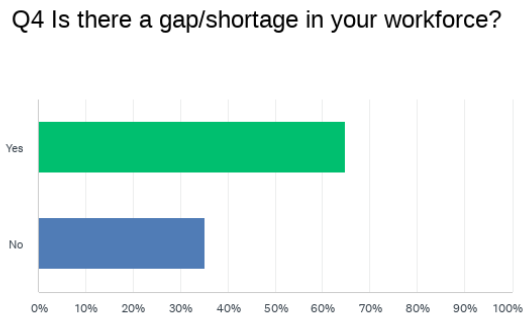


Table 3 below is the aggregate summary of responses to Question 2, Question 3 and Question 5, which helps to identify the number of employees and additional workers currently needed.

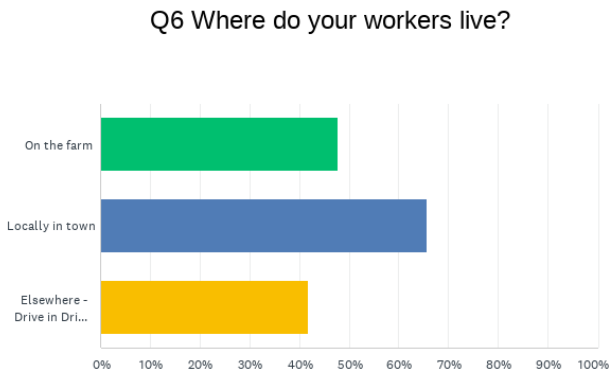
Table 3: Business Community Current Workers and Workforce gaps by Shire

Businesses in Local Government Area	Number of workers employed in the Shire through Businesses	How many additional workers do you need?	Number of Businesses Responding
Shire of Dumbleyung	122.5	25	20
Shire of Lake Grace	70	19	11
Shire of Wagin	66	7.5	8
Shire of West Arthur	151.5	18	20
Shire of Williams	88	20	10
Shire of Woodanilling	12	2	2
Total	510	91.5	71
The average number of employees per business	7.2	1.3	

Housing Supply, Location and Condition

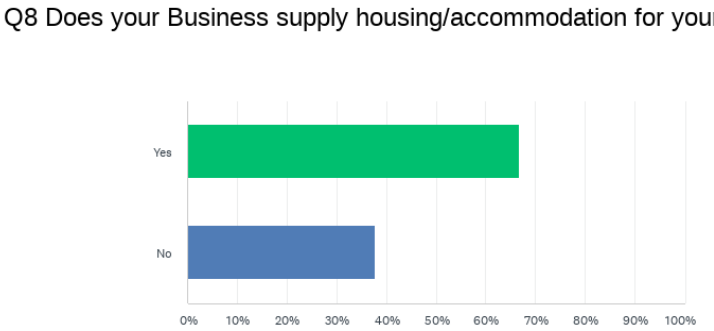
According to the survey results, most workers live locally in town, with a high representation of workers living on a farm and driving in and out.

Figure 3: Location of Worker Accommodation



Question 8 responses revealed that 66% of businesses provide housing for their workers.

Figure 4: Business-supplied Housing for Workers



Nearly half of the respondents provide housing for workers on farms, with around 30% on properties owned by the employer or the business in town, and approximately 20 % rent accommodation for workers. Some businesses provide several houses or rooms to accommodate staff. Business owners consider that more than half the workers are dissatisfied with the conditions and standard of the housing stock provided. However, it revealed that 47% of workers might be satisfied with their living arrangements.

Comments from business owners regarding housing needs for workers in order of frequency of response include:

1. More short-term worker housing is needed/as short-stay accommodation for seasonal workers.
2. Lack of availability of any housing.
3. Attractive housing options to suit a family and couples with backyards.
4. More rental availability is needed for smaller housing units/townhouses for single workers
5. Replace or upgrade older accommodation. Modernise houses.

6. Housing people in caravan parks or in dongas is undesirable.

The Inhibitors for Investment in Housing Infrastructure

The question was, ' What are the inhibitors for investing in housing infrastructure for your workers?' Below is a summary of the fifty-six comments received from the business community. The range of inhibitors is described with the most frequently mentioned in order being:

1. High cost of building
2. Lack of availability of property and building materials
3. Lack of Capital/Finance for investment

Table 4: Inhibitors for Housing Investment - Summary of key themes (separate Appendices for the detail in that one)

Key Theme	Type of comments	F
Lack of Capital/Financial	Investment needs to go to other areas of the business first.	12
	As a business owner would need a capital return on the investment	
	Available Capital	
	would be over-capitalising to build more on farm	
	It's more of a divestment than an investment.	
	Limited revenue streams	
Cost	Building Cost	23
	Ongoing cost	
	The price of transportable accommodation on the farm, together with power supply, plumbing etc…It all adds up. Buying housing in town is expensive and the quality of housing is not great	
	Rising farming costs	
Availability of Property and materials	Lack of affordable blocks or housing	15
	Availability of Materials	
Approvals	Difficult Approvals Process	2
	Lack of options and restrictions on what can be placed on blocks	
Inadequate Availability of Trades	Tradies to fix problems or builders to aid in repairs on additions	9
	time frame of getting accommodation built	
No incentive	no incentive to invest in housing and accommodation on farm or off farm. There are tax incentives and grants to build sheds/fences/water storage but not accommodation. Yes maintenance on Non-Primary residents is a tax offset but it isn't enough to undergo a massive overhaul/replacement of accommodation or invest in building more.	2
	Devaluation of housing in rural areas once constructed	
Connection to Services	Connection to power & water is also very expensive and limits where you can build (unless you go off-grid which is an expensive exercise).	2
Location/Access	Distance from town and keeping workers because of this fact	3
Lack of Town Amenity	positive direction and more enthusiasm from local shire / business owners and all rate payers towards how the town presents, assist and reduce red tape for building infrastructure within the town boundary.	2

	They found housing difficult to source and had to live out of town a little on a farm. This was fine as they had 2 cars but for some people this may pose a problem	
Standard of Accommodation to purchase/lease	better accommodation for them to feel valued and excited about going to work when they are in a comfortable housing infrastructure	5
	Lack of suitable housing in town for workers or public officers, professional staff or teachers 1	
	More families would be great too and so the need is for bigger houses as well as units.	
Housing Maintenance	the way housing/accommodation is treated, with the nature of some of the employees, I would not invest in housing any supply it. Dongas are sufficient and the best fit for the nature of our business	1
Seasonal Workers	It's only required seasonally for mulesing and accommodation other times is required for workers but depends on the number of lease blocks we farm thus this determines the number of workers needed and accommodation required.	2
Declining Population	why invest in bricks and mortar in a town that generally has a declining population.	3
	No capital growth in housing	

4. Local Government Key Worker and Housing Survey Outcomes

The 4WDL Worker Housing Survey – Local Government Information supported the data collection process from each local government in the 4WDL. All six Shires completed the Survey to the extent that information was available.

Table 5: 4WDL Worker Housing Survey Questions

4WDL Worker Housing Survey – Local Government information	
Question 1	Which LGA do you represent?
Question 2	Based on rates information how many dwellings are located in residential zones?
Question 3	Based on rates information how many dwellings are located in Rural areas?
Question 4	Based on rates information how many dwellings are located in other zones?
Question 5	Based on building licence statistics, please provide the number of dwellings approved in townsite/residential areas each year since 2012.
Question 6	Based on building licence statistics provide the estimated development cost (and year) for the 10 most recent dwellings constructed.
Question 7	List known vacant or underutilised land parcels in townsite areas. Please list the location (lot details) and indicate on mapping the following details of the vacant or underutilised land.
Question 8	Are Shire owned properties rented out?
Question 9	What is the current weekly market rental value for Shire properties? Please list properties and associated rental values in the comment box below.
Question 10	Please list the main commercial/industrial businesses in the Shire to be forwarded the LGA led Business Community Survey (details of Survey to be provided for circulation)
Question 11	What are the current housing needs and gaps for Shire workers? What are the estimated future needs going forward 10 years?
Question 12	In your opinion what is one major inhibitor restricting the investment in new housing in your Shire?

A summary by LGA is included in Appendix C. Appendix D is a series of tables summarising the responses, some of which are discussed below.

Number of Dwellings and Building Trends

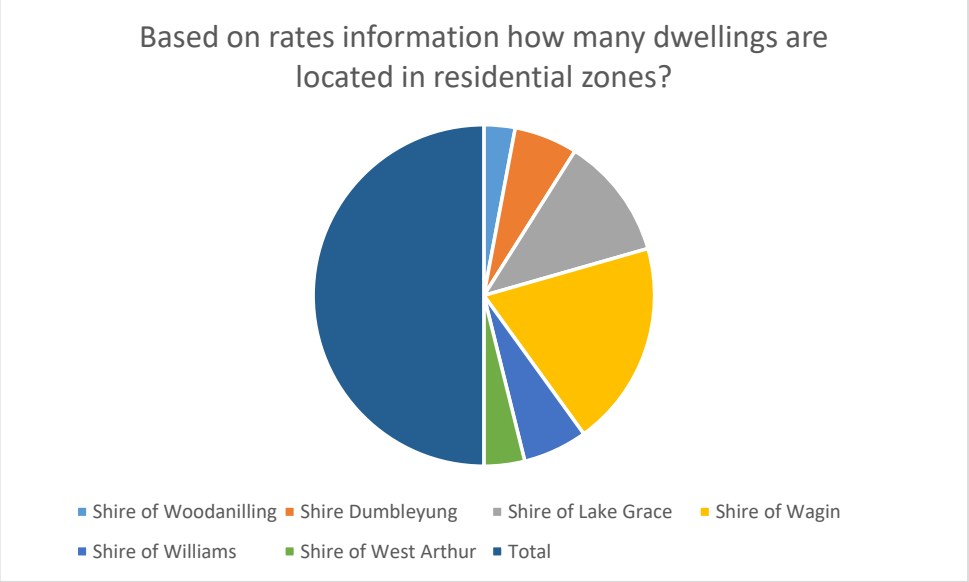
The responses to Questions 2-4 are summarised in Table 6 below.

Table 6: 4WDL Total Dwellings based on LGA Rates data

Which LGA do you represent	Based on rates information how many dwellings are located in residential zones?	Based on rates information how many dwellings are located in Rural areas?	Based on rates information how many dwellings are located in other zones?	Total Dwellings
Shire of Woodanilling	95	Not provided	0	95
Shire Dumbleyung	193	177	0	370
Shire of Lake Grace	373	548	42	963
Shire of Wagin	626	127	0	753
Shire of Williams	196	204	36	436
Shire of West Arthur	124	380	2	506
Total	**1607**	**1436**	**80**	**3123**

Table 6 above shows that 51 % of total dwellings are in residential zones. Figure 5 below identifies the development spread between townsites within the 4WDL area.

Figure 5: Dwellings in Residential zones and Building Trends



Building activity in the 4WDL area is documented from building licence statistics. Based on these statistics, the number of dwellings approved in the 4WDL Shires has averaged 11.5 per annum since 2012.

Table 7: Building approvals in Residential Areas.

Dwellings approved in Residential/Townsite areas 2012- 2021											
Local Government	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Shire of Woodanilling				1	2	4	3	6	0	3	19
Shire Dumbleyung	6	2	0	0	3	0	0	1	0	1	13
Shire of Lake Grace	1	1	4	2	4	0	2	1	3	3	21
Shire of Wagin	4	5	2	2	8	1	1	2	1	5	31
Shire of Williams	4	6	4	1	0	0	1	2	4	4	26
Shire of West Arthur	0	0	0	0	2	1	1	1	0	0	5
Total Building Licences Approved	**15**	**14**	**10**	**6**	**19**	**6**	**8**	**13**	**8**	**16**	**115**

Figure 6 below confirms that the majority of residential accommodations developed in the 4WDL are single dwellings. The average cost per dwelling is shown in Table 8 below. Details of individual development costs and trends by the Shire are included in Appendix D. The figures and graphs below indicate a steady increase in building costs associated with single houses and the dominance of single houses being the preferred form of development.

Figure 6: Percentage of Housing Typology

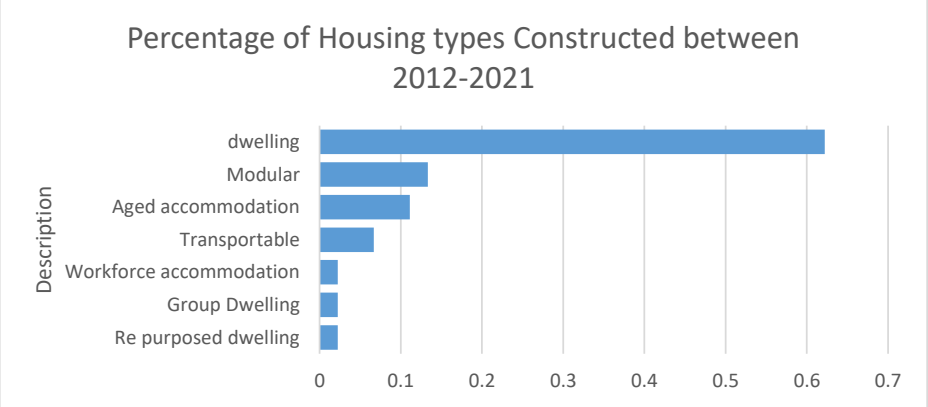
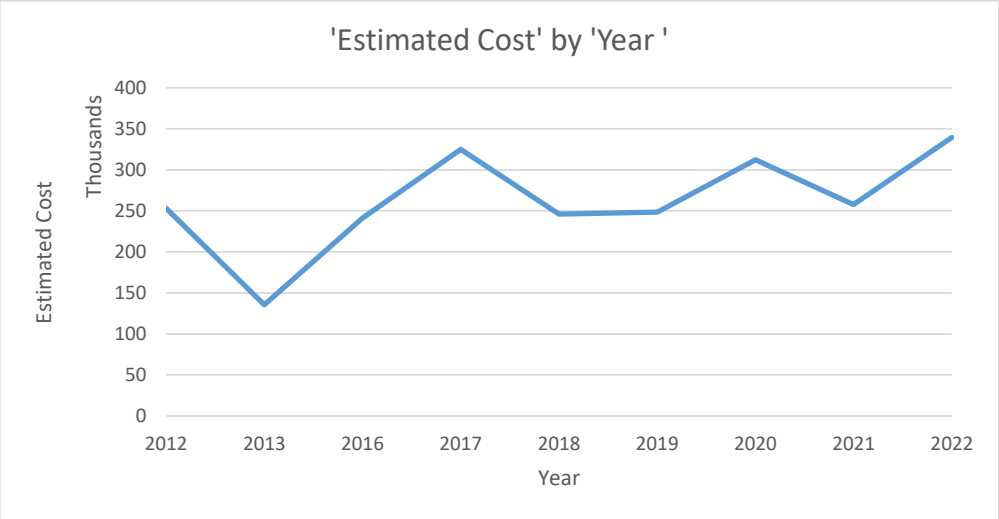


Table 8 provides a combined average estimated spend per accommodation unit (the majority being a single dwelling) based on construction cost estimated on the building licence. This table indicates a steady price increase since 2012, with an average spending per dwelling of $330,000 in 2022. This figure may be higher for high-end 4x2 brick or modular homes and much less for a 2x1 aged person accommodation. See the relevant Appendices.

Table 8: 4WDL Average Cost per dwelling by year

4WDL Average 'Estimated Cost' for one unit of residential accommodation by year	
Year	**Average of Estimated Cost**
2012	$253,333
2013	$135,500
2016	$241,250
2017	$325,000
2018	$245,920
2019	$248,539
2020	$312,285
2021	$257,594
2022	$339,389

Figure 7: Cost of Housing from 2012- 2022



Rental Trends and Rental Market Value of Shire Property

According to the survey results, 80% of Shire properties are rented to Shire employees, state agencies or privately

Figure 8: Percentage of Shire properties rented

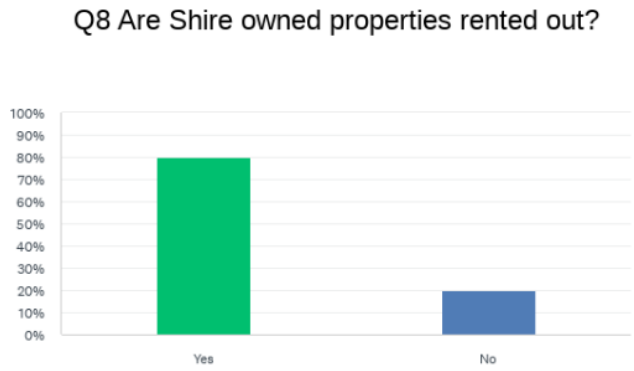


Table 9 expands on the data collected under Question 11. Shire worker housing will be explored in more detail in the analysis as each shire/town has different expectations around worker housing provision. However, collectively the trends are that there isn't a significant gap in workforce needs. However, there is demand for shire worker housing, particularly in the smaller towns.

Table 9: 4WDL Shire Houses and Number of Workers

Local Government	Council Houses	Number of employees	Staff Shortage	Staff renting Shire Housing	Rent to Agencies or private	Forecast need and gaps for staff housing
Shire of Wagin	5	54		0	4	1
Shire of Woodanilling	11	16		3	8	10
Shire of West Arthur	14	36		6	8	3
Shire of Williams	5	31		4	1	2
Shire of Dumbleyung	23	26	4	4	19	10
Shire of Lake Grace	15	38	4	11	4	5
Total	73	201	8	28	44	31

The data for the rental market value of shire housing was collected. While some properties are rented to staff at a subsidy (particularly noted for the Shire of Lake Grace), the market value is indicated in Table 10 below. Market rental values range from $128 to $460 per week, with an average of $250 a week, as shown in Table 10 below.

Table 10: Market Rental Value of Shire owned housing

Shire	Rent (per week)
Shire of West Arthur	$ 130.00
	$ 320.00
	$ 145.00
	$ 130.00
	$ 150.00
	$ 150.00
	$ 128.00
	$ 560.00
Shire of Williams	$ 270.00
	$ 230.00
	$ 300.00
	$ 360.00
	$ 390.00
Shire of Dumbleyung	$ 310.00
	$ 280.00
	$ 250.00
	$ 220.00
Shire of Lake Grace	$ 200.00
	$ 220.00
	$ 220.00
	$ 300.00
	$ 165.00
	$ 160.00
	$ 120.00
	$ 180.00
	$ 300.00
	$ 310.00
	$ 220.00
	$ 240.00
	$ 300.00
	$ 300.00
	$ 460.00
Average	$ 250.56

Land Availability

Several serviced residential lots are available in each town, with restricted supply evident in the Shire of Lake Grace and the Shire of Wagin, which also have a higher proportion of residential development.

Table 11: Number of Vacant or Underutilised lots

Local Government	Unserviced Residential	Serviced Residential	Unserviced Commerical	Serviced Commercial
Shire Williams	43	36	0	5
Shire Wagin	0	6	0	0
Shire of Dumbleyung	0	31	0	12
Shire of Lake Grace	7	4	0	1
Shire of Woodanilling	0	45	0	2
Shire of West Arthur	9	35	0	10
Total	59	157	0	30

The Inhibitors for Investment in Housing Infrastructure

The collection of comments provided below is unedited from responses to question 12 of the Survey, and therefore some repetition:

- availability of building trades
- value of housing drops significantly as soon as it is constructed.
- Cost for connection of services, i.e., power, water, sewer.
- Cost of building in country areas.
- Lack of capital return.
- Population drift; demographic change (more than one third retired);
- lack of interest on the part of state government.
- Failed market conditions make it cost-prohibitive from encouraging private sector investment.
- Investors are unable to secure external borrowing finance for new builds unless they have a substantial deposit and/or equity (upwards towards 50%).
- The cost of a new build is usually much higher than the market value of the resulting built product.
- Land availability and costs of housing.

5. State Agency Stakeholder Questionnaire

The project team drafted a series of questions to seek to understand the gaps and demand for housing for key workers with State Government Agencies. The questions included the following:

1. What are the number and characteristics of current employees requiring housing and projected employee accommodation needs in the study area? What will this look like in terms of dwelling type and location?
2. List the number of properties owned by your agency in the relevant townsites and identify the condition and level of utilisation of associated dwellings.
3. What are the main impediments or constraints in supplying housing in the study area?
4. Does your agency have any funding/potential funding or proposed development models for housing delivery?
5. What is the current workforce makeup being utilised for servicing each of the towns in the study area i.e. how many FTE's, freelance or contractors are employed and how are they domiciled, including any drive in, drive out staff?
6. Do you have or anticipate having any staff shortages in any locations in the study area and if so, how many?
7. If the answer to 2 above is yes, would the availability of additional housing in the study area improve chances of filling these job vacancies?

The agencies consulted included :

- Government Regional Officer Housing (GROH),
- Main Roads WA (MRWA)
- WA Country Health Service (WACHS)
- Development WA
- Department of Planning Lands and Heritage (DPLH)
-

Agency Responses

MRWA advised that they have no housing or workers' housing the 4WDL region.

Development WA were consulted to provide any up-to-date land supply or land development data, along with proposed land releases in any of the towns in the 4WDL region. Development WA is reviewing the area and their planning and will respond in due course.

DPLH assist the investigation by providing historical approvals data and tenure mapping for each town site. This information is partially provided and will be presented in the needs analysis in conjunction with the mapping from each local government relating to vacant or underutilised land. This information may assist LGAS in identifying priority areas with potential for development.

WACHS provides the data included in Table 12 below. Essentially WACHS do not anticipate an increase in the staff required as the forward program is to maintain the current level of service. The issue with maintaining this level of service is due to an ageing nursing workforce, which needs to be replaced. The issue with replacing the workforce is that the younger nurses are not attracted to living in the town, and therefore WACHS need to rely on the drive-in drive-out nurses to fill any vacancies or shortages in the workforce. Providing better accommodation and town amenities is necessary to attract and retain nurses. The proposed WAHCS housing is for the replacement and

expansion of better accommodation options. WACHS submitted a business case to Treasury for the additional accommodation in 2021, which was not fully supported, with only limited return funding for minor works and essential security upgrades. WACHS has also launched an investor platform WA Country Health Service - Country health housing

Table 12: WA Country Health Service Staff and Housing

Locality	Number of Nurses	Administration and support workers	Current Housing	Recommended Future Housing
Williams	1 fte	5	0	1 (3 x2) dwelling
Wagin	14	10	1 (3x1) dwelling 1 (6 x1) dwelling 3 rentals	Combination of the following 3x2 2x2 1x1 = 12 rooms
Dumbleyung	14	7	2x1 dwelling 3x1 dwelling	3 x (1x1) tiny homes
Lake Grace	14	10	10 bed nurses quarters 3x1 dwelling	Combination of the following 3x2 2x2 1x1 = 12 rooms
Totals	**42**	**32**	**11**	**12**

Table 13: GROH current and proposed housing

Shire	**No. Of Properties**	**Leased**	**Owned**	**Proposed in next 4 years**
Dumbleyung, Shire Of	7	2	5	-
Lake Grace, Shire Of	17	3	14	-
Wagin, Shire Of	13	3	10	3
West Arthur, Shire Of	3	3	-	-
Williams, Shire Of	5	-	5	2
Grand Total	**45***	**11**	**34**	**5**

GROH provides housing for 30 State Agencies. Of the appropriated agencies that GROH service, Communities receive a forecast of housing needs based on individual agencies' workforce planning. Information of workforce planning is not provided and is needed to be sourced from agencies individually.

The GROH portfolio is broken down into GROH owned and privately leased properties. Privately leased properties represent approximately 50% of the portfolio, as such the competitive leasing market in

the current climate plays a large role in the housing supply in towns. The State Government is investing **$200 million** in the GROH Program to increase stock levels across the state through spot purchase and construction programs, as well as returning and extending the useful life of existing stock through refurbishment and general maintenance programs.

It is unclear if GROH provides Western Power and Water Corporation with accommodation under GROH. This information is being requested and will be included under the final report.

The 4WDL Shires also provided statistics on State Government Housing based on their records and is included in Table 14 below. Table 14 includes Department of Housing' social housing' numbers in some areas and will be reviewed through the analysis.

Table 14: Shire records of State Agency housing in 4WDL Shires

Local Government/Town	Dept of Communities	Joint Venture	Shire Community Housing	WA Country Health Service	Other State Agencies	Total
Lake Grace	12	2	2	1		17
Newdegate	5	4	4			13
Lake King	4	4				8
Varley		3				3
Wagin	30			2	16	48
Williams	5	8	11			24
Darkan			6		2	0
Woodanilling					0	0
Dumbleyung	12			2		14
Total based on Rates	68	21	23	5	18	135

ECONISIS

"4WDL" REGIONAL HOUSING ANALYSIS

Client: **Shire of Dumbleyung**

Title: 4WDL REGIONAL HOUSING ANALYSIS

Version: FINALB

Date: Thursday, 27 April 2023

econisis.com.au

ECONISIS **REPORT**

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DISCLAIMER

VERSION CONTROL

VERISON	PURPOSE	AUTHOR	REVIEWER	APPROVER	APPROVAL DATE
DraftA	Draft for internal review	MW	EW	MW	16/01/2023
DraftB	Draft for client review	MW	EW	MW	13/02/2023
FINALA	Final draft	MW	EW, JE, AM	MW	21/02/2023
FINALB	Final draft including 4WDL Comments	MW	4WDL	MW	27/04/2023

APPROVAL FOR ISSUE

APPROVER	CONTACT	SIGNATURE	DATE
Mark Wallace PRINCIPAL	**T**: 0431 676 254 **E**: mark.wallace@econisis.com.au		Thursday, 27 April 2023

CONTENTS

FIGURES AND TABLES

EXECUTIVE SUMMARY

INTRODUCTION

- Econisis, in partnership with JE Planning, has been engaged by six local governments in the Wheatbelt region to undertake analysis on housing needs and development opportunities and challenges in the region.
- The focus of this analysis is on identifying and quantifying the level of housing need in each of the six local government areas (including the major townships in each) as well as identifying key development feasibility constraints, land/site availability and potential development models for consideration.

REVIEW OF REGIONAL HOUSING MODELS

- Key worker housing supply and affordability challenges are increasingly common across regional areas in Australia. The combination of small labour markets, flat and declining populations, comparative low median house prices and development feasibility issues create an environment in which coordinated government intervention is required.
- While State and national governments are best placed to provide financial support to incentivise and address fiscal shortfalls in key worker housing supply and development, Local Governments have the potential to play a critical implementation role in directly facilitating new key worker housing projects. This includes working independently or in collaboration with State Government and community housing organisations.
- Local Government responses and actions in recent years have been varied, ranging from providing land supply and planning support, investment and demographic information provision and infrastructure and land development funding incentives and waivers. However, the most direct role of councils in other States has been through the direct development of key worker housing. This includes through the provision/gifting of residential land to private developers and community housing organisations for agreed development for key worker and affordable housing, as well as direct development and owners of housing under affordable rental models.
- A challenge with direct housing ownership for regional local governments however has been the issue of negative equity – with land and construction development costs commonly exceeding market prices in small regional markets, leading to Council budgets and balance sheets being impacted by asset write downs. As such, State and national Government's must play a critical role of removing this fiscal burden from local government, providing bridging grants and finance to allow Councils to play a direct role in key worker housing provision in a targeted and responsive manner.

MARKET FEASIBILITY ASSESSMENT

- While private markets are the preferred method in Australia and most Western countries, for the supply of goods and services to the population, such markets are subject to failure. "Market failure" represents a situation in which, for a diverse range of reasons, the private sector is unable to meet the needs and requirements of a community. Issues of market depth/liquidity, capital intensity and feasibility are common factors in situations where markets fail.
- Regional communities such as those in "4WDL" are more susceptible to issues of market failure, due to their comparative remoteness, small size/lack of demand critical mass and labour force constraints. This is particularly the case for housing, where the cost of construction often exceeds the median market value of housing.
- Econisis has tested the feasibility of development in the region across each of the major towns in the study area using a static residual value approach.

- A static residual value is a preliminary approach to feasibility. It compares the direct and indirect costs associated with the construction of a dwelling with the notional market value of that dwelling. Any value that is residual from this comparison represents the maximum value of the land that would be necessary to facilitate a positive feasibility outcome.
- Econisis has analysed the feasibility of two different illustrative dwelling development types:
    - a 3 bedroom + study, 2 bathroom, 2 car detached one storey brick veneer house with medium quality finishes.
    - an 8 unit apartment, 2-3 storey apartment building with ground floor parking, 1/2 units and no elevator.
- This preliminary feasibility analysis confirms that general dwelling construction across the 4WDL region generates a negative residual ranging from $50,000 to $200,000 for single dwellings and up to $250,000 for group dwellings. This negative residual value confirms that the private market is unlikely to respond to the overarching needs for key worker accommodation in the region's major towns in the absence of incentives and support.
- It also highlights that the development of housing by local governments for key workers in the region would likely require the gifting of land as part of any construction deal, as well financial subsidy, to reduce the impact on Councils of the write down in asset values upon completion.

INVESTMENT AND TENURE MODEL REVIEW

- To ensure that housing is affordable for key workers, there are a number of models of housing to consider, including:
    - Alternative housing models
    - Affordable design
    - Restricted or affordable purchase
    - Community Land Trust
    - Shared equity
    - Build to rent
    - Rent to buy
    - Tiny homes/relocatable housing
    - Social housing
- Small housing product was identified as a potential solution to the delivery of housing product in the region. Small housing seeks to reduce the footprint and size of the dwelling constructed on a lot to make the dwelling more fit for purpose and efficient, reducing excess and underutilised space. Econisis has run the same preliminary feasibility analysis model used in section 3.0 to provide construction cost estimates for a variety of smaller product types.

Table 1 Construction Costs of Small Housing Product

Indicators	3x2x2	2x2x1	2x1x1	1x1x1	Three 2x2x1	2x1x1+1x1x1
Lot Size	450	400	350	300	1,000	450
Baseline Dwelling Cost	$217,840	$160,320	$153,280	$137,440	$459,840	$245,760
Site Servicing Costs and Fees	$32,665	$32,665	$32,665	$32,665	$65,329	$32,665
Wheatbelt Weighting	15%					
Stamp Duty, Legals, Fees	5%					
Building Contingencies	5%					
Adjusted Costs	$313,131	$241,231	$232,431	$212,631	$656,461	$348,031

- Overall construction costs are lower in all circumstances on a per dwelling perspective when compared to the original 3 x 2 x 2 assessment. This appears to reflect a combination of both as reduction in the number of car spaces (reducing the land area required for the dwelling as well as the overall footprint of the dwelling) and the reduction in the size of the dwellings themselves.
- A number of potential partnership and delivery models existing for consideration in the delivery of key worker housing in the region. Examples include:
  - Local Government Led
  - Special Purpose Vehicle
  - Community Housing Organisation
  - Communities/GROH Led

OPPORTUNITY COST SCENARIOS

- The focus of housing need in the study area on key and public and private sector worker housing supports the use of “worker productivity” values in monetising the opportunity cost associated with the non-delivery of the housing needed in the 4WDL communities. This reflects the fact that without the required housing, the economic and social activity associated with the accommodated workers will not be realised in the region.
- The opportunity cost of not investing in key worker housing is potentially significantly, ranging from a loss of economic contribution of $126,000 to $265,000 per worker per year. This opportunity cost, when considered over a 20 year period, represents a significant benefit to the State economy and local communities, and is likely more than sufficient to return a positive economic return on investment to funding partners.

CONCLUSIONS

- The 4WDL region is located in the southern sub-region of the Wheatbelt. The large area combined with the comparatively small size of many of the communities, impacts the viability of private housing construction and supply. This is not unique to the 4WDL region, with similar circumstances being experienced in other parts of regional and remote Australia. This has led to examples across the country of State and Local Government interventions in regional housing markets, particularly to address supply issues impacting key worker attraction and retention.
- Preliminary construction feasibility analysis confirmed that the vast majority of towns within the 4WDL region are experience a failure of the private market to delivery housing. Traditional 3 bedroom construction costs current result in a negative residual value of the land, meaning underlying development feasibility is not sufficient to encourage market activity. Additionally, the comparatively small size of the dwelling stock means that market depth issues impact the sustainability of any private market activity. This justifies public sector intervention.

- Examples of similar interventions across the country from other State Governments identified opportunities in affordable rentals, shared equity, rent to buy schemes and small housing opportunities. Feasibility analysis of small housing indicates an opportunity to value manage construction costs of key worker accommodation in the region through the delivery of smaller, more footprint efficient standalone and semi-detached dwellings.

1 INTRODUCTION

1.1 Background and Context

Econisis, in partnership with JE Planning, has been engaged by six local governments in the Wheatbelt region to undertake analysis on housing needs and development opportunities and challenges in the region.

The focus of this analysis is on identifying and quantifying the level of housing need in each of the six local government areas (including the major townships in each) as well as identifying key development feasibility constraints, land/site availability and potential development models for consideration.

1.2 Report Purpose and Structure

This report collates the technical inputs of Econisis into the wider analysis project being managed by JE Planning. The focus of the Econisis report is on identifying local government led housing delivery, ownership and management models across Australia and testing key feasibility elements of each of the models based on their potential application to the major townships in the region.

Input has also been provided by Econisis in the form of ABS and other data sets to JE Planning's demand/need scenario modelling as well as providing strategic input and advice on site selection and recommended housing models for consideration.

This report is comprised of the following key sections:

- **INTRODUCTION –** outline of the content, structure and purpose of the report.
- **REVIEW OF REGIONAL HOUSING MODELS –** summary of different regional housing models across Australia, based on case study review and profiling. Includes recommendations on potential model attributes for consideration and application.
- **MARKET FEASIBILITY ASSESSMENT –** summary of preliminary assessments of private market development feasibility drivers and challenges in major townships across the region.
- **INVESTMENT AND TENURE MODEL REVIEW** – summary of analysis of different investment and tenure models for potential implementation with different cohorts
- **OPPORTUNITY COST SCENARIOS** – summary of preliminary assessment of not delivering the necessary housing across the region.
- **CONCLUSIONS** – outline of conclusions and recommendations for consideration by the client.

1.3 Western Australian Housing Market

At the time of this report, the Western Australian and national housing markets have experienced a period of flux. After reaching a low of $480,000 in 2020 prior to the onset of the COVID-19 pandemic, the median house price in Perth has recovered and now exceeds 2015 price levels at $547,000[1]. This reflects increased demand in the market in part due to an improved interstate migration, reflecting the comparatively successful management of the pandemic by Western Australian authorities.

At the same time, pandemic-related supply chains volatility has impacted the construction industry. This has increased the costs of construction, with new house construction costs increasing by $1,500 per week on average in 2022 for a 4 bedroom brick home. This has constrained new dwelling supply

[1] REIWA (2023) Market Insights – Perth, Median House Price Trends accessed at reiwa.com.au

with the number of new dwelling commencements in each quarter of 2022, between 25-50% lower than the previous year[2].

These supply chain constraints, coupled with strong employment and household expenditure has also impacted interest rates. After an extended period of low cash rates by the RBA (0.1%), interest rates have subsequently been raised to 3.6% or the highest level since May 2012[3].

These issues have been particularly acute for regional Western Australia, with the combination of more rapidly growing prices, regional construction cost loading and existing challenges with private market access accentuating these issues.

This has further emphasised the need for greater State Government involvement in housing supply and delivery in regional communities across the State, to help ensure equity of access to essential services and support the regional economic development capacity that fuels the State economy.

1.4 Statistical Geography

The study area of the assessment encompasses 6 Local Government Areas in the Wheatbelt Region. These Local Governments include:

- Dumbleyung
- Lake Grace
- Wagin
- West Arthur
- Williams
- Woodanilling

Additionally, consideration has been given to the specific housing attributes of major townships in the region. These include:

- Dumbleyung
- Kukerin
- Lake Grace
- Lake King
- Newdegate
- Wagin
- Darkan
- Bowelling
- Williams
- Woodanilling.

[2] ABS (2023) Building Activity, Residnetial Building Commencements by State accessed at abs.gov.au
[3] RBA (2023) Cash Rate, RBA, accessed at RBA.gov.au

1.5 Glossary and Abbreviations

The following terms and abbreviations are utilised throughout the report.

Table 2 Glossary and Abbreviations

4WDL	Region comprising Region comprising Dumbleyung, Lake Grace, Wagin, West Arthur, Williams and Woodanilling LGAs
ABS	Australian Bureau of Statistics
CHO	Community Housing Organisation
LGA	Local Government Area
NSW	New South Wales
QLD	Queensland
SA	South Australia
SPV	Special Purpose Vehicle
WA	Western Australia

2 REVIEW OF REGIONAL HOUSING MODELS

This section provides a summary of different regional housing models across Australia, based on case study review and profiling. Includes recommendations on potential model attributes for consideration and application.

2.1 NSW

2.1.1 Regional Housing Taskforce and Response

In June 2021 the NSW Government established the Regional Housing Taskforce (the Taskforce) in response to increasing pressures on the supply and affordability of housing in Regional NSW.

The Taskforce consulted widely with local government, experts from the development and housing sectors, community housing providers and regional communities across the state.

The Taskforce delivered a Findings Report in September 2021 and a Recommendations Report in November 2021 which made 5 main recommendations and 15 detailed recommendations.

The 5 main recommendations:

- Support measures that bring forward a supply of 'development ready' land.
- Increase the availability of affordable and diverse housing across regional NSW.
- Provide more certainty about where, when and what types of homes will be built.
- Investigate planning levers to facilitate the delivery of housing that meets short-term needs.
- Improve monitoring of housing and policy outcomes and demand indicators[4].

In August 2022, the NSW Government adopted all recommendations of the Regional Housing Taskforce as part of a comprehensive response to support delivery of 127,000 new homes needed to house the growing population of the regions over the next 10 years.

The response includes newly-funded commitments announced as part of the NSW Government's $2.8 billion 2022 Housing Package. The whole-of-government response includes:

- a $33.8 million Regional Housing Development Program that will provide:
- up to $12 million in grant funding over four years to support regional councils in planning for housing through the Regional Housing Strategic Planning Fund, with up to $4 million available now for the first round
- funding to expand urban development programs into high-growth regional areas
- funding to improve regional housing data to actively manage the housing supply pipeline.
- up to $120 million to accelerate the delivery of infrastructure to enable new houses, such as water, sewerage, electricity, roads, stormwater and fantastic public open spaces, as part of the expanded $300 million Accelerated Infrastructure Fund Round 3
- $174 million to deliver more than 270 homes for key workers that are needed in the regions such as teachers, nurses and police
- refining the Seasonal and Temporary Workers Accommodation Toolkit to support councils in managing seasonal and temporary workers accommodation.

The NSW Government response also includes a number of state-wide programs that will have a significant positive impact on putting a suitable roof over the head of people in the regions, including:

[4] NSW DPI (2022) Regional Housing Taskforce accessed at https://www.planning.nsw.gov.au/Policy-and-Legislation/Housing/Housing-Package/Regional-housing/Regional-Housing-Taskforce

- $300 million to upgrade more than 15,800 social homes across the state
- $217 million to improve housing outcomes for Aboriginal people across NSW and support for the Aboriginal Community Housing sector, the majority of which will be spent in regional areas such as Menindee, Broken Hill, Coonamble and Cobar
- $780.4 million to help up to 6,000 single parents, older singles and key workers across NSW buy a home through a pilot 2-year shared equity scheme
- $162.6 million to address uncertainty and blockages in the planning system and unlock more housing sooner through faster planning assessments accelerated rezoning of key housing precincts and council-led rezonings in Sydney and the regions[5].

2.1.2 Shared Equity Scheme Pilot

In 2022, the NSW government announced a $780.4 million shared equity scheme, which it hopes will help boost home ownership by reducing the upfront and ongoing costs of taking out a home loan.

Under the scheme, the NSW government will make an equity contribution of up to 40 per cent on the purchase price of new homes and 30 per cent on the purchase price of existing homes.

Importantly, the scheme will only be available to single parents with children under 18, singles aged 50 or above, and select frontline workers (teachers, nurses and police officers) who have not owned a property before.

Participants won't be required to make repayments on the portion contributed by the government, however voluntary payments can be made with a view towards owning the property outright.

A trial version of the scheme will commence in January 2023, with 3,000 places made available each financial year for two years. If successful, the state government has said the number of available slots could be doubled.

2.1.3 Role of Local Government in Housing Supply

Regional local governments in NSW often play an active role in housing supply and ownership, addressing market failure and tenant/cohort specific needs. Focus of direct Council home ownership and development in NSW has traditionally been in sectors such as aged care and temporary accommodation.

However, NSW has one of the more mature community housing sectors in Australia, meaning that active local government facilitation of housing supply is increasingly through for purpose not for profit vehicles or in partnership with CHOs. This also often includes partnerships with State Government agencies including Land and Housing Corporation (LAHC) and Landcom.

For example, Griffith Council gifted land to a CHOP to construct and manage affordable housing units, subject to conditions including that the housing is targeted at Key Workers and at no more than 75% of market rent in line with the NSW Ministerial Affordable Housing Guidelines[6].

Local Government roles have also included the rezoning and disposal of Council assets to increasing housing land supplies in responsible to affordability pressures (such as in Byron Council) to acquiring and renovating old and poorly maintained (and often dilapidated) houses for long-term rentals where land supplies are limited, or servicing infrastructure is prohibitively expensive (such as in Broken Hill Council).

[5] NSW DPI (2022) Regional Housing Taskforce accessed at https://www.planning.nsw.gov.au/Policy-and-Legislation/Housing/Housing-Package/Regional-housing/Regional-Housing-Taskforce

[6] NSW DPI Regional Housing Taskforce Findings Report accessed at https://www.planning.nsw.gov.au/-/media/Files/DPE/Plans-and-policies/Housing/Regional-housing-taskforce/Regional-Housing-Taskforce_Findings-Report.pdf?la=en

2.2 Victoria

2.2.1 Big Housing Build

Victoria's Big Housing Build program is a $5.3 billion investment in social and affordable housing, delivering over 12,000 new dwellings:

- including 9,300 new social housing dwellings
- replacing 1,100 existing dwellings

The investment, delivered throughout metropolitan and regional Victoria, will boost total social housing supply by 10%[7].

The Big Housing Build will invest 25 per cent of the total $5 billion program across regional Victoria. This will provide $1.25 billion across regional Victoria.

Building social and affordable housing in regional Victoria responds to the increasing population in Victoria's growth areas and creates more rental housing to support employment growth in regional towns and cities.

The Big Housing Build provides a Minimum Investment Commitment to regional local government areas that have a significant regional town or city or have high population growth. 21 local government areas have been identified for the Minimum Investment Guarantee, with $765 million allocated.

2.2.2 Affordable Housing Rental Scheme

As part of the $5.3 billion Big Housing Build, Homes Victoria's Affordable Housing Rental Scheme will deliver an initial 2,400 affordable rental homes to address affordability pressures in metropolitan Melbourne and regional city centres, and supply issues in regional Victorian towns.

All homes under the scheme will be conveniently located, close to shops, transport and workplaces.

The scheme forms part of the housing continuum and will create an alternative to the private rental market to help low to moderate income Victorian renters access quality housing options within their means[8].

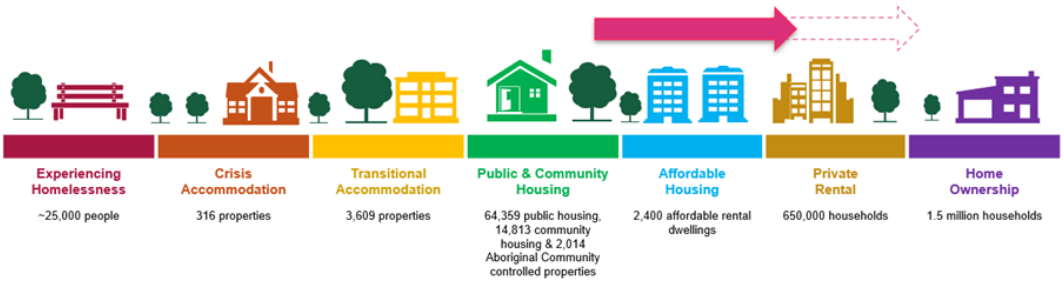


Figure 1 Victorian Housing Spectrum and Affordable Housing Rental Scheme Role

2.2.3 Community Housing Organisations in Victoria

Community housing providers are not-for-profit, mission driven organisations. They own, develop and maintain rental housing for people on very low, low and moderate incomes who require social and affordable homes. Community housing and public housing together form the social housing sector[9].

[7] Planning Vic (2022) Big Housing Build accessed at https://www.planning.vic.gov.au/permits-and-applications/big-housing-build
[8] Homes Vic (2022) Affordable Housing Rental Scheme accessed at https://www.homes.vic.gov.au/affordable-housing-rental-scheme
[9] Homes Vic (2022) Community Housing Providers, accessed at https://www.homes.vic.gov.au/community-housing-providers#:~:text=Community%20housing%20providers%20are%20not,form%20the%20social%20housing%20sector.

The Victorian Government Housing Registrar registers community housing providers and is responsible for the regulatory oversight of the community housing sector in Victoria. The Housing Registrar monitors the compliance and performance of community housing providers through ongoing regulatory engagement and a range of regulatory requirements and reports. For a list of registered housing agencies or for more information see the Housing Registrar website.

The Community Housing Industry Association Victoria is the peak industry body for the community housing sector. Their website has a full list of member organisations.

2.2.4 Role of Local Government in Housing Supply

The Victorian Planning Authority and the councils of the Great South Coast and Barwon regions of Victoria have released the Key and Essential Worker Housing Supply Action Plan to address housing supply and affordability across Victoria's south coast.

Attracting and retaining key and essential workers has become an increasing challenge across the Great South Coast and Barwon regions of Victoria over the past 10 years. There are currently more than 4,000 key worker jobs being imported from outside the region, due in large part to a shortage of appropriate or affordable housing within the region for these workers and their families.

The action plan proposes a combination of Federal, State and Local Government levers to help ease this shortage, ranging from advocacy to planning mechanisms and direct investment[10].

The actions draw on lessons from previous projects by Victorian local governments. This include Northern Grampians Council which rezoned a parcel of their land in Stawell for residential purposes and then invited developers to submit proposals for the purchase and development of the land for residential purposes. The Council set terms and conditions, which included the provision of a diverse range of housing on the site. A $500,000 grant was also secured from the State Government's Regional Infrastructure Fund with an equivalent matched funding contribution from the Council to extend services to the site[11].

2.3 South Australia

2.3.1 HomeSeeker SA

HomeSeeker SA is a South Australian government initiative that connects eligible low-to moderate-income South Australians with affordable home listings. This is done by fixing the price of the property and exclusively offering it through this initiative for a limited time, avoiding the need to compete with real estate investors. The eligibility requirements for homebuyers include the following:

- Household income of less than $130,000 before tax
- Assets valued at less than $643,500
- Does not currently own any residential property
- Will live in the home for at least 6 months

In addition to connecting buyers with these listings, HomeSeeker SA provides information and tools to help buyers understand the options available to them[12].

2.3.2 Community Housing Providers

Community housing providers (CHPs) are not-for-profit organisations that provide social and affordable housing in conjunction with SA Housing Authority and Renewal SA. They provide long-term rental housing for people with specific needs, such as people who have experienced

[10] Corangamite Shire Council (202) Housing Supply Action Plan accessed at https://www.corangamite.vic.gov.au/Property/Planning/Strategic-Planning/Strategic-planning-projects/Housing-Supply-Action-Plan
[11] As above
[12] HomeSeeker SA (2022) Welcome to HomeSeeker SA accessed at https://homeseeker.sa.gov.au/

homelessness or have a disability. They also create homes for affordable rental or purchase and bring these homes to market alternatively through government and finance providers such as HomeStart Finance. HomeStart Finance is an SA government-owned lender that specialises in home loans for people on lower incomes. It was created over 30 years ago and has assisted 75,000 people to become homeowners.

The Community Housing Asset and Investment Plans resulted in a $220 million investment in community housing providers, which is expected to produce over 1000 homes of which 720 will be retained as social and affordable housing.

Renewal SA is the state's leading development agency which focuses on revitalising communities with urban renewal projects on government-owned land.

2.3.3 Role of Local Government in Housing Supply

In South Australia, local government plays an important role in land use planning and development approvals. Planning is a state responsibility, but councils are responsible for implementation of their local development plan under the State's Planning Strategy[13]. As part of this role, a number of councils have initiated strategies to increase housing supply. These strategies have included rate rebates and the facilitation of housing development. For example, the District Council of Karoonda East Murray significantly discounted the sale of its land and is looking to buy and sell its own homes[14]. It is planning on building up to three homes on council-owned blocks with at least one selling for less than $300,000. It will also offer a 90% rebate on other council-owned blocks, which it previously successfully did in 2020[15].

In the regional Riverland area, local councils have developed plans to increase housing supply and drive economic growth in the region. For example, in 2022, the Renmark Paringa Council partnered with developer Wel.Co to develop 780 homes in an existing housing development, amounting to a $400 million investment. The Berri Barmera Council plans to build 1,700 homes by repurposing disused horticulture land into housing development[16].

Additionally, regional South Australian councils have partnered with other stakeholders to deliver housing solutions. The Tatiara District Council sourced funding through the Commonwealth Government's Building Better Regions Fund to build 8 new cabins and 8 accommodation units. The council also partnered with Unity Housing to build 2 affordable rental properties and developed a business case with Renewal SA for a subdivision development. Another housing initiative consisted of 5 regional councils releasing land at no cost to development consultants Oryx Property so that they could develop 102 new houses (80 affordable and for key workers, 20 social housing, 22 sold on market)[17].

2.4 Queensland

2.4.1 Home Owner Grants

The Queensland First Home Owners' Grant is a state government initiative that gives eligible first home buyers a $15,000 grant. Some of the eligibility requirements include:

- The home must be valued at less than $750,000

[13] LGA SA (2023) Planning & development accessed at https://www.lga.sa.gov.au/sa-councils/sa-council-services/planning-and-development
[14] ABC News (2022) Local Government Association of SA calls for task force to address regional housing crisis accessed at https://www.abc.net.au/news/2022-10-05/lga-sa-calls-for-task-force-to-address-regional-housing-crisis/101498772
[15] ABC News (2022) Mallee council, business take action on housing crisis by building homes themselves accessed at https://www.abc.net.au/news/2022-03-16/mallee-council-to-build-and-sell-affordable-home/100912020
[16] ABC News (2022) Housing development plans, growth strategies put forward to boost Riverland population accessed at abc.net.au/news/2022-08-31/riverland-housing-growth-plans/101387168
[17] LGA SA (2021) SAROC Policy Toolkit: For Regional Councils Encountering Residential Supply Constraints accessed at https://www.lga.sa.gov.au/__data/assets/pdf_file/0032/957470/ECM_764160_v6_Consultancy-Brief-SAROC-Policy-Toolkit-for-Regional-Councils-Encountering-Residential-Supply-Const.pdf

- The home must be newly built and not previously lived in
- The homebuyer must not have owned residential property in Australia before
- The homebuyer must live in the home for at least six months

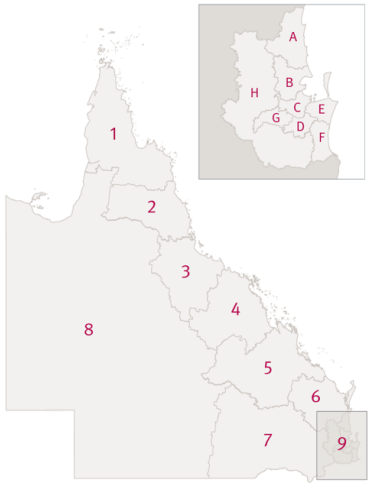
In addition, the Regional Home Building Boost Grant is a similar state government initiative that gives eligible home buyers a $5000 grant when buying or building a new home in regional Queensland. This grant does not require the home buyer to be a first home owner[18].

2.4.2 Queensland Housing Investment Growth Initiative

The 2021 Queensland Housing Investment Growth Initiative is a $1.813 billion State Government initiative with the aim of delivering 6,365 social housing homes to vulnerable Queenslanders over the next 4 years. It consists of 3 programs: the Housing Investment Fund, QuickStarts Qld and Help to Home.

After the Queensland Housing Summit, the Housing Investment Fund was increased to a $2 billion fund to deliver 5600 new social and affordable homes by 2027. The fund provides subsidies and one-off capital grants to developers, builders, CHPs, and other partners to encourage development of social and affordable housing[19].

QuickStarts Qld is a $1.813 billion capital investment program that aims to accelerate construction, redevelopment and purchase expenditure to deliver 2765 new social homes. This involves bringing forward planned investments and increasing planned delivery, including purchasing land based on specific local need. The construction will be delivered in partnership with CHPs.



Region	4 year target
1. Cape York*	107
2. Far North Queensland*	234
3. North Queensland*	229
4. Mackay-Whitsunday	98
5. Central Queensland*	113
6. Wide Bay Burnett	170
7. Darling Downs	100
8. Outback*	98
9. South East Queensland	
A. Sunshine Coast	137
B. Moreton Bay	176
C. Brisbane	466
D. Logan	178
E. Redlands	71
F. Gold Coast	260
G. Ipswich	166
H. SEQ Regional councils	26
*These dwellings will be delivered in the identified QHIGI QuickStart Qld Regions	136
TOTAL	2765

Figure 2 QuickStarts Qld Number of Houses by Development Region

Help to Home is a program that partners with property owners and landlords to deliver housing outcomes for people in need. It is a $40 million investment from the State Government to secure 1000 leases. This involves private investors providing headleasing opportunities of dwellings that have not previously been available through the private residential market[20].

[18] Queensland Government (2022) Financial help and concessions accessed at https://www.qld.gov.au/housing/buying-owning-home/financial-help-concessions
[19] Queensland Treasury (2022) Housing Investment Fund accessed at https://www.treasury.qld.gov.au/programs-and-policies/housing-investment-fund/
[20] Queensland Government (2021) Queensland Housing Investment Growth Initiative accessed at https://www.chde.qld.gov.au/about/strategy/housing

2.4.3 Role of Local Government in Housing Supply

The Western Queensland Alliance of Councils (WQAC) represents 22 councils in Western Queensland, from Mount Isa to Cunnamulla. Underinvestment in housing in this regional area has caused housing market failure, resulting in a severe lack of key worker housing and 'putting a handbrake on economic development'. In 2021, the WQAC produced the Housing Solutions Study to analyse this issue and the current role of local government. In March 2022, it was announced that the State Government would be allocating $200,000 to WQAC to implement the solutions from this report[21].

The report found that local governments are significant owners of real estate across Western Queensland. 13% of the overall housing stock is government-owned, compared to just 4% in Queensland as a whole. This housing is used for social housing and government or council worker housing. Housing is often an expectation of council employees as part of their remuneration packages. In the smaller towns, there is often no private rental market and the council serves a pseudo-real estate function where local employers will seek council housing for their staff. Due to the significant depreciation of property, this council ownership is a large financial burden. In the larger towns, local governments often rent housing directly from the private rental market for their staff.

The report found that councils are generally proactive in developing land for new housing, however the rate of absorption is varied and heavily affected by high costs of preparing the block and building. Some councils have acted by supporting local private housing development. For example, Quilpie Shire Council introduced its first home builder scheme whereby the council provides 5% of the build cost up to $250,000.

Local councils have developed creative solutions to ensure housing for staff, such as asset recycling. For example, the Burke council has worked with Westpac to sell 21 council-owned properties off market at a 40% discount to Indigenous staff members and the Bulloo council has a rent-to-buy scheme for staff members[22].

2.5 Key Lessons

Key worker housing supply and affordability challenges are increasingly common across regional areas in Australia. The combination of small labour markets, flat and declining populations, comparative low median house prices and development feasibility issues create an environment in which coordinated government intervention is required.

While State and national governments are best placed to provide financial support to incentivise and address fiscal shortfalls in key worker housing supply and development, Local Governments have the potential to play a critical implementation role in directly facilitating new key worker housing projects. This includes working independently or in collaboration with State Government and community housing organisations.

Local Government responses and actions in recent years have been varied, ranging from providing land supply and planning support, investment and demographic information provision and infrastructure and land development funding incentives and waivers. However, the most direct role of council's in other States has been through the direct development of key worker housing.

This includes through the provision/gifting of residential land to private developers and community housing organisations for agreed development for key worker and affordable housing, as well as direct development and owners of housing under affordable rental models.

A challenge with direct housing ownership for regional local governments however has been the issue of negative equity – with land and construction development costs commonly exceeding

[21] The Queensland Cabinet and Ministerial Directory (2022) Action planned for more housing in Western Queensland communities accessed at https://statements.qld.gov.au/statements/94668
[22] WQAC (2021) WQAC Housing Solutions Study accessed at https://wqac.com.au/housing-study

market prices in small regional markets, leading to Council budgets and balance sheets being impacted by asset write downs. As such, State and national Government's must play a critical role of removing this fiscal burden from local government, providing bridging grants and finance to allow Councils to play a direct role in key worker housing provision in a targeted and responsive manner.

3 MARKET FEASIBILITY ASSESSMENT

This section provides a summary of preliminary assessments of development feasibility drivers and challenges in major townships across the region.

3.1 Demonstration of Market Failure

The purpose of this section is to determine the extent of private housing "market failure" in the "4WDL" region. While private markets are the preferred method in Australia and most Western countries, for the supply of goods and services to the population, such markets are subject to failure. "Market failure" represents a situation in which, for a diverse range of reasons, the private sector is unable to meet the needs and requirements of a community. Issues of market depth/liquidity, capital intensity and feasibility are common factors in situations where markets fail.

Regional communities such as those in "4WDL" are more susceptible to issues of market failure, due to their comparative remoteness, small size/lack of demand critical mass and labour force constraints. This is particularly the case for housing, where the cost of construction often exceeds the median market value of housing.

Demonstrating the existence of a market failure situation is a pre-requisite to public sector intervention.

3.2 Preliminary Analysis

Econisis has tested the feasibility of development in the region across each of the major towns in the study area using a static residual value approach.

A static residual value is a preliminary approach to feasibility. It compares the direct and indirect costs associated with the construction of a dwelling with the notional market value of that dwelling. Any value that is residual from this comparison represents the maximum value of the land that would be necessary to facilitate a positive feasibility outcome.

The assessments are preliminary in nature due to the fact it is static and does not consider the impacts of cashflows and cost and value appreciation over time. While this limits the capacity of the feasibility assessment to consider issues such as internal rates of return, peak debt and discounted cash flows, static residual value analysis is highly suitable

Additionally the feasibility assessments are not based on specific development concept and instead are based on town specific assumptions for the two standard development types outlined below.

3.3 Scenarios

Econisis has analysed the feasibility of two different dwelling types:

- a 3 bedroom + study, 2 bathroom, 2 car detached one storey brick veneer house with medium quality finishes;
- an 8 unit apartment, 2-3 storey apartment building with ground floor parking, 1/2 units and no elevator.

These scenarios are examined in more detail below.

3.4 Assessment of Traditional Construction Methods

Note the preliminary feasibility assessments undertaken within this report are based on traditional construction and housing models. This reflects the availability of data relating to construction costs for traditional housing product typologies. It is recognised however, that a range of alternative construction models and housing products are increasingly available on the market. This includes modular, prefabricated and relocatable housing models that provide basic to medium quality

accommodation at a lower cost than that of traditional construction. Similarly, while a multi-story dwelling complex has been assessed in this pre-feasibility assessment, various alternative multi-dwelling models also exist. This could include community title based developments, where multiple small/tiny dwellings are delivered on a single site without the need for.

These alternative construction and development models are potential solutions for addressing development feasibility issues in the region and are profiled in section 4.0.

3.5 Single Detached Dwelling

3.5.1 House Prices

Sales price information in the major towns across the study area is limited. This reflects the comparatively shallow nature of each of the markets, and the challenges this creates in estimating median sales price.

Econisis has collated data on median sales prices from a number of sources including Realestate.com.au, REIWA and Htag.com.au. This represents the median price of all on-market house sales in the area.

Additionally, Econisis has collated a list of current houses listed for sale on the market from the same sites. From this list, prices that are non-market in nature (i.e. less than $50,000) have been removed, resulting in a "trimmed" on-market price estimate for each location.

Table 3 Median Sales and On-Marked (Trimmed) Prices, Study Area Major Towns

Town	Median Sales Price	On-Market (Trimmed) Price
Dumbleyung	$115,000	$150,000
Kukerin	$127,000	$135,000
Lake Grace	$250,000	$210,000
Lake King	$147,500	$147,500
Newdegate	NA	$230,000
Wagin	$200,083	$233,825
Darkan	$120,000	$120,000
Bowelling	NA	$226,700
Williams	$242,000	$315,000
Woodanilling	$210,000	$259,000

Overall, the median sales prices are not representative of the potential price for a newly constructed dwelling. In all towns listed, the on-market (trimmed) price is higher than the median sales price in 2022.

For the purpose of this assessment Econisis has utilised the on-market price for the residual value analysis.

3.5.2 Costs

Construction costs have increased markedly in recent years in response to a combination of increased housing demand and disrupted national and global construction supply chains.

Econisis has drawn on data from BMT Quantity Surveying to test two different dwelling types:

- a 3 bedroom + study, 2 bathroom, 2 car detached one storey brick veneer house with medium quality finishes.
- an 8 unit apartment

For a detached dwelling, construction costs have been calculated based on the following spaces:

Table 4 Notional Spaces, Single Detached Dwelling

Spaces	Size of Spaces (sqm):
Kitchen	16
Main bathroom	9
Master bedroom	16
Ensuite Bathroom	4
Lounge Area	16
Bedroom 2	9
Bedroom 3	9
Study/Rumpus	9
Laundry	4
Garage	36
Decks, verandahs & patios	9

Additionally, an allowance of 10% has been included for internal circulation.

Based on this, Econisis has estimated the total floorspace of approximately 142sqm, which represents a small 3 bedroom home (below national and state averages). **Note**: this size has been intentionally selected to ensure the construction cost estimates are conservative in demonstrating market failure. This size is below national and state average floor spaces (ranging from 180-240sqm) reflecting both the number of bedrooms (3 vs 4) and the adoption of a value management approach.

To calculate baseline costs, the following space specific costs per sqm have been applied:

- internal spaces - $1,800/sqm
- garages - $1,400/sqm
- Decks, verandahs & patios - $1,200/sqm

These costs are before any allowances and regional loadings.

Site development costs have been derived based on per lot fees and charges to major WA utility companies, along with site specific allowances. No consideration has been given to the underlying price of the land as this is the intention of the outcome of the analysis.

It is assumed that a lot of 500sqm is provided for the detached house. It is assumed the lot is flat, requiring minimal earthworks outside of clearing and leveling and is located within a townsite that allows for ready access to power and utilities.

Based on a review of sub-division costs, fees and charges, Econisis has made the following allowances:

- Watercorp fees - $6,900 + GST
- Western Power fees - $2,795 + GST
- Site preparation costs - $10,000 + GST; and
- Allowance for landscaping and driveway construction - $10,000 + GST

This equates to a baseline lot servicing costs of $29,695 + GST.

The costs provided above utilise Perth as a baseline and do not include allowances to date for region specific loadings, contingencies and fees.

Note that the costs outlined above are regarded as those site specific costs related to the construction of a dwelling. They exclude costs associated with the development of the lots themselves, including non-site trunk infrastructure and enabling works. It is estimated that these non-dwelling related site development costs can be valued at a further $100,000 per lot.

To account for this, Econisis has included the following weightings to apply to the dwelling construction and site costs:

- Wheatbelt Weighting 15%
- Stamp Duty, Legals, Fees 5%
- Building Contingencies 5%

3.5.3 Residual Value

The results of the application of the weightings, fees and contingencies to the dwelling and site costs is a total cost of $313,131 as at 2023. This is the estimated construction cost of a standalone detached 3 bedroom 2 bathroom, 2 car garage brick home of medium finishes.

Already it is evident that this construction cost is above that of the median and on-market prices for houses in each of the major towns. This means that the residual value of the land as the remaining component in the feasibility is negative in almost all towns in the area. This is summarised below.

Table 5 Residual Value, Single Detached Dwelling, Major Towns

Town	Total Construction Cost	Sales Price	Residual Value	Notional Value per SQM
Bowelling	$313,131	$150,000	-$163,131	-$363
Darkan		$135,000	-$178,131	-$396
Dumbleyung		$210,000	-$103,131	-$229
Kukerin		$147,500	-$165,631	-$368
Lake Grace		$230,000	-$83,131	-$185
Lake King		$180,000	-$133,131	-$296
Newdegate		$115,000	-$198,131	-$440
Wagin		$226,700	-$86,431	-$192
Williams		$315,000	$1,869	$4
Woodanilling		$259,000	-$54,131	-$120

Williams is the exception, with a marginally positive residual value. This reflects a price point slightly above that of the study area wide construction cost. However, for all other areas, the residual value is negative, ranging from -$54,131 (or -$120 per sqm) for Woodanilling to a high of -$198,131 (or -$440 per sqm in Newdegate.

This analysis confirms that the housing markets in each major town across the region are in effective market failure position.

In order to address the preliminary feasibility issues raised, the dwelling would need approximately $50,000 to $200,000 of financial subsidy in addition to the land if the dwelling was to be sold on the market. This subsidy would also be required if the dwelling is retained and leased to address the writedown in the value of the asset that will be incurred by the asset owner.

3.6 Multi-Unit Apartment

Econisis has also examined the preliminary feasibility attributes of a multi-unit apartment style development. This differs to that of the development of additional individual detached housing, by creating a single clustered development of smaller unit based accommodation to provide housing of key and essential public workers, temporary accommodation for visitors and the community, and/or aged/retirement living.

This development typology has a different set of challenges and advantages in terms of feasibility, including a lack of comparable product in the market and great construction and engineering costs relative to detached housing. However, the land based negative equity is typically lower and multi-

dwelling product is commonly smaller (in terms of bedrooms) offering a new and different type of housing product into regional markets that can be very homogenous.

Refer to section 4.3 for feasibility results for triplex and duplex style group dwellings for comparison.

3.6.1 Apartment/Unit Prices

Note that there is current no/insufficient multi-dwelling sales to accurately determine a house price. Therefore a notional market price for a 2 bedroom apartment/unit of $250,000 has been applied. This equates to a total market value of the 8 units of $2.0m.

3.6.2 Costs

Costs have been developed based on an assumed average unit floor space size for a 2-3 storey walk up apartment unit of 8 dwellings. The assumed development has the following attributes:

- Land area – 1,000sqm
- Net Developable Area - 50%
- Plot Ratio of NDA – 1.5
- Floor space per apartment – 85sqm
- Number of apartments/units – 8
- Car parking – 10 at grade

Construction costs per sqm for a medium finish 2-3 storey unit building in Perth is estimated at $2.993 per sqm[23]. In terms of site development costs, Econisis has assumed a site cost of $1,000 per sqm. This allows for on-site parking construction, as well as site servicing costs (totally costs of $1.0m). To these estimates, a 15% weighting has been applied for the Wheatbelt region while further allowances have been applied for stamp duty/fees (5%) and contingencies (5%). A further allowance of $250,000 for other fees and charges have also been allowed for.

This results in a total cost of $3.95m.

3.6.3 Residual Value

The results of the comparison between market value and costs the construction and site development for an 8 unit apartment building in the region confirms a negative equity of approximately $1.95m.

[23] BMT (2022) Construction Costs

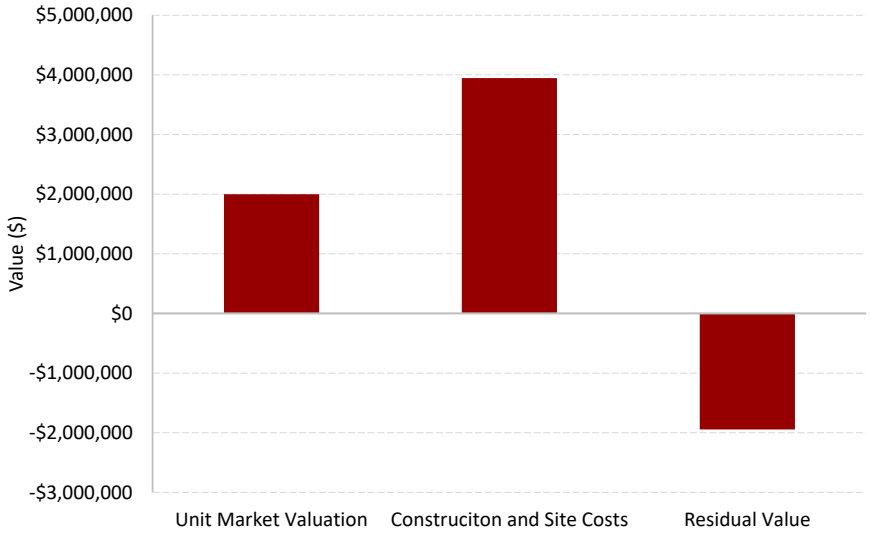


Figure 3 Preliminary Feasibility Assessment, Multi-Dwelling Unit

This represents a negative residual value of approximately $245,000 per dwelling. This is higher than the negative residual value for single detached dwellings assessed in the previous section across the region. This reflects a combination of factors including:

- Site costs being amortised only over a small number of dwellings, due to the small size of the development.
- Higher per sqm construction costs, due to the assumed multi-storey nature of the dwelling typology.
- Higher overall construction costs resulting in a larger impact from regional weightings and
- A constructed market value assumption.

This result is somewhat expected as it reflects the general poor competitiveness of apartment and multi-dwelling unit housing product in regional areas, where affordability of housing and availability of land is generally better than in metropolitan areas.

3.7 Key Findings

This preliminary feasibility analysis confirms that general dwelling construction across the 4WDL region generates a negative residual ranging from $50,000 to $200,000 for single dwellings and up to $250,000 for multi storey dwellings. This negative residual value confirms that the private market is unlikely to respond to the overarching needs for key worker accommodation in the region's major towns in the absence of incentives and support. It also highlights that the development of housing by local governments for key workers in the region would likely require both the gifting of land as part of any construction deal, as well financial subsidy, to reduce the impact on Councils of the write down in asset values upon completion.

4 INVESTMENT AND TENURE MODEL REVIEW

This section provides a summary of analysis of different investment and tenure models for potential implementation with different cohorts.

4.1 Alternative Housing Models

To ensure that housing is affordable for key workers, there are a number of models of housing to consider, including:

- **Alternative housing models** – in recent years, alternative housing models such as co-living and tiny houses have started to become more prevalent as potential "disrupters" to traditional houses and apartments. While they will not suit all households, the ability to lower housing costs by living in small and/or shared spaces is attractive to some.
- **Affordable design –** compact lots and housing that can be delivered by the market at an affordable price point, and with sustainable design features that result in lower running costs.
- **Restricted or affordable purchase** – price-controlled housing that is made available for purchase by those on defined incomes. The key principles are that:
    - The dwelling must be offered for sale at or below the appropriate price
    - The dwelling must be offered for sale to eligible buyers
    - The discount for affordable housing for the first purchaser is preserved for future purchasers, either in perpetuity or for a fixed period of time.
- **Community Land Trust** – the land upon which the dwelling is located is held in a Community Land Trust (CLT). The payment for the occupation of the land is via a peppercorn lease. The land is held in a CLT for individuals, a not for profit or a private company to develop dwellings. Finance only needs to be sought for the built form and not the land – the savings are reflected in lower rents or purchase prices.
- **Shared equity** – the essential feature of all shared equity models is that the buyer shares the capital cost of purchasing a home with an equity partner, thereby permitting households to buy a home with lower income levels than would otherwise be required.
- **Build to rent** – developers and their financiers build dwellings and, instead of selling them, retain them to let to tenant households. Rents may be set at market rent or, for affordable and social housing, at an appropriate discount to market rents. The National Rental Affordability Scheme (NRAS) was a build to rent model.
- **Rent to buy** – the homes are offered at a reduced rent for a minimum of five years and let on assured short-hold tenancies for a fixed term. The model being adapted in Australia is that, after five years of renting, the tenant has first option to purchase the dwelling at a price agreed at the commencement of the five years. If the tenants do not want to buy, the landlord can retain the property as rented housing or sell it on the open market.
- **Tiny homes/relocatable housing** – compact dwellings that are manufactured off site (now they are often architecturally designed studio units) and provide high quality and reliable homes at a cost effective price point. The dwellings can range from fully off grid (with some being constructed on trailers for moveability) to more permanent homes that are placed on serviced lots with prepared foundations.
- **Social housing** – this is housing owned by a State Government or by a community housing organisation. Typically, community housing organisations will seek to develop and build units or apartments.

4.1.1 Implications for 4WDL

Given the feasibility challenges of the region in terms of traditional housing construction, namely the negative residual value associated with both single and multi-dwelling development, any model of tenure and investment that results in the disposal of the dwellings should be excluded from consideration. This is reflected in the approaches adopted in other States, where the focus is instead on providing high quality affordable rental accommodation options to support the attraction and retention of key workers. It also means the negative residual value under this approach is never realised financially, but is still absorbed by the dwelling owner (i.e. Council) in the absence of financial support from State and Local Governments.

In terms of construction, relocatable housing provides opportunities to reduce the cost of construction of dwellings in the region, thereby decreasing the size of the negative residual value of the dwelling. However, this does raise concerns regarding dwelling quality, particularly for key workers in professional and executive roles where more traditional housing is generally expected. The appropriateness of relocatable housing is therefore contingent on the expected tenant mix of the key worker dwellings, their likely length of stay and the acceptability of different standards of accommodation.

Additionally, tiny/small dwellings present a genuine option for consideration in the region. Housing stock in the region skews heavily to larger dwelling sizes which is not necessarily appropriate for key worker, younger and older age cohorts. Small dwelling including 2 bedroom single storey detached dwellings, duplexes and community title precincts, provide an opportunity to reduce the cost of construction and delivery of a new unit of housing.

Opportunities for community title based approaches are likely to be limited in the region. The underlying value of the land is not regarded as the main barrier in terms of affordability and feasibility as is the servicing the land and the construction of the dwelling itself. Additionally, community title and rent to buy approaches typically see some form of ownership based tenure vesting with the occupant.

4.2 Rental Returns

A review of the GROH Tenant Rent Calculator from the Department of Communities provides various estimates of market rental values across the region. Given the lack of rental market in many towns, common values are applied across the 4WDL region depending on the size and quality of the property. A summary of the market rental values assumed by the GROH Calculator are outlined in the table below.

Table 6 Estimated Market Rents, GROH Tenant Rental Calculator, Weekly, 4WDL Region[24]

Bedrooms	Standard	Medium	High
1	$218	$290	$363
2	$218	$290	$363
3	$255	$340	$425
4	$303	$404	$505
5	$405	$540	$675

Comparing the market rental for a 3 bedroom house with medium finishes to the construction cost in the preliminary feasibility in section 3.0 ($313,000), Econisis estimates that the Internal Rate of Return of the gross rental value only breaks even until the 18th year and is only 1.4% per annum as of the 20th year.

[24] Department of Communities (2022) GROH Tenant Rent Calculator accessed at https://www.housing.wa.gov.au/currenttenants/governmentemployeehousing/rentcalculation/Pages/groh_rent_calc.aspx

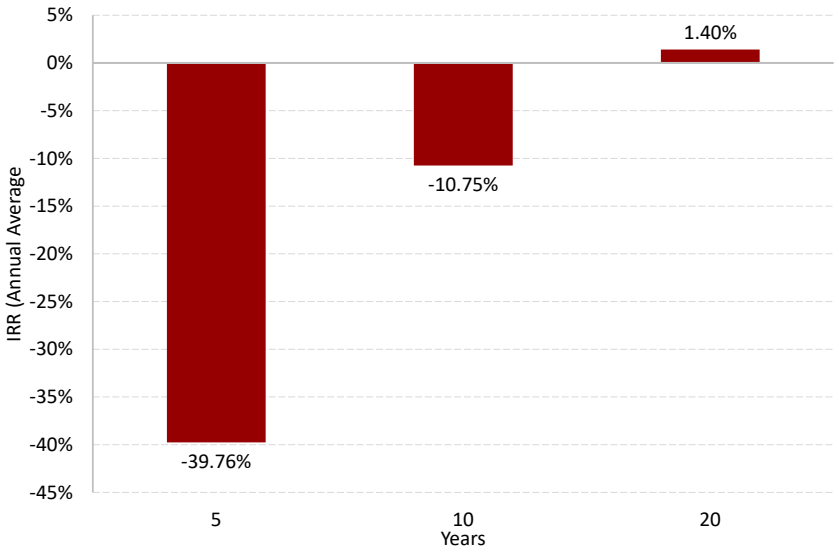


Figure 4 Internal Rate of Return, 3 Bedroom + Medium Finishes Detached Dwelling Construction and Gross Rental, by Years

Note this is based on the gross rent and does not consider issues such as maintenance, operational and refurbishment costs of the dwelling over the period and does not adjust for the rental discount that is typically offered to public sector employees living in GROH accommodation in Western Australia.

4.3 Alternate Model Construction Costs

Small housing product was identified as a potential solution to the delivery of housing product in the region. Small housing seeks to reduce the footprint and size of the dwelling constructed on a lot to make the dwelling more fit for purpose and efficient, reducing excess and underutilised space.

Econisis has run the same preliminary feasibility analysis model used in section 3.0 to provide construction cost estimates for a variety of smaller product types. These types include:

- 2 bedroom, 2 bathroom, 1 car
- 2 x 1 x1
- 1 x 1 x 1
- Triplex of 2 x 2 x 1 dwellings
- Duplex of 2 x 1 x 1 and a 1 x 1 x 1.

The results are outlined in the following table.

Table 7 Construction Costs of Small Housing Product

Indicators	3x2x2	2x2x1	2x1x1	1x1x1	Three 2x2x1	2x1x1+1x1x1
Lot Size	450	400	350	300	1,000	450
Baseline Dwelling Cost	$217,840	$160,320	$153,280	$137,440	$459,840	$245,760
Site Servicing Costs and Fees	$32,665	$32,665	$32,665	$32,665	$65,329	$32,665
Wheatbelt Weighting	15%					
Stamp Duty, Legals, Fees	5%					
Building Contingencies	5%					
Adjusted Costs	$313,131	$241,231	$232,431	$212,631	$656,461	$348,031

Overall construction costs are lower in all circumstances on a per dwelling perspective when compared to the original 3 x 2 x 2 assessment. This appears to reflect a combination of both as reduction in the number of car spaces (reducing the land area required for the dwelling as well as the overall footprint of the dwelling) and the reduction in the size of the dwellings themselves.

Interestingly, the duplex option analysed in the assessment provides a similar number of bedrooms and bathrooms as that of the original 3 x 2 x 2 product but is split over two separate and distinct dwellings.

This means that while the construction cost is slightly higher ($348,000 for the duplex vs $313,000 for the single three bedroom dwelling) due to the need for duplication of some living spaces, the average cost per dwelling is only $175,000.

Group dwelling and semi-detached dwellings therefore represents the most cost effective model of dwelling delivery and demonstrates the potential cost management benefits of smaller semi-detached dwelling models.

4.4 Partnership and Delivery Models

A number of potential partnership and delivery models existing for consideration in the delivery of key worker housing in the region. Examples include:

- **Local Government Led** – this model sees the local government identify the relevant owned sites, develop dwelling concepts and provide partial capital for the dwelling. Additional funding is sourced from other levels of Government and then the Local Government contracts a builder to construct the dwelling. The Local Government not only project manages the construction, but the resulting asset is then retained by the local government.
- **Special Purpose Vehicle** – this model is similar to the Local Government led approach but entails the establishment of a special purpose legal vehicle that is vest with ownership and responsibility for the dwelling post construction. This approach provides opportunity for the establishment of a vehicle that operates across different LGAs, providing a greater critical mass of demand and product mix across a wider region. It also provides a non-government vehicle that can potentially seek funding and investment from other levels of government.
- **Community Housing Organisation –** this model entails the early engagement of a community housing organisation. This approach seeks to leverage both the experience as well as the not for profit status of registered CHOs to assist with the design, construction and subsequent tenanting of the dwellings. CHOs can also seek to apply to the State Government for funding through an established community housing funding request for proposal process.
- **Communities/GROH Led -**this model seeks to rely on the direct involvement by Department of Communities through the GROH or Housing Authority agencies. This model can see varying levels of investment from the Department – ranging from direct engagement and funding during design and construction phase, vesting of ownership and responsibility of the dwelling with the

Department to the dwelling being rented by the end occupier to the Department through the GROH scheme. This model is also potentially complementary to other models if the Department is viewed as a potential end user/head tenant of the dwellings.

5 OPPORTUNITY COST SCENARIOS

This section provides a summary of preliminary assessments of not delivering the necessary housing across the region.

5.1 Economic Productivity

The focus of housing need in the study area on key and public and private sector worker housing supports the use of "worker productivity" values in monetising the opportunity cost associated with the non-delivery of the housing needed in the 4WDL communities. This reflects the fact that without the required housing, the economic and social activity associated with the accommodated workers will not be realised in the region.

5.1.1 What is Worker Productivity?

Worker productivity is the Gross Value Added per Worker in an economy. Gross Value Added is the value of all value adding activity in the economy and accounts for the vast majority of Gross Product (Regional, State or Domestic).

By dividing GVA by the number of workers in an economy, the relative productivity of an individual worker can be estimated. This same approach can be adopted for individual industries using Industry Value Added and the workers within that industry. This approach provides greater level of detail, recognising the different levels of economic productivity associated with different industries.

Using REMPLAN data for Western Australia, Econisis has provided the following worker productivity estimates by industry and for the economy as a whole.

Table 8 Worker Productivity, Western Australia, 2021[25]

Industry sector	GVA	Workers	Worker Productivity
Accommodation & Food Services	$4,799,749,445	89,363	$53,711
Administrative & Support Services	$5,350,859,121	42,251	$126,645
Agriculture, Forestry & Fishing	$4,904,099,902	31,176	$157,304
Arts & Recreation Services	$2,024,573,626	22,117	$91,539
Construction	$22,692,770,872	121,303	$187,075
Education & Training	$13,871,962,665	119,759	$115,832
Electricity, Gas, Water & Waste Services	$7,153,527,101	15,908	$449,681
Financial & Insurance Services	$12,681,254,944	29,233	$433,799
Health Care & Social Assistance	$19,958,837,715	186,114	$107,240
Information Media & Telecommunications	$3,131,017,914	10,442	$299,848
Manufacturing	$12,788,822,016	72,002	$177,618
Mining	$144,061,817,298	105,960	$1,359,587
Other Services	$4,349,487,922	52,983	$82,092
Professional, Scientific & Technical Services	$15,185,953,841	94,061	$161,448
Public Administration & Safety	$15,205,184,273	80,903	$187,943
Rental, Hiring & Real Estate Services	$30,614,580,989	19,497	$1,570,220
Retail Trade	$9,806,432,828	119,926	$81,771
Transport, Postal & Warehousing	$11,343,321,158	62,352	$181,924
Wholesale Trade	$7,237,711,213	33,449	$216,380
Average	**$347,161,964,844**	**1,308,799**	**$265,252**

[25] REMPLAN (2021) Economic and Employment, Western Australia accessed at https://app.remplan.com.au/eda-westernaustralia/economy/industries/employment?state=lGv2sz!elxMC6yQNu3wVNqteKmG0SDHdfP7nlrl2ljs3pOpNfPf7yhRfBlGG2qlNAZ

Industry sector	GVA	Workers	Worker Productivity
Average Net Real Estate and Mining	$193,293,714,718	1,082,913	$178,494
Education, Health, Public Admin/Safety Only Average	$49,035,984,652	386,776	$126,781

Overall the average worker in WA produces $265,252 worth of value added each year.

However, this figure is inflated by a small number of high value adding sectors, namely Mining and Rental, hiring and Real Estate Services. Removing these and the worker productivity value falls to $178,494 per worker.

Additionally, this estimate continues to include a combination of both public and private sector industries. To get a proxy of public sector, the average worker productivity values of Education and Training, Health Care and Social Assistance and Public Administration and Safety industries can be taken. This reduces the worker productivity value to $126,781.

These values are for Western Australia as a whole to reflect the data available from sources such as REMPLAN and the ABS.

5.2 Example Opportunity Cost Scenarios

There are a number of potential ways in which worker productivity can be used to calculate the opportunity cost of housing needs not being met. This reflects the level of information available on the number of dwellings, the number of workers, their sector or industry of employment and their length/duration of stay.

Econisis has demonstrated the application of worker productivity values in calculating opportunity cost for individual projects using the following example scenarios:

- **Scenario 1** – single dwelling, 1 occupant, worker industry not known, 100% occupancy
- **Scenario 2** – multiple dwellings (8), 4 public sector key workers and 4 private workers, 100% occupancy
- **Scenario 3** – multiple dwellings (8) used for even share of permanent (4 x key/public sector workers, 100% occupancy) and temporary (seasonal tourist workers for 50% of the year).

The results of these scenarios are summarised in the table and chart below.

Table 9 Opportunity Cost Examples Methods

	Scenario 1	Scenario 2	Scenario 3
Method	▪ Apply worker productivity value net of mining and real estate ($178,494). ▪ 100% weighting for full occupancy of the dwelling over the year.	▪ Apply Education, Health, Public Admin/Safety Only to 4 workers ($126,781 per worker) ▪ Apply Average Net Real Estate and Mining to 4 workers ($178,494) ▪ 100% weighting for full occupancy of the dwellings over the year.	▪ Apply Accommodation & Food Services value to 4 workers ($53,711per worker) ▪ 50% weighting for part year occupancy of the dwellings. ▪ Apply Education, Health, Public Admin/Safety Only to 4 workers ($126,781 per worker) ▪ 100% weighting for full occupancy of the dwellings over the year.

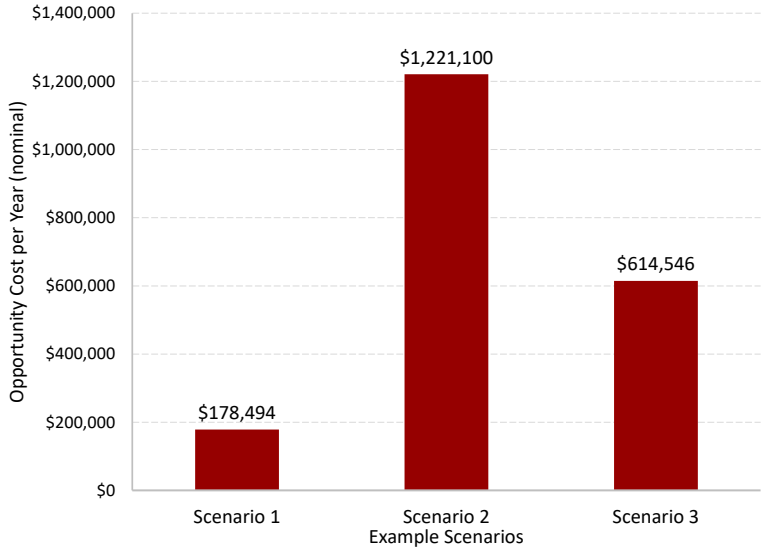


Figure 5 Opportunity Cost Examples Results

5.3 Limitations and Considerations

The use of worker productivity is a well-established methodology and approach to estimate the opportunity cost. However it does have some limitations and factors that require consideration. These include:

- **Attribution** – the total value of the opportunity cost of the dwellings is dependent on how much of the resulting economic activity can be "attributed" to the delivery of the dwellings. In some cases, the absence of the dwelling means that there are no alternatives for the delivery of the activity and so the full worker productivity can be attributed to the dwelling. In other cases, there are sub optimal next best accommodation or service delivery options (such as FIFO/DIDO). In those instances, a lower attribution (say approximately 50%) weighting should be applied to represent the net different.
- **Economic vs Social Benefits –** worker productivity is a measure of the economic activity generated by a worker. As such, it is a proxy of the worker's potential productive contribution to the community and region. It is possible that the economic value understates the value of the social contribution of the workers where they are linked to providing essential services for the local community. However, this makes the results conservative and therefore more defensible.
- **Nominal vs Present Values –** where the opportunity costs are being calculated for a single year, then the worker productivity values can be directly applied. However, where they are being calculated over several years, potentially as part of a cost benefit assessment or business case, then the value in the future years must be discounted. This is in line with CBA methodologies and allows for the benefit accrued in future years to be summed into a present value.

6 CONCLUSIONS

The 4WDL region is located in the southern sub-region of the Wheatbelt. The large area combined with the comparatively small size of many of the communities, impacts the viability of private housing construction and supply. This is not unique to the 4WDL region, with similar circumstances being experienced in other parts of regional and remote Australia. This has led to examples across the country of State and Local Government interventions in regional housing markets, particularly to address supply issues impacting key worker attraction and retention.

Preliminary construction feasibility analysis confirmed that the vast majority of towns within the 4WDL region are experiencing a failure of the private market to delivery housing. Traditional 3 bedroom construction costs current result in a negative residual value of the land (ranging from -$54,000 to -$198,000), meaning underlying development feasibility is not sufficient to encourage market activity. Additionally, the comparatively small size of the dwelling stock means that market depth issues impact the sustainability of any private market activity. This justifies public sector intervention.

Examples of similar interventions across the country from other State Governments identified opportunities in affordable rentals, shared equity, rent to buy schemes and small housing opportunities. Feasibility analysis of small housing indicates an opportunity to value manage construction costs of key worker accommodation in the region through the delivery of smaller, more footprint efficient standalone and semi-detached dwellings. This particularly the case where Local Governments can influence outcomes (i.e. development feasibility) via specific development controls and targeted local planning policies.

The opportunity cost of not investing in key worker housing is potentially significant, ranging from a loss of economic contribution of $126,000 to $265,000 per worker per year. This opportunity cost, when considered over a 20 year period, represents a significant benefit to the State economy and local communities, and is likely more than sufficient to return a positive economic return on investment to funding partners.

Consideration should be given to a range of potential delivery models and the role that individual Local Governments wish to play in the delivery of key worker housing. State Government agencies, CHOs and construction and building companies represent potential organisations for partnership after site, concept and costing information is developed.

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