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SHEPPARTON SOUTH EAST PSP

DEVELOPMENT FEASIBILITY

VICTORIAN PLANNING AUTHORITY | AUGUST 2022



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VERSION

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ACRONYMS

C1Z	Commercial 1 Zone
DCF	Discounted Cash Flow
DCP	Development Contributions Plan
DPO21	Development Plan Overlay 21
FY	Financial Year
FZ	Farming Zone
GDA	Gross Developable Area
GDHa	Gross Developable Hectare
GRZ	General Residential Zone
INZ1	Industrial 1 Zone
IRR	Internal Rate of Return
LDRZ	Low Density Residential Zone
LPPF	Local Planning Policy Framework
NDA	Net Developable Area
NDHa	Net Developable Hectare
PSP	Precinct Structure Plan
ROC	Return on Cost
UGZ1	Urban Growth Zone 1
VPA	Victorian Planning Authority

GLOSSARY OF TERMS

Internal Rate of Return	Internal rate of return (IRR) is a metric used in capital budgeting measuring the profitability of potential investments. Internal rate of return is a discount rate that makes the net present value (NPV) of all cash flows from a particular project equal to zero. In other words, the IRR takes into account the time value of funds invested and funds received.
Return on Cost	A performance measure used to evaluate the efficiency of an investment. Return on cost measures the amount of return on an investment relative to the investment's cost.

EXECUTIVE SUMMARY

The Victorian Planning Authority (VPA) is preparing the Shepparton South East Precinct Structure Plan (PSP) to help guide and facilitate new urban development.

The VPA engaged Urban Enterprise to prepare a development feasibility assessment for the residential component of the Shepparton South East PSP area to assess the extent to which the proposed development contributions rate will impact project viability and housing affordability.

HOUSING AND LAND SUPPLY CONTEXT

- There are several growth corridors (both active and future) in Shepparton's urban area, including several active estates in Kialla and Shepparton south east.
- Shepparton South East PSP area will be the major growth area in the municipality's urban area (~2,500 lot capacity).
- Currently there is an estimated 8-14 years of zoned residential supply in Greater Shepparton, which is below the target (of at least 15 years) outlined in the State Planning Policy Framework.
- Approximately 94% of zoned lot capacity (~3,237) is in Shepparton's urban area. As these existing supply areas continue to be absorbed in the short to medium term, the need to augment practical land stocks in Shepparton South East PSP will increase.

DEVELOPMENT FEASIBILITY

To assess the viability of the subject area, a discounted cash flow (DCF) analysis has been undertaken. The DCF analysis assumes the developer would seek a commercial return on the investment.

Typically, the benchmark Internal Rate of Return (IRR) and Return on Cost (ROC) that would be sought by major bank lenders is in the order of 20%.

The discounted cash flow analysis is based on following development information:

- The NDA of the subject area is 249.73 ha;
- The ultimate lot yield is estimated at 2,500 lots (average 10/lots per NDHa); and
- The development period is ~21 years in line with our assessment of lot absorption rate.

Financial Outcome

Based on the adopted set of assumptions, the hypothetical development of the subject area would result in:

- Total development cost of \$1.346 billion.
- Total income of \$1.638 billion.
- Internal Rate of Return (IRR) of 25.2%
- A Return on Cost (ROC) of 21.7%.

Both the IRR and ROC metrics would satisfy the lending requirements of the major banks to provide debt funding for the development. Hence this would be considered a viable project. There are several factors that can impact viability, including development costs, projected sales rate, projected sales price and land values.

Based on our assessment, we have a reasonable level of confidence in the lot sales based on data collected for recent years.

We also have a reasonable level of confidence in the estimate for lot construction costs. These tend not to vary significantly due to ongoing actual experience with tender prices and actual costs. However, there may be unforeseen ground conditions that could impact cost but we consider that the contingency amount (10%) would cover any unforeseen issues.

Dwelling Construction

Recent volatility in materials and labour costs has impacted the residential construction sector and inflated prices, largely caused by supply-chain issues from the COVID-19 pandemic. The financial model in this assessment adopts a contingency of 5%.

Some developers are factoring in these issues by increasing contingency to 10%. If this were to occur, it has the effect of reducing the IRR by around 5% (from 25.2% to 20.7%) and the ROC by around 4% (from 21.7% to 17.5%). This demonstrates the viability impact of unforeseen fluctuations in development costs. If the residential construction industry continues to experience price shocks, then there is a possibility that construction contingencies will increase.

Land Values

The adopted land value of \$308,819 per NDHa is based on a 'before and after' valuation in June 2022. There is, however, some uncertainty regarding the broadhectare value of land within the precinct (i.e. the price which developers will pay for the land to develop). As an example, if broadhectare land values were to increase (say to \$400,000/NDha), this would have a flow-on effect on viability.

Impact of Land Values & DCP Rates on Viability

Given the uncertainty regarding broadhectare land values, and the dynamic relationship between land values and development contributions (and their potential impact on viability) we have undertaken a sensitivity analysis.

Four scenarios have been assessed for the subject area, and are as follows:

1. Base case land value with the proposed DCP rate (\$24,956 per lot);
2. Base case land value with a minimum DCP rate that would meet the threshold viability benchmarks;
3. Alternative (higher) land value with the proposed DCP rate (\$24,956 per lot);
4. Alternative (higher) land value with the proposed DCP rate but a higher average sales price that would meet the threshold viability benchmarks.

FINDINGS

- Under scenario 1, the project would be viable.
- Under scenario 2, the project would be viable with a DCP rate up to \$32,270 per lot.
- Under scenario 3, the project would be marginal.
- Under scenario 4, to increase the IRR to meet the 20% threshold the developer could increase the sales price expectations for a house and land package. For this to occur, the average selling price would need to increase by approximately \$8,000; representing a 1.2% increase.

TS1. LAND VALUE & DCP IMPACT ON VIABILITY

Scenario		Land value per NDHa	DCP rate	Ave. sales price	IRR	ROC
1	Base case (with proposed DCP rate)	\$308,819	\$24,956	\$655,000	25.2%	21.7%
2	Base case (with a minimum DCP rate that is viable)	\$308,819	\$32,270	\$655,000	23%	20%
3	Alternative land value scenario (with proposed DCP rate)	\$400,000	\$24,956	\$655,000	18.7%	20%
4	Alternative land value scenario (with a higher sales price)	\$400,000	\$24,956	\$663,000	20%	21.3%

Source: Urban Enterprise, 2022

1. INTRODUCTION

1.1. BACKGROUND

The Victorian Planning Authority (VPA), in consultation with Greater Shepparton City Council and government agencies, is preparing the Shepparton South East Precinct Structure Plan (PSP) to guide new urban development in Shepparton.

The Shepparton South East PSP area will accommodate up to 2,500 dwellings and a population of more than 6,000.

1.2. PURPOSE OF THIS REPORT

The VPA engaged Urban Enterprise to prepare a development feasibility assessment for the residential component of the Shepparton South East PSP area to assess the extent to which the development contributions rate will impact project viability and housing affordability.

For the purpose of this report, the VPA has instructed Urban Enterprise to adopt a DCP rate of \$249,559 per NDHa. The DCP rate equates to \$24,929 per lot (based on a density of 10 lots per NDHa).

1.3. METHODOLOGY

This assessment adopted the following approach:

1. **Residential development information**
 - a. Review the Shepparton South East PSP and summarise residential development information. Adopt inputs to inform the development feasibility model.
2. **Demand and sales rates**
 - a. Assess historical and projected demand rates in Greater Shepparton with reference to historical and projected population and dwelling growth.
 - b. Assess median house price trends in Shepparton. Summarise selling price ranges for different lot sizes/dwelling typologies.
 - c. Summarise market inputs and adopt for the development feasibility, including demand rates (annual lot/dwelling sales), sales price by lot type and projected price growth (average annual).
3. **Development and construction costs**
 - a. Adopt lot construction rates (using recent benchmarks).
 - b. Research dwelling construction rates from local commercial builders;
 - c. Adopt certain assumptions for other costs such as financial (interest, holding costs), professional and marketing fees.
4. **Development feasibility model**
 - a. Prepare a development feasibility model for Shepparton South East PSP residential areas and assess the viability of development having regard to the Internal Rate of Return (IRR) and Return on Cost (ROC) benchmarks.
 - b. Estimate the overall impact of the proposed development contributions rate on project viability and housing affordability.

2. HOUSING & GROWTH CONTEXT

2.1. OVERVIEW

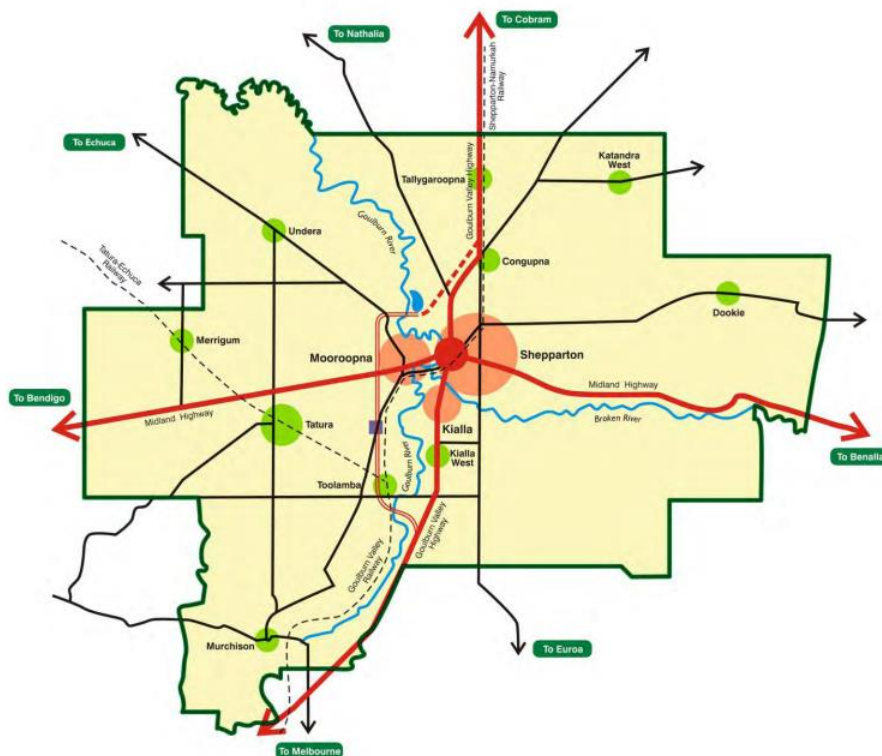
This sections provides an overview of the housing role and settlement status within the context of Greater Shepparton, including key growth corridors and land supply availability (and lot capacity).

2.2. HOUSING ROLE & SETTLEMENT STATUS

Clause 02.03-1 Settlement of the Shepparton Planning Scheme identifies Shepparton, Mooroopna and Kialla as the key settlements and population nodes that will accommodate the majority of residential growth across the municipality. These areas generally form Greater Shepparton's urban area, as shown in Figure 1.

The balance of residential growth (as identified in Clause 02.03-1) will be dispersed across smaller outlying settlements and rural areas, including Tatura, Murchison, Merrigum, Dookie, Congupna, Katandra West, Tallygaroopna, Toolamba and Undera.

F1. GREATER SHEPPARTON 2030 FRAMEWORK PLAN



Source: Greater Shepparton 2030 Strategy.

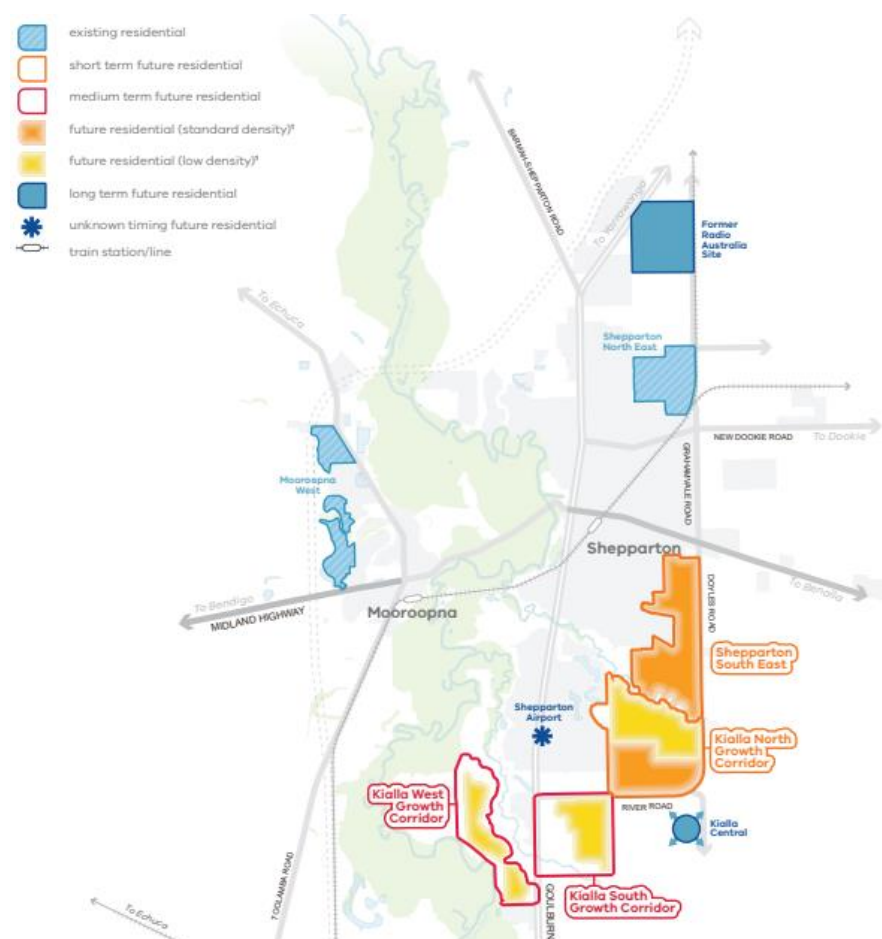
2.3. REGIONAL CITY GROWTH PLAN 2050

The Shepparton and Mooroopna 2050 Regional City Growth Plan, prepared by VPA in March 2021, is a strategic plan to guide the future growth of Shepparton and Mooroopna. The Plan identifies a series of residential growth areas which are to be delivered over the short to long term (1 year to 10+ years). Growth areas include:

- Shepparton South East;
- Kialla North Growth Corridor;
- Kialla South Growth Corridor;
- Kialla West Growth Corridor;
- Former Radio Australia site (located in Shepparton North);
- Kialla Central; and
- Shepparton Airport.

Growth corridors are highly concentrated to the south of Shepparton's CBD, particularly around Shepparton South East and Kialla. Figure 2 shows that Shepparton South East and Kialla North Growth Corridor (part) will be Shepparton's major growth areas serving residential demand for standard density housing (south of the CBD).

F2. RESIDENTIAL GROWTH AREA, SHEPPARTON MOOROOPNA



Source: Shepparton Mooroopna 2050 Regional City Growth Plan, VPA, March 2021.

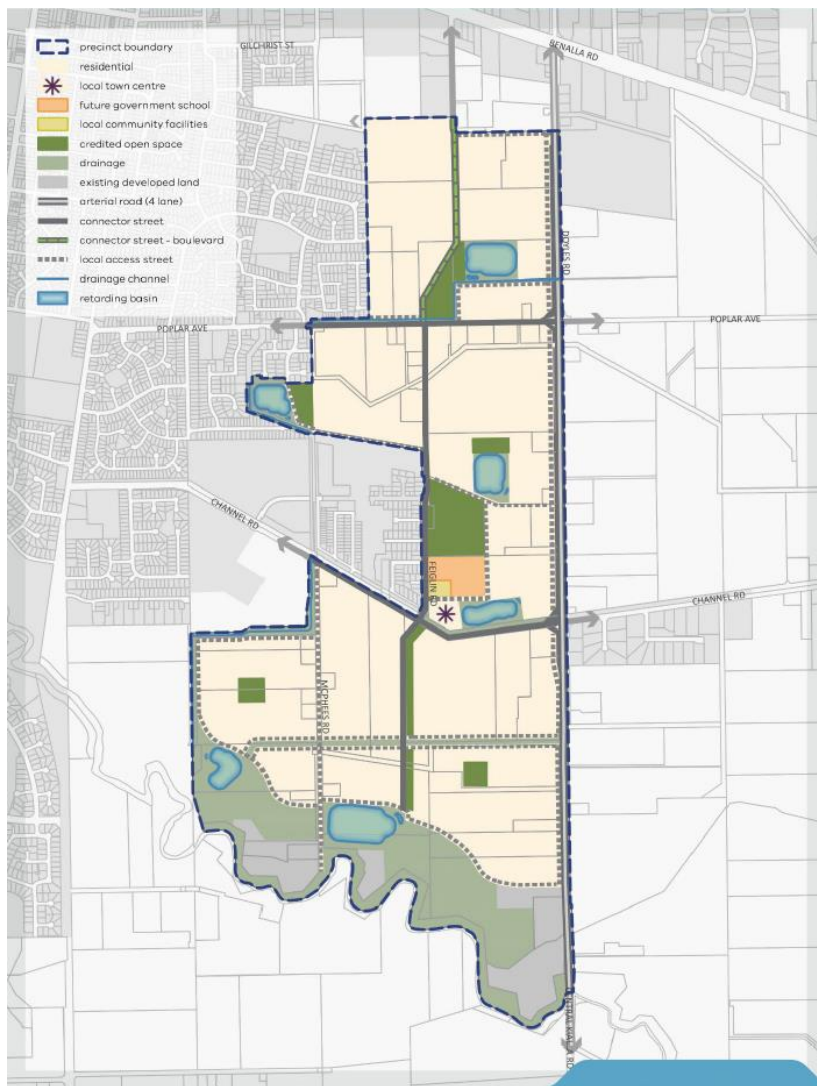
2.4. SHEPPARTON SOUTH EAST PSP

The Shepparton South East PSP area is generally bound by Benalla Road to the North, existing residential development to the west, Broken River to the south and Doyles Road to the east. The PSP will facilitate the development of the precinct, extending the urban area of Shepparton. The future urban structure in the PSP is shown in Figure 3.

The Gross Developable Area (GDA) for the Shepparton South East precinct is 385 hectares. The Net Developable Area (NDA) for residential uses is approximately 250 hectares.

Based on an average lot yield of 10 lots per net developable hectare, the Shepparton South East PSP area is estimated to accommodate approximately 2,500 dwellings and 6,000 residents at full development.

F3. FUTURE URBAN STRUCTURE



Source: Shepparton South East PSP (Agency Notification), VPA, Version 1, June 2022

2.5. RESIDENTIAL LAND SUPPLY & LOT CAPACITY

The Urban Development Program (UDP) provides an analysis of supply and demand for residential land across Greater Shepparton. Council commissioned Spatial Economics in October 2021 to prepare an Urban Development Program (UDP) for the municipality.

The following UDP (2021) findings are relevant:

- There is an estimated 8-14 years of zoned broadhectare land and 18 to over 25 years supply of unzoned broadhectare land in Greater Shepparton.
- Total lot capacity is in the order of 3,450 lots (for zoned land) and a further 7,468 (for unzoned land).
- Approximately 94% of zoned lot capacity is located in Shepparton's urban area.
- Almost all of Shepparton's future lot capacity is located in the Shepparton East PSP area (~2,500 lots), Kialla (1,082) and Grahamvale (1,160).

T1. BROADHECTARE LAND SUPPLY SUMMARY, GREATER SHEPPARTON

Town	Total lot capacity (Zoned Broadhectare Supply)	Total lot capacity (Unzoned Broadhectare Supply)	Total
Shepparton	1,985	2,500	4,485
Kialla	751	1,082	1,833
Grahamvale	0	1,160	1,160
Mooroopna	211	791	1,002
Congupna	0	840	840
Shepparton North	290		290
Shepparton Urban Area	3,237	5,533	8,770
Municipal balance (i.e. Tatura, Merrigum, Murchison)	213	1,935	1,935
Total Supply	3,450	7,468	10,705

Source: Residential Land Supply and Demand Assessment, Spatial Economics, January 2022.

2.6. KEY POINTS

- **Shepparton South East PSP area will be the major growth area in the municipality's urban area (~2,500 lot capacity).**
- **There are several growth corridors (both active and future) in Shepparton's urban area, including several active estates in Kialla and Shepparton south east.**
- **There is an estimated 8-14 years of zoned residential supply in Greater Shepparton, which is below the requirement (of at least 15 years) outlined in the State Planning Policy Framework.**
- **Approximately 94% of zoned lot capacity (~3,237) is in Shepparton's urban area. As these existing supply areas continue to be absorbed in the short to medium term, the need to augment practical land stocks in Shepparton South East PSP will increase.**

3. HOUSING DEMAND

3.1. OVERVIEW

The main driver of housing demand is population growth, owing to a combination of natural change (births, deaths) and migration. Other drivers include changes in demographics and housing market preferences (i.e. upsizers, downsizers etc), holiday home and investment purchases.

In order to adopt an expected sales rate for the Shepparton South East PSP area (to inform the development feasibility model), several data sets have been assessed, including projected population and dwelling growth and historical dwelling approvals.

Consultation with local real estate agents was also undertaken to gather recent information relevant to Shepparton's housing market, including the performance and sales rate of active residential estates in the south east growth corridors.

3.2. RESIDENTIAL MARKET TRENDS, REGIONAL VICTORIA

The impact of the COVID-19 pandemic on housing demand has varied across Victoria. In many regional towns and cities, the pandemic has contributed strongly to intra-state migration from increased movement from metropolitan to regional areas. This trend is influenced to different degrees by greater opportunities for remote work, perceived health and lifestyle benefits of regional areas, and ongoing congestion and affordability challenges in metropolitan Melbourne.

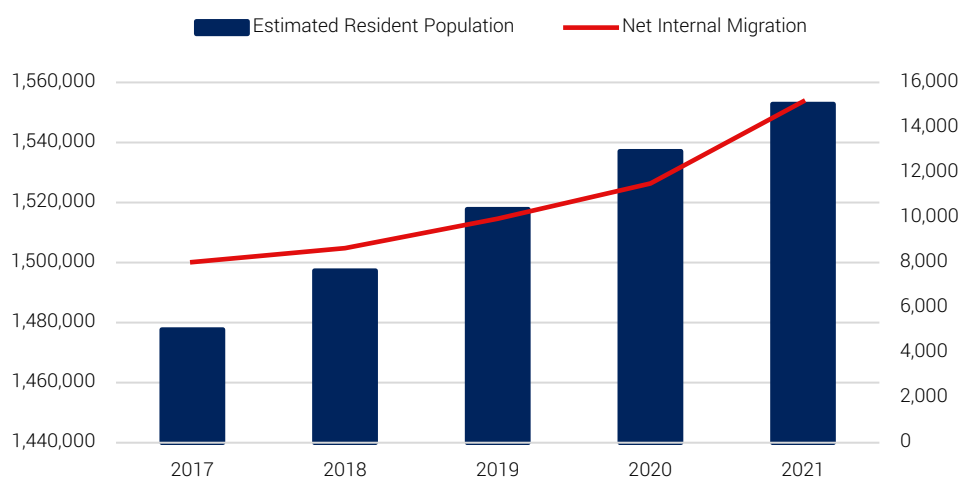
In the year to March 2021 (the first year of the pandemic), more than 16,000 new dwellings were approved for construction in Regional Victoria. When compared with the official government projection (VIF, 2019) for a total of 10,841 new dwellings per annum in the regions (2016 to 2026 average), recent approvals are 48% higher, resulting in considerably greater rates of urban growth and development, population growth and infrastructure requirements.

Throughout 2020 and 2021 during the height of the pandemic in Victoria, interest rates were at record lows (0.1%) and a raft of stimulus measures were introduced by the State Government targeting the housing and construction industry such as the Home Builder Scheme. Market and fiscal conditions during that time are likely to have brought forward demand in some regional areas, but the extent is not yet fully known. In many regional areas, the initial surge of demand has now begun to subside to some degree. Interest rate increases, inflationary pressures and relaxing of health restrictions are reducing some of the drivers of the pandemic period regional housing boom.

Figure 4 shows the trend in population growth in Regional Victoria, along with the increase in net internal migrants. Between 2017 and 2021, Regional Victoria's population increased by approximately 75,000 residents, with annual net internal migration increasing by 90%.

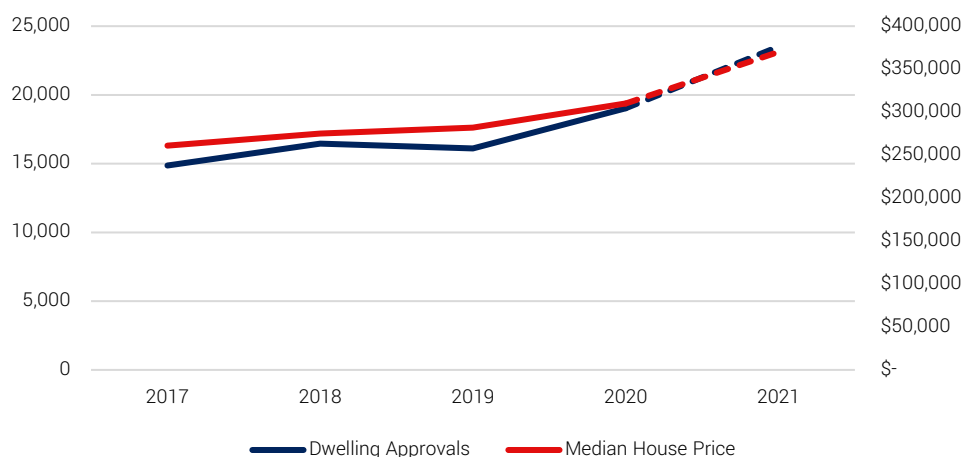
Dwelling approvals and median house prices in regional Victoria have also accelerated during the period of increasing migration, providing further evidence of strong market demand for housing (Figure 5).

F4. POPULATION GROWTH & NET INTERNAL MIGRATION, REGIONAL VICTORIA, 2017-2021



Source: ERP, components of population change, Regional Victoria ABS, 2017-2020.

F5. DWELLING APPROVALS & MEDIAN HOUSE PRICE, REGIONAL VICTORIA, 2017 TO 2021



Source: Dwelling approvals, ABS 2017-2021 / Median house prices, Valuer General

3.3. GREATER SHEPPARTON

Increasing house demand has also been evident in Greater Shepparton. Residential sales and house values data published in CoreLogic's Regional Market Update Report (Nov, 2021) highlighted above-average demand for housing throughout 2021.

In the 12 months prior to October 2021, the municipality recorded 1,223 house sales– an increase of almost 40% compared with the previous year. The median house value also increased by 18% over the 12 month period, growing to \$415,700.

T2. SALES INFORMATION, GREATER SHEPPARTON, 12 MONTHS TO OCT 2021

	No. of Sales	12 month change in sales volumes	Median Value	Days on the market
Houses	1,223	39.90%	\$415,697	39

Source: Regional Market Update, CoreLogic, November 2021. *August 2020 to August 2021.

Urban Enterprise's more recent experience in regional property markets indicates that demand for housing has softened from the peaks experienced in 2021 as a result of:

- Increasing interest rates (rising from a record low of 0.1% to 1.85%, with further increases expected);
- Inflationary pressures that are increasing the cost of living; and
- Normalising internal migration patterns after a period of flux during the first 2-years of the pandemic.

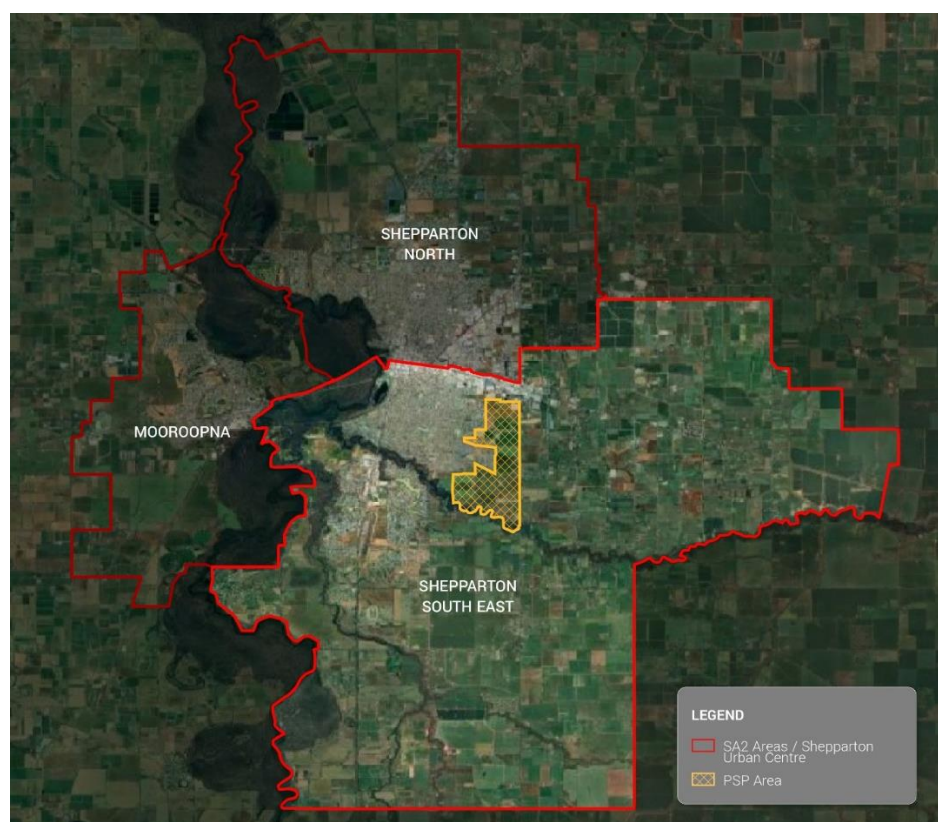
Whilst demand is softening on the back of cyclical economic conditions, it is important to identify the rate of underlying demand to inform long term demand assumptions for the development feasibility model.

3.4. GEOGRAPHIC AREAS

The focus for this housing demand analysis is Shepparton's urban area, as this generally functions as a single housing market. For the purpose of this assessment, outlying settlements and rural areas are excluded.

Data has been collected for Shepparton's urban area, which consists of three main geographic areas shown in Figure 6. The focus for this assessment is the Shepparton South East area; generally encompassing established areas to the south of Midland Highway and Kialla where the majority of the municipality's greenfield development is taking place.

F6. SHEPPARTON URBAN AREA

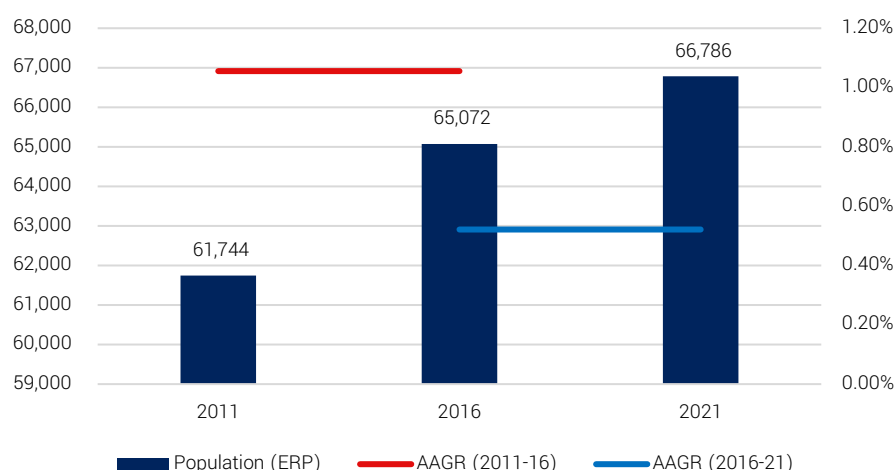


Source: Map prepared by Urban Enterprise 2022, based on ABS statistical Areas (2016) and indicative zone areas.

3.5. HISTORICAL GROWTH

In 2021, Greater Shepparton's population was approximately 66,800 residents. Between 2011 and 2021, the City's population increased by approximately 5,000 residents. The rate of growth slowed between 2016 and 2021 compared with the previous 5-years.

F7. HISTORICAL POPULATION GROWTH, GREATER SHEPPARTON, 2011 TO 2021



Source: Estimated Resident Population, Greater Shepparton, ABS, 2016 to 2021

3.6. POPULATION & DWELLING PROJECTIONS

In terms forecast population and dwelling growth, Greater Shepparton is projected to add around 9,900 residents and 5,596 dwellings in the 15 year period to 2036. This equates to an annual average increase of 660 residents and 370 dwellings, as shown in Table 3.

Shepparton South East is forecast to require around 190 new dwellings per annum (on average) to meet demand.

T3. FORECAST POPULATION GROWTH, 2021 TO 2036

Population	2021	2036	Change (2021-36)	AAC
Shepparton South East	25,100	30,605	+5,504	367
Shepparton Urban Area	53,270	62,843	+9,573	638
City of Greater Shepparton	67,764	77,693	+9,928	662
Dwellings	2021	2036	Change (2021-36)	AAC
Shepparton South East	10,129	12,990	+2,862	191
Shepparton Urban Area	22,420	27,711	+5,290	353
City of Greater Shepparton	28406	34002	+5596	373

Source: Victoria in Future, DELWP, Compiled by Urban Enterprise 2022

3.7. DWELLING APPROVALS

Another key indicator for housing demand is dwelling approvals, albeit approvals can only occur where there is land supply and capacity for development to occur. Historical dwelling approval data has been collected for Shepparton South East and the broader urban area (see Figure 6).

Between 2017 and 2021, Shepparton South East recorded an average of 185 dwelling approvals per annum. The South East has consistently accounted for around half of all approvals in the urban area, as shown in Table 4.

T4. ANNUAL DWELLING APPROVALS, 2017 TO 2021

Dwellings	Shepparton South East	Shepparton Urban Area	% of approvals in Shepparton SE
2017	117	227	52%
2018	164	309	53%
2019	200	357	56%
2020	181	322	56%
2021	265	548	48%
Average	185	342	54%

Source: Dwelling approvals, Shepparton, ABS, 2017 to 2021

3.8. HOUSE PRICE TRENDS

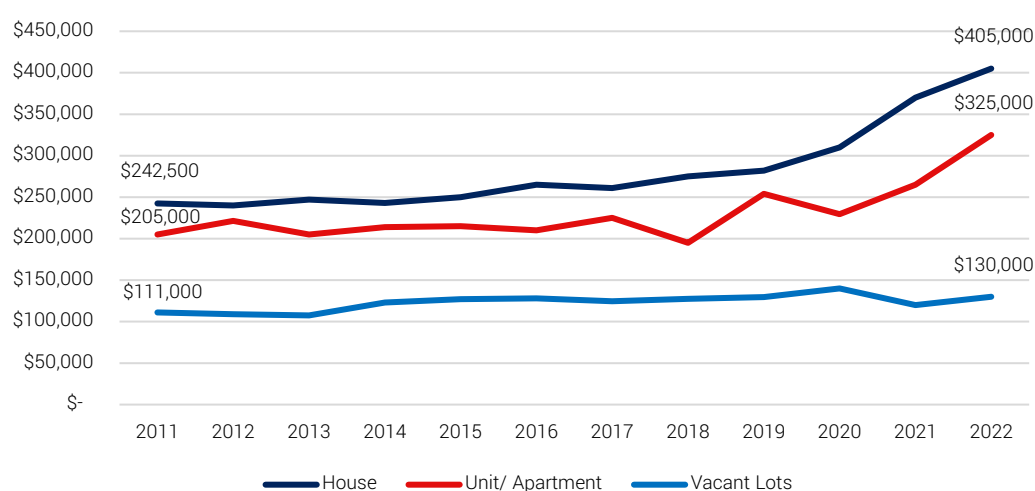
Price trends can indicate the strength of demand for housing, and can also reflect the availability of housing supply. Figure 8 shows the median house price trends for Shepparton between 2011 and 2021.

The current median house price in Shepparton is \$405,000, having experienced strong growth over the past couple of years (2020 to 2022). Between 2011 and 2019, Shepparton experienced relatively steady house price increasing from \$242,500 to \$282,000.

Typically, upward pressure on price occurs when one or a combination of supply and demand factors materialise, including constraints on housing stock availability and/or an uplift in demand for housing.

The uplift in price growth that Shepparton has recorded in recent years highlights the importance of delivering a rolling supply of 'market ready' lot and housing stock. If future development is stymied, increasing competition for stock may ensure, placing further upward pressure on pricing (potentially eroding housing availability and affordability).

F8. HOUSE PRICE TRENDS, GREATER SHEPPARTON



Source: Median house prices, Shepparton, Property Valuer

3.9. SAMPLE OF ACTIVE RESIDENTIAL ESTATES

The Shepparton South East PSP area can expect to develop in-line with product and densities delivered in nearby areas. There are several active residential estates (see Table 5) nearby that provide recent examples of lot and housing product and pricing.

The most comparable development proximate to the PSP area is Windsor Park Estate. Nearing completion, this 300-lot development includes lot sizes in the range of 600-900 sqm accommodating 3-4 bedroom detached dwellings. Recent sales in Windsor Park Estate are summarised in Table 6, providing recent evidence for price and product.

T5. SAMPLE OF ACTIVE RESIDENTIAL ESTATES, SHEPPARTON SOUTH EAST

Project	Location	Estimated Lot Yield	Status	Lots Completed
Windsor Park Estate	Shepparton South East	300	Active	228
The Nook	Shepparton South East	28	Active	0
Seven Creeks Estate	Kialla	390	Active	288
Sanctuary Park	Kialla	200	Active	170

Source: Urban Enterprise, 2022.

T6. SAMPLE OF SALES, WINDSOR PARK ESTATE

Address	Lot size	Sale price	Bedrooms	Date
4 Stirling Court	640	\$592,000	4	25/07/2022
10 Stirling Court	864	\$479,000	4	25/07/2022
2 Buckingham Street	686	\$565,000	3	17/07/2022
8 Stirling Court	765	\$485,000	3	13/07/2022
22 Buckingham Street	710	\$595,000	4	8/07/2022
6-8 Cezanne Drive	921	\$683,000	3	16/06/2022
27 Hillsborough Avenue	689	\$530,000	2	5/05/2022

Source: Sales, Windsor Park Estate, RealEstate.com (accessed July 2022).

3.10. ADOPTING A DEMAND RATE

Table 7 summarises several dwelling demand rates across Shepparton South East, which includes existing established areas in south east Shepparton and Kialla.

Dwelling approvals indicate an average annual rate of 185-215. This is generally in-line with VIF dwelling projections (191 p.a.).

T7. ANNUAL DWELLING DEMAND RANGE, SHEPPARTON SOUTH EAST

Indicator	Average annual rate
Forecast dwelling growth (to 2036)	191
Historical dwelling approvals (2015-21)	185
Historical dwelling approvals (2019-21)	215

Source: Dwelling approvals, ABS, 2017-21 / Forecast dwelling growth, VIF, DELWP, 2019

When adopting a demand rate, several factors should be considered, including:

- 1. Practical land supply availability** – The UDP identifies between 8-14 years of zoned land supply in Greater Shepparton, which is below the target requirements (at least 15 years) in the State Planning Policy Framework.

Shepparton South East PSP is Shepparton's major future growth corridor. As existing zoned land stocks continue to diminish in areas such as Kialla and nearby Windsor Park Estate, a notable level of demand can be expected to be transferred to the PSP area.

- 2. Underlying demand** – The municipality has recorded strong price growth in recent years, but is more than likely due to the raft of COVID-19 factors previously identified.

The housing market cycle in Greater Shepparton is in a period of correction on the back of economic conditions (high inflation, rising interest rates). There is, however, stable underlying demand for housing in Greater Shepparton, owing to consistent population growth over a long period of time.

The expected transfer of demand from active estates under development (i.e. in Kialla) to the PSP area, coupled with sound underlying demand fundamentals suggests that an average demand rate in-line with historical and projected rates is appropriate to adopt for the feasibility model. The upper end of the range is expected in the early years of the development period due to lessening 'market ready' stock across active estates in Kialla.

For the purpose of this feasibility analysis, the following lot sales rates (on average) are assumed in the PSP area:

- 150 lot sales p.a. in years 2-6;
- 130 lot sales p.a. in years 7-11;
- 120 lot sales p.a. in years 12-16; and
- 100 lot sales p.a. in years 17-21.

4. DEVELOPMENT FEASIBILITY

4.1. OVERVIEW

A financial feasibility model has been prepared for the subject area within the Shepparton South East PSP area to determine viability, and assess the overall impact of the proposed development contributions rate on project viability (IRR, ROC).

4.2. METHODOLOGY

To assess the viability of the subject area, a discounted cash flow analysis has been undertaken. A discounted cash flow (DCF) is a valuation method that is commonly used to estimate the value of an investment based on its future cash flows. DCF analysis finds the present value of expected future cash flows using a discount rate. The discounted cash flow analysis adopts a range of assumptions and are discussed further in this Section.

The DCF analysis is based on the assumption that the development of the subject area would be undertaken by a developer(s) who would seek a commercial return on the investment.

The major bank lenders will consider offering debt funding for residential development projects provided that certain pre-conditions are met. Typically, major lenders require the following pre-conditions to be met:

- An acceptable forecast financial outcome as reflected in the project's Internal Rate of Return (IRR) and/or return on cost;
- An acceptable level of information and detail supporting the development proposal; and
- Details of the track record of the proponent (i.e. experience, success in similar projects etc.)
- Typically, the benchmark IRR that would be sought by bank lenders is in the order of 20% and a similar level of ROC. For the purposes of this assessment, the project is considered to be viable at an IRR of 20%.

4.3. ASSUMPTIONS

A set of assumptions have been formulated and adopted in relation to development and construction costs, financial costs and income. These are discussed in-turn. A complete list of assumptions and source information is provided in **Appendix A**.

DEVELOPMENT INFORMATION

The discounted cash flow analysis is based on following development information:

- The NDA of the subject area is 249.73 ha;
- The ultimate lot yield is estimated at 2,500 lots (average 10/lots per NDHa); and
- The development period is ~21 years in line with our assessment of the likely lot absorption rate.

DEVELOPMENT COSTS

The following assumptions in respect of development costs have been adopted:

- Land acquisition assumes an average land value of \$308,819 per hectare (net).
- It is assumed that land is acquired by developers progressively. For the purposes of the cash flow, sufficient land is acquired for 3-4 years' development before the next land parcel is acquired. In reality, land will be acquired by developers in different timeframes to this, with some land being acquired upfront and other land being acquired on terms and so on.

- An average lot construction cost of \$101,190 per lot (includes development contributions of \$24,956 per lot as per the DCP summary).
- An average dwelling construction cost of \$376,000 per dwelling, plus a contingency cost of 5% per dwelling to account for unforeseen price increases and customer initiated add-ons.
- Marketing, selling and legal fees (3% of sales income).
- No allowance has been made for escalation of costs.

INTEREST

It is assumed that the development would be funded by debt. Land acquisition and development costs will be 100% debt funded initially. It is assumed that cash flow surpluses are used to progressively pay down debt. At the point at which the project achieves a positive cash flow position, it is assumed that subsequent stages of development will be funded by equity.

The adopted interest rate for the life of the development is 6% p.a.

INCOME

The adopted selling price for a house and land package for the subject area is \$655,000 (average). This is based on 57 transactions recorded in Kialla between 2021 and 2022 FY. The selling price assumes a 700-800 sqm lot with a 3-4 bedroom house (~270 sqm floorplate).

Based on the demand assessment in Section 3, an average sales rate of 119 per annum has been adopted, with a higher rate of sales (140-150) in the first half of the development period. No allowance has been made for selling price growth.

All lots and dwellings constructed in one year are assumed to be sold in the following year, and sales will commence in year 2 once lots/dwellings have been constructed at the end of year 1.

4.4. FINANCIAL OUTCOME

Based on the adopted set of assumptions, the hypothetical development of the subject area would result in the following financial outcomes:

- Total development cost of \$1.346 billion.
- Total income of \$1.638 billion.
- Internal Rate of Return (IRR) of 25.2%
- A Return on Cost (ROC) of 21.7%.

The discounted cash flow is provided in **Appendix B**.

Both the IRR and ROC metrics would satisfy the lending requirements of the major banks to provide debt funding for the development. Hence this would be considered a viable project.

There are several factors, however, that can impact viability, including development costs (e.g. lot construction costs, dwelling construction costs, and development contributions), projected sales rate, projected sales price and land values.

SALES RATES & LOT CONSTRUCTION

Based on our assessment, we have a reasonable level of confidence in the lot sales based on data collected for recent years.

We also have a reasonable level of confidence in the estimate for lot construction costs. These tend not to vary significantly due to ongoing actual experience with tender prices and actual costs. However, there may be unforeseen ground conditions that could impact cost but we consider that the contingency amount (10%) would cover any unforeseen issues.

DWELLING CONSTRUCTION

In terms of dwelling construction, there could be short term cost impacts based on the recent volatility in materials and labour costs. For example, the financial model in this assessment adopts a contingency of 5% for dwelling construction costs. There have been several issues impacting the residential construction sector that have inflated prices, largely caused by supply-chain issues from the COVID-19 pandemic.

It is difficult to say when these issues may resolve, but some developers are factoring in these issues by increasing contingency to 10%. If a contingency rate of 10% is adopted for this model, it reduces the IRR by around 5% (from 25% to 20.7%) and the ROC by around 4% (from 21.7% to 17.5%). If this scenario materialised, the ROC would fall below the minimum lending benchmark of 20%. This demonstrates the viability impact of unforeseen fluctuations in development costs. If the residential construction industry continues to experience price shocks that are above the contingency rate, then there is a possibility that construction contingencies will increase.

LAND VALUES

The adopted land value of \$308,819 per NDha is based on a 'before and after' valuation in June 2022. There is, however, some uncertainty regarding the broadhectare value of land within the precinct (i.e. the price which developers will pay for the land to develop). As an example, if broadhectare land values were to increase (say to \$400,000/NDha), this would have a flow-on effect on viability.

4.5. IMPACT OF LAND VALUES & DCP RATES ON VIABILITY

Given the uncertainty regarding broadhectare land values and their potential impact on viability we have undertaken a sensitivity analysis.

The question of broadhectare land value is less relevant if land within the subject area is still in original ownership or has been held in the same ownership for a number of years. In this case, investors and developers seeking to purchase the land will factor in the DCP rate and other development costs into the price they are prepared to pay to acquire the land, including development contributions. To put simply, the variability of factors such as development contributions will be considered prior to land acquisition, and will ultimately influence the residual value of the land (after development costs, profit and risk are factored in).

In the case where major landholdings are under investor and/or developer ownership (i.e. previously purchased), project viability will be influenced by the purchase price and the terms of the transaction. In other words, if the land acquisition cost is higher, then viability will be negatively impacted.

To demonstrate the impact that land value and DCP rates has on viability, four scenarios have been assessed for the subject area, and are as follows:

1. Base case land value with the proposed DCP rate (\$24,956 per lot);
2. Base case land value with a minimum DCP rate that would meet the threshold viability benchmarks;
3. Alternative (higher) land value with the proposed DCP rate (\$24,956 per lot);
4. Alternative (higher) land value with the proposed DCP rate but a higher average sales price that would meet the threshold viability benchmarks.

4.6. FINDINGS

Under scenario 1, the financial model indicates that the project would be viable, with an IRR and ROC that meets the threshold requirement of at least 20%.

Under scenario 2, the project would be viable with a DCP rate up to \$32,270 per lot (assuming the base case land value).

If scenario 3 was to materialise (i.e. higher land value), the project would deliver an IRR of 18.7% and a ROC of 20%. The IRR falls below the 20% threshold, and the ROC just meets the threshold, meaning that the viability of the project is considered marginal.

Hypothetically, developers can pull several levers to improve viability such as reducing development costs (if possible) or adjusting sales prices; effectively passing on some of the additional costs to the end buyer.

As an example (under scenario 4), the developer could increase the sales price expectations for a house and land package. To achieve an IRR of 20%, the average selling price would need to increase by approximately \$8,000; representing a 1.2% increase.

T8. LAND VALUE & DCP IMPACT ON VIABILITY

Scenario		Land value per NDHa	DCP rate	Ave. sales price	IRR	ROC
1	Base case (with proposed DCP rate)	\$308,819	\$24,956	\$655,000	25.2%	21.7%
2	Base case (with a minimum DCP rate that is viable)	\$308,819	\$32,270	\$655,000	23%	20%
3	Alternative land value scenario (with proposed DCP rate)	\$400,000	\$24,956	\$655,000	18.7%	20%
4	Alternative land value scenario (with a higher sales price)	\$400,000	\$24,956	\$663,000	20%	21.3%

Source: Urban Enterprise, 2022

APPENDICES

APPENDIX A DCF ASSUMPTIONS

COMPONENT	ASSUMPTION	SOURCE
Development Information	<ul style="list-style-type: none"> Net Developable Area: 249.73 Ha Average lot density: 10 lots per Ha Total lot yield: 2,500 lots Development period: 21 years 	Agency Notification, Shepparton South East PSP, VPA, June 2022
Planning Period	6-12 months prior to first stage of development commencing	Urban Enterprise, 2022
Construction Period	12-18 months to deliver first stages of lots/dwellings, then 12 months	Urban Enterprise, 2022
Selling Period	12 months (house and land packages). Annual lots/dwellings constructed are assumed to be sold in the following year (119 per annum, on average)	Urban Enterprise, 2022
Lending Requirements (threshold benchmarks)	<ul style="list-style-type: none"> 20% Internal Rate of Return 20%-25% Return on Cost 	Development Funding Parameters, Bank of Melbourne
Land Value	Base case: \$308,819 (2022 dollars) Alternative higher scenario: \$400,000 (2022 dollars)	Land Valuation Assessment, Shepparton South East PSP, LG Valuation Services, June 2022
Lot Construction Costs	Lot construction cost (\$101,190 per lot), includes: <ul style="list-style-type: none"> \$62,438 for Internal estate works (+10% contingency) \$24,956 for development contributions \$1,300 for construction supervision and checking fees \$1,042 for public open space contributions \$2,396 for sewerage fees and charges \$2,396 for water supply fees and charges \$182 for electricity fees and charges \$600 for communications fees and charges \$5,880 for professional fees 	Urban Enterprise, 2022, derived from: <ul style="list-style-type: none"> Hypothetical Opinion of Probable Cost, Wonthaggi North East PSP, Spiire, March 2022 DCP summary, VPA, 2022
Dwelling Construction Costs	\$376,000 per dwelling (ave) (+5% contingency)	Average cost to construct a 4-bedroom house (270 sqm), building price list for Shepparton, Diverse Builders, 2022
Finance	Interest Rate (6%) Development is 100% debt funded. It is assumed that cash flow surpluses are used to progressively pay down debt. At the point at which the project achieves a positive cash flow position, it is assumed that subsequent stages of development will be funded by equity	Urban Enterprise, 2022
Other costs	Marketing and selling fees (3% of sales income)	Urban Enterprise, 2022
Selling Price (House and Land Package)	\$655,000 (ave) for a 3-4 bedroom house and land package	Source: Derived from sales evidence in Kialla, REIV (2021 and 2022 transactions only).

APPENDIX B DISCOUNTED CASH FLOW (BASE CASE)

