



Appendix D: Employment land demand and capacity

Alpine Shire Council

Land Development Strategy

November 2023





Independent
insight.



ALPINE
SHIRE COUNCIL

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1. Employment forecasts

This section provides an estimate of future employment by industry in Alpine Shire to 2041.

1.1 Employment forecasts method

SGS Small Area Land Use Projections Model (SALUP) Forecasts

The SGS SALUP employment forecasts are derived as follows:

- Historical and **base year employment by industry** is recalibrated to adjust for undercount in raw ABS Census data (typically around 20 per cent but this varies across industries). This is done in two steps:
 - First, SGS systematically distributes geographically unallocated/undefined categories to a spatial location. This is done for 1 digit ANZSIC industries and across six geographic levels: Travel Zones, Statistical Area 2, Statistical Area 3, Statistical Area 4, Greater Capital City Statistical Areas, and State.
 - This corrects for spatial undercount in the census and ensures that reallocations are at the most appropriate geographic level possible.
 - Next, this intermediate employment by industry estimate is further recalibrated at the state level based on the official ABS Labour Force Survey employment count.
 - This corrects for the non-spatial undercount in the census¹.
- **Victorian employment by industry** is forecast using detailed trends analysis of employment by industry from the ABS Labour Force Survey, Census Journey to Work, projected workforce and analysis of major-economic factors regarding structural changes in the broader economy drawing on state and national publications. A number of indicator series are created to understand how the employment by industry projections align with recent trends, and align with key age segments (i.e. age cohorts).
- **Employment forecasts are then disaggregated to the Statistical Area 3 level** using trend analysis and a range of indicator series to distribute employment by industry. This ensures population serving employment (i.e. retail, education, etc) is shifted to where population growth is forecast while the spatial distribution of other industries follows other locational drivers². A 'new developments database' is also used to capture major renewal sites and policy interventions which shift employment from a base trend.

¹ e.g. Individuals who did not submit census forms, or inadequate industry of employment responses

² e.g. Accessibility and supply of land

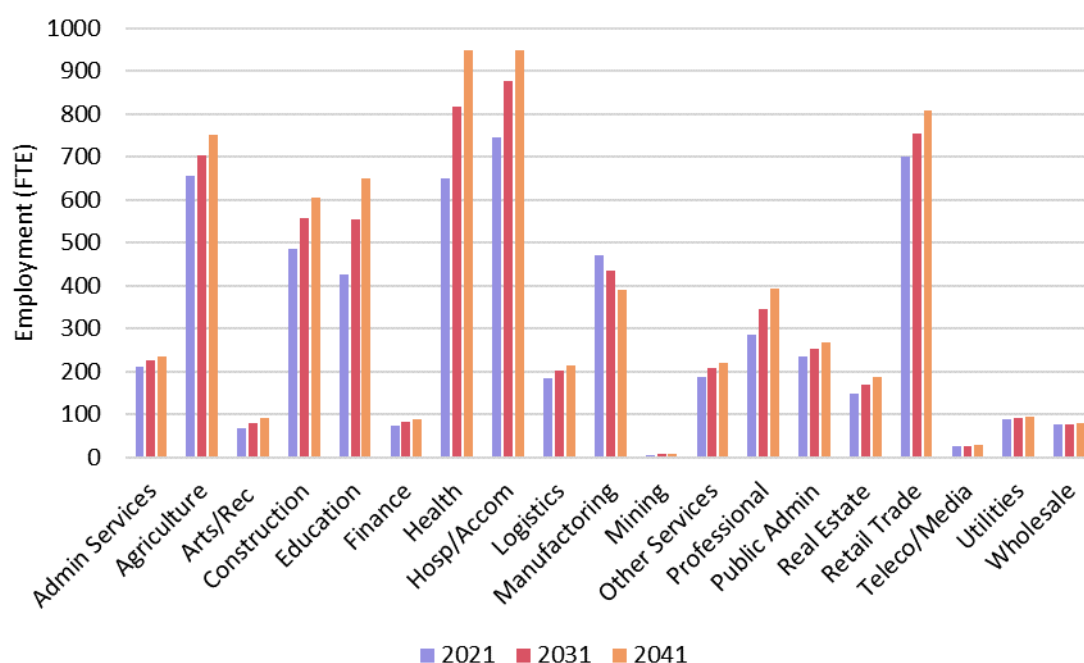
- Statistical Area 3 **employment is then further disaggregated** to SAM zones³ based on current trends and the 'new development database' to capture key change areas.

1.2 Employment forecast results

A key driver of employment land demand in Alpine Shire is municipal-wide jobs growth. The following section presents future employment growth across the Shire and by major towns utilising SGS's Small Area Land Use Projections (SALUP) model. SALUP provides employment forecasts for across Victoria in small areas called travel zones (there are 59 Travel Zones in the Alpine Shire). The forecasts are broken down to the one-digit Industrial classifications for Australia and New Zealand (ANZSIC) used by the Australian Bureau of Statistics.

Shire-wide employment projections by industry are shown in Figure 1.

FIGURE 1: EMPLOYMENT BY ANZSIC CATEGORY, ALPINE SHIRE, 2021-2041



Source: SALUP, 2019

To determine employment growth within Alpine Shire's primary employment areas, each SALUP Travel Zone was categorised into five policy relevant Broad Land Use Categories (BLUC), with high level corrections made to account for multiple BLUCs occurring within some zones. Table 1 outlines the categories utilised and their definitions.

The BLUC categories have been created to split the Alpine LGA's future employment needs into locational categories relevant to land use planning. Council needs to ensure that there is an adequate

³ A SAM Zone is a geographic unit created by SGS. It can be aggregated up to standard ABS geographies such as Statistical Areas 1 and Suburbs and Local Government Areas.

supply of land for industrial activity and employment within centres. Employment in other locations, particularly rural areas, is likely to be less constrained and to require less monitoring or intervention from Council.

TABLE 1: BROAD LAND USE CATEGORY AND RELEVANT ZONING, ALPINE SHIRE

Land use category	Definition
Local centre	The commercial core of larger towns, designated by the Commercial 1 Zone.
Industrial/services	Areas containing industrial activity, designated by Industrial 1 Zone, Industrial 2 Zone, and the Mixed Use Zone. While the Mixed Use zone allows a broad range of land uses (including residential), it generally supports light industrial and urban services uses in Alpine Shire.
Dispersed accommodation	Accommodation and hospitality uses in non-employment zones.
Large Town	All other urban areas outside of defined commercial and industrial zones. This category includes employment uses (other than hospitality and accommodation) such as schools, medical uses, health and recreation facilities, public administration uses etc.
Rural/other	All non-urban zoned areas.

Source: SGS Economics and Planning, 2022

Total employment by BLUC at 2021 is shown in Table 2. According to this analysis, local centres and industrial/services areas each accommodate around 30 per cent of employment in the Shire. The remainder is spread throughout other parts of the larger towns, the remaining smaller towns and rural areas of the LGA. Most of the employment in the rural areas is associated with agriculture.

Table 3 shows total employment by BLUC for each of the Shire's main towns (Myrtleford, Bright-Porepunkah, and Mount Beauty). It shows that these towns accommodated 76 per cent of the total employment in 2021.

TABLE 2: BROAD LAND USE CATEGORY EMPLOYMENT, ALPINE SHIRE, 2021

Land use category	Employment in 2021	% total employment
Local centre	1,627	30%
Industrial/services	1,623	30%
Dispersed accommodation	236	4%
Large town	748	14%
Rural/other	1,241	23%
Total	5,476	100%

Source: SGS Economics and Planning, 2022

TABLE 3: BROAD LAND USE CATEGORY EMPLOYMENT, MAIN TOWNS, 2021

	Local centre	Large town	Industrial/ services	Dispersed accomm	Rural/ other	Total	%
Myrtleford	619	388	536	-	142	1,686	30%
Bright-Porepunkah	752	291	327	203	152	1,725	30%
Mount Beauty & Tawonga South	186	173	344	19	189	911	16%
Other	191	-	471	-	676	1,337	24%
Total	1,747	852	1,679	222	1,158	5,659	100%

Source: SGS Economics and Planning, 2022

Table 4 details the total expected increase in employment across the Shire for each BLUC from 2021 to 2041. Table 5 shows the same results for each of the Shire's main towns.

TABLE 4: EMPLOYMENT GROWTH ACROSS ALPINE, 2021-2041

	2021	2041	Total change 2021-2041	% change 2021-2041	Average annual growth rate
Local centre	1,747	2,162	414	24%	1.1%
Industrial/ services	1,679	1,843	165	10%	0.5%
Dispersed accommodation	222	283	61	27%	1.2%
Large town	852	1,218	366	43%	1.8%
Rural/other	1,158	1,415	257	22%	1.0%
Total	5,659	6,922	1,263	22%	1.0%

Source: SALUP, 2019

TABLE 5: EMPLOYMENT GROWTH, MAIN TOWNS, 2021

	2021	2041	Total change 2021-2041	% change 2021-2041	Average annual growth rate
Myrtleford	1,686	2,329	643	38%	1.6%
Bright-Porepunkah	1,725	2,352	627	36%	1.6%

	2021	2041	Total change 2021-2041	% change 2021-2041	Average annual growth rate
Mount Beauty & Tawonga South	911	1,265	354	39%	1.7%
Other	1,337	1,550	212	16%	0.7%
Total	5,659	7,496	1,836	32%	1.4%

Source: SALUP, 2019

2. Employment floorspace demand

Using the jobs forecasts from the previous chapter, this section estimates expected future demand for employment floorspace in Alpine Shire. Estimates of employment floorspace demand for each of the Shire's main towns are also provided.

2.1 Employment floorspace estimates

High-level employment floorspace ratios were used to convert jobs forecasts to a gross estimate of employment floorspace (sqm) by BLUC (Table 6). These ratios are standard estimates of how densely buildings may be used for employment and are approximated based on the development patterns of existing employment uses.

TABLE 6: EMPLOYMENT-TO-FLOORSPACE RATIOS, ALPINE SHIRE

Land use category	Employment-to-floorspace ratio (sqm)
Local centre	35
Industrial/services	120
Dispersed accommodation	150
Large town	50
Rural/other	50

Source: SGS Economics and Planning, 2022

This produced a total floorspace demand for each BLUC. By comparing results for future years to results for 2021, it is possible to estimate how much additional floorspace may be required to accommodate increased employment in key BLUCs in the LGA.

Table 7 outlines the additional estimated floorspace needed per BLUC in the future. The category that is expected to have the highest floorspace demand is industrial/services due to the low density of activity typical of this BLUC. Local centres are expected to require 14,502 sqm of additional floorspace.

Large town is also expected to require a large amount of additional floorspace, but much of this would be expected to be provided in dispersed facilities like schools and hospitals meaning that this demand would not represent widespread and largescale change within towns.

Additional demand for rural/other is likely to be spread between existing smaller towns and agricultural uses, and so may represent minimal change in most rural areas and is not likely to require substantial planning work to be accommodated.

TABLE 7: FLOORSPACE DEMAND BY INDUSTRY CATEGORY, ALPINE SHIRE, 2021 TO 2041 (SQM)

	2031	2041
Local centre	+8,259	+14,502
Industrial/services	+12,118	+19,756
Dispersed accommodation	+5,918	+9,125
Large town	+10,469	+18,288
Rural/other	+7,036	+12,851
Total	+43,801	+74,522

Source: SGS Economics and Planning, 2022

TABLE 8: FLOORSPACE DEMAND CHANGE BY INDUSTRY CATEGORY, MAIN TOWNS, 2021 TO 2041 (SQM)

	Local centre	Large town	Industrial/s services	Dispersed accommodation	Rural/other	Total
Myrtleford	6,271	8,827	6,871	-	1,553	23,521
Bright-Porepunkah	5,234	5,775	6,730	8,270	153	26,162
Mount Beauty & Tawonga South	879	3,686	8,278	855	1,006	14,706
Other	2,118	-12,033	-2,123	-	10,138	10,134
Total	14,502	6,255	19,756	9,125	12,851	74,522

Source: SGS Economics and Planning, 2022

3. Employment land capacity

This section assesses the capacity to accommodate forecast demand for employment land under existing planning controls.

3.1 Capacity assessment method

An assessment has been undertaken to determine the extent to which forecast demand for employment floorspace can be accommodated within existing industrial and commercial zoned areas.

The employment capacity assessment identifies land available for development or redevelopment, and how much additional floorspace could be accommodated on that land. It takes into consideration the following factors:

- **Existing development patterns:** Existing development and lot size patterns (i.e site coverage) were examined by zone and town to determine likely potential future development outcomes.
- **Land use exclusions:** Properties were excluded if they contain social infrastructure or other land uses which are likely to be in place over the next 20 years. These include schools, community centres, aged care facilities, private hospitals, large places of public worship and clubs.
- **Areas subject to natural hazards (bushfire, flooding, excessive slope):** Clause 13 of the Alpine Planning Scheme Planning Policy Framework addresses Environmental Risk. Areas subject to flooding and bushfire risk, steep slopes (as a proxy for landslip), and within environmental buffers (i.e from the Wastewater Treatment Plant) were removed from the analysis)

Total current zoned area by town is shown below, with the Industrial 2 Zone area grouped with Myrtleford and employment zones near Mount Beauty grouped with Mount Beauty.

TABLE 9: TOTAL LAND AREA (SQM) BY EMPLOYMENT ZONE AND TOWN

	Employment zone	Land area (sqm)
Bright	Commercial 1 Zone	90,524
	Industrial 1 Zone	118,1013
Myrtleford	Commercial 1 Zone	98,900
	Industrial 1 Zone	356,813
	Industrial 2 Zone	820,163
	Mixed Use Zone	60,220
Mount Beauty	Commercial 1 Zone	37,775
	Industrial 1 Zone	42,448

Employment zone		Land area (sqm)
	Mixed Use Zone	56,422
Other	Township Zone	2,091,268
Total		3,772,546

Source: SGS Economics and Planning, 2022

3.2 Development Density Scenarios

Three alternative employment capacity scenarios were tested, showing how much additional employment generating floorspace could be accommodated under different development futures:

- **Low Density scenario:** Only includes currently vacant sites while excluding sites with environmental constraints.

The low scenario assumes site coverage and development densities like current typical values across the LGA, which are relatively low density.

- **Medium Density scenarios:** Accounts for potential of sites with existing development but low site coverage (up to 50 per cent) to be redeveloped at a higher density because of additional demand. Sites subject to environmental constraints have been excluded.

Under this scenario, sites would be developed at a higher intensity of use corresponding to the mid-upper range of what is currently seen in the LGA.

- **High Density scenario:** Assumes a high rate of redevelopment of commercial and industrial sites, only excluding those containing two or more dwellings, or with an existing site coverage greater than 80 per cent.

Under this scenario, sites would be much more intensively used, with all development yielding near the maximum density currently seen in the LGA.

The low scenario is the most likely and status-quo of the scenarios, while the medium scenario represents an increase in development and density based on an increase in demand. The high scenario represents somewhat of a theoretical maximum of how much development could be accommodated. It is very unlikely that this level of development would be achieved.

3.3 Land available for development

The following tables show a summary of land available for development or redevelopment under each scenario based on existing zoning patterns across the Shire (Table 10) and for each of the main towns by zone (Table 10). There is limited vacant land in the Commercial 1 Zone and Industrial 1 Zone outside of Myrtleford North or in the Mixed Use Zone (shown by the low scenario). Land availability is much higher under the medium and high scenarios where some redevelopment of sites which are not vacant is expected to occur.

TABLE 10: SCENARIO COMPARISON OF LAND AVAILABLE FOR DEVELOPMENT BY ZONE, ALPINE SHIRE, 2022 (SQM)

Zone	Low Density scenario	Medium Density scenario	High Density scenario
Commercial 1 Zone	12,296	77,782	193,474
Industrial 1 Zone (excluding Myrtleford North)	22,390	98,975	153,268
Industrial 1&2 Zone & Myrtleford North Industrial 1 Zone	919,601	1,030,070	1,058,831
Mixed Use Zone	2,213	26,999	108,653
Township Zone	643,736	739,470	2,016,188
Total	1,600,236	1,981,624	3,646,111

Source: SGS Economics and Planning, 2022

TABLE 11: SCENARIO COMPARISON OF LAND AVAILABLE FOR DEVELOPMENT BY MAIN TOWN, ALPINE SHIRE, 2022 (SQM)

Zone	Low Density scenario	Medium Density scenario	High Density scenario
Bright	4,280	40,165	185,551
Commercial 1 Zone	4,280	31,836	69,854
Industrial 1 Zone	-	8,329	115,697
Mount Beauty	8,191	61,964	131,847
Commercial 1 Zone	398	13,221	34,537
Industrial 1 Zone	6,770	36,063	42,448
Mixed Use Zone	1,023	12,680	54,863
Myrtleford	24,428	109,955	253,693
Commercial 1 Zone	7,618	32,725	89,084
Industrial 1 Zone	15,621	62,912	110,820
Mixed Use Zone	1,189	14,319	53,789
Myrtleford North Industrial	919,601	1,030,070	1,058,831

Zone	Low Density scenario	Medium Density scenario	High Density scenario
Industrial 1 Zone	99,438	209,907	238,668
Industrial 2 Zone	820,163	820,163	820,163
Other	643,736	739,470	2,016,188
Township Zone	643,736	739,470	2,016,188
Total	1,600,236	1,981,624	3,646,111

Source: SGS Economics and Planning, 2022

3.4 Net capacity

Net capacity is the amount of additional employment floorspace capacity that could be built on available sites, after existing commercial and industrial floorspace has been accounted for. This is the amount of floorspace that could be realised to meet the additional employment demand needs by 2041. This is calculated by comparing the total employment floorspace capacity less the existing employment floorspace.

The table below shows net capacity for employment generating floorspace across the LGA. Only the low and medium scenarios are included as they are the most reasonable, and development outcomes may fall between them.

According to these results, there is net capacity of between approximately 400,000 sqm and 570,000 sqm of employment floorspace across the Shire. However, not all of this capacity is on land that would be suitable or attractive for much of the future demand.

In more detail, the results show:

- Over half of net employment capacity is available within the industrial area north of Myrtleford. However, part of this site is currently occupied by Australian Forest Industry Mills and the remainder may not be available for further industrial development in the near term.
- There is theoretically a considerable amount of capacity for employment uses within the Township Zone, however the township zone in the Alpine context is largely used for dwellings with some limited employment uses. It is unlikely to be suitable to accommodate much of the additional demand beyond that for additional activity in rural towns.
- There is very limited capacity for additional employment floorspace within areas zoned Commercial 1 without further redevelopment and densification, particularly in Mount Beauty and Myrtleford.
- There is limited capacity for additional employment floorspace in the Industrial 1 or Mixed Use Zone unless redevelopment of sites with existing development occurs.

TABLE 12: NET EMPLOYMENT FLOORSPEACE CAPACITY BY TOWN AND ZONE, ALPINE SHIRE, 2022

	Employment zone	Low scenario - land area (sqm)	Medium scenario - land area (sqm)
Bright	Total	2,140	22,378
	Commercial 1 Zone	2,140	20,858
	Industrial 1 Zone	0	1,520
Myrtleford	Total	8,019	34,830
	Commercial 1 Zone	3,757	20,328
	Industrial 1 Zone	3,905	11,467
	Mixed Use Zone	357	3,035
Myrtleford North Industrial	Total	229,900	298,864
	Industrial 1 Zone	24,859	52,815
	Industrial 2 Zone	205,041	246,049
Mount Beauty	Total	2,132	19,481
	Commercial 1 Zone	199	7,595
	Industrial 1 Zone	1,625	6,618
	Mixed Use Zone	307	5,267
Other	Township Zone	157,117	192,662
Total		399,307	568,215

Source: SGS Economics and Planning, 2022

3.5 Employment floorspace gap analysis

A comparison of net employment floorspace demand and net capacity for Alpine Shire was conducted based on the Industrial/Service and Local Centre BLUCs. These categories are the focus of assessment as they align with areas zoned for industrial and commercial activity, which are most constrained for employment growth. The net capacity figures were based on the appropriate zones of MUZ and IN1Z for Industrial/service as well as C1Z for local centres.

Table 13 presents net capacity, however the IN1Z value was adjusted to exclude land in the Myrtleford North industrial area (zoned IN22) as this site accommodates the Mill and is not available for development for other industrial uses.

Employment floorspace requirements are assessed against both the low and medium employment floorspace capacity results. The results show that under the low capacity scenario, there is expected to

be a shortfall in supply of approximately 21,968 sqm of floorspace. This includes an undersupply of around 8,400sqm for Local Centres and 13,600 for Industrial/ Services areas.

Under the medium scenario, which allows for a moderate level of re-development and intensification, there is expected to be an oversupply of employment land in the order of 43,000sqm, including an excess of around 8,200sqm in Industrial/ Service areas and 34,300sqm in Local Centres.

There is greater potential for redevelopment and intensification of use in commercial centres (in alignment with the medium capacity scenario) due to the higher value of land uses in these locations. As such, additional demand for employment is likely to be absorbed within the extent of existing Commercial 1 Zone areas without the need to rezone further land.

A modest rezoning of land for industrial uses could be supported in Myrtleford, Bright-Porepunkah and Mount Beauty-Tawonga South to accommodate the projected increase in industrial/Services floorspace.

TABLE 13: NET EMPLOYMENT FLOORSPACE DEMAND VS CAPACITY, ALPINE SHIRE - 2041

		Demand	Low employment floorspace capacity scenario			Medium employment floorspace capacity scenario		
			Net capacity	Gap (sqm of floorspace)	Gap (sqm of vacant land)	Net capacity	Gap (sqm of floorspace)	Gap (sqm of vacant land)
Myrtleford	Industrial	13,317	4,262	-9,055	-36,221	14,501	1,184	3,947
	Local centre	9,041	3,757	-5,285	-10,570	20,328	11,287	14,108
	Subtotal	22,359	8,019	-14,340	-46,791	34,830	12,471	18,056
Myrtleford North Industrial	Industrial		229,900	229,900	919,601	298,864	298,864	919,601
Bright-Porepunkah	Industrial	11,591	0	-11,591	-46,365	1,520	-10,071	-33,570
	Local centre	8,019	2,140	-5,880	-11,759	20,858	12,838	16,048
	Subtotal	19,611	2,140	-17,471	-58,124	22,378	2,767	-17,522
Mount Beauty—Tawonga South	Industrial	12,537	1,932	-10,605	-42,420	11,885	-652	-2,174
	Local centre	1,383	199	-1,184	-2,369	7,595	6,212	7,765
	Subtotal	13,921	2,132	-11,789	-44,789	19,481	5,560	5,591
Other	All	17,882	157,117	139,235	556,940	192,662	174,780	582,599

4. Implications for the Land Development Strategy

- To compare the two components the net capacity and net demand were calculated for the Broad Land Use Categories of industrial/services and local centres. These two broad categories represent employment that fits into the zones of MUZ, IN1Z and C1Z. It is important to note that land in Myrtleford North Industrial area was excluded as this land is currently occupied by Australian Forest Industry Mills and is unlikely to be made available for further industrial development in the near term.
- Two capacity scenarios were analysed against demand: low and medium. These scenarios were analysed as they represent the most realistic outcomes. The low scenario only addresses vacant sites whereas the medium scenario accounts for some potential for redevelopment and intensification – both scenarios exclude sites with environmental constraints.
- Overall, there is sufficient capacity within existing commercial zoned employment areas to accommodate forecast employment growth. A modest rezoning of land is supported to ensure sufficient land supply over the long term in Myrtleford, Bright-Porepunkah and Mount Beauty-Tawonga South to service local needs.
- Structure planning and community infrastructure planning after adoption of the LDS will more clearly define integration of employment need in these towns and address interface considerations.
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