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Development forecasts for Loch

for South Gippsland Shire Council

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Report Data

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Please Note

The findings of this report have relied on professional judgement as well as on primary and secondary data sources. Whilst the author believes any assumptions contained in the report are reasonable, the reader should bear in mind that there is no certainty in prediction.

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1 Introduction

1.1 About this Project

South Gippsland Shire Council is preparing structure plans for the townships of Nyora, Poowong and Loch to guide future development. This planning process is required as a result of the impending introduction of reticulated sewerage services to the towns. The provision of sewerage is expected to enable the provision of urban sized allotments with a potential increase in the rate of population growth as a result. The rate of business investment in the towns may also be increased.

To assist the planning process, Council is keen to understand the supply and demand issues associated with housing, commercial and industrial activity in the townships over the next 20 years and beyond.

1.2 About this Report

This report has been prepared by Tim Nott and Matters More to assist Council in its preparation of a structure plan for **Loch**. The report examines the key drivers of growth in the area and provides a number of scenarios for development.

The report is in several sections:

- Section 2 provides the development context of Loch, including the current land-use, recent population and housing growth, and the external links of the population (chiefly their work destinations)
- Section 3 looks at the potential changes to land-use being contemplated in the structure planning process
- Section 4 provides several scenarios for population and housing growth in the future based on different assumptions about how the township will develop
- Section 5 uses the population scenarios to derive likely demand for retail and commercial facilities
- Section 6 provides an estimate of industrial development under each scenario, based on the existing activity and the forecasts for population growth
- Section 7 provides a summary and comparison of the various development scenarios

2 Development Context

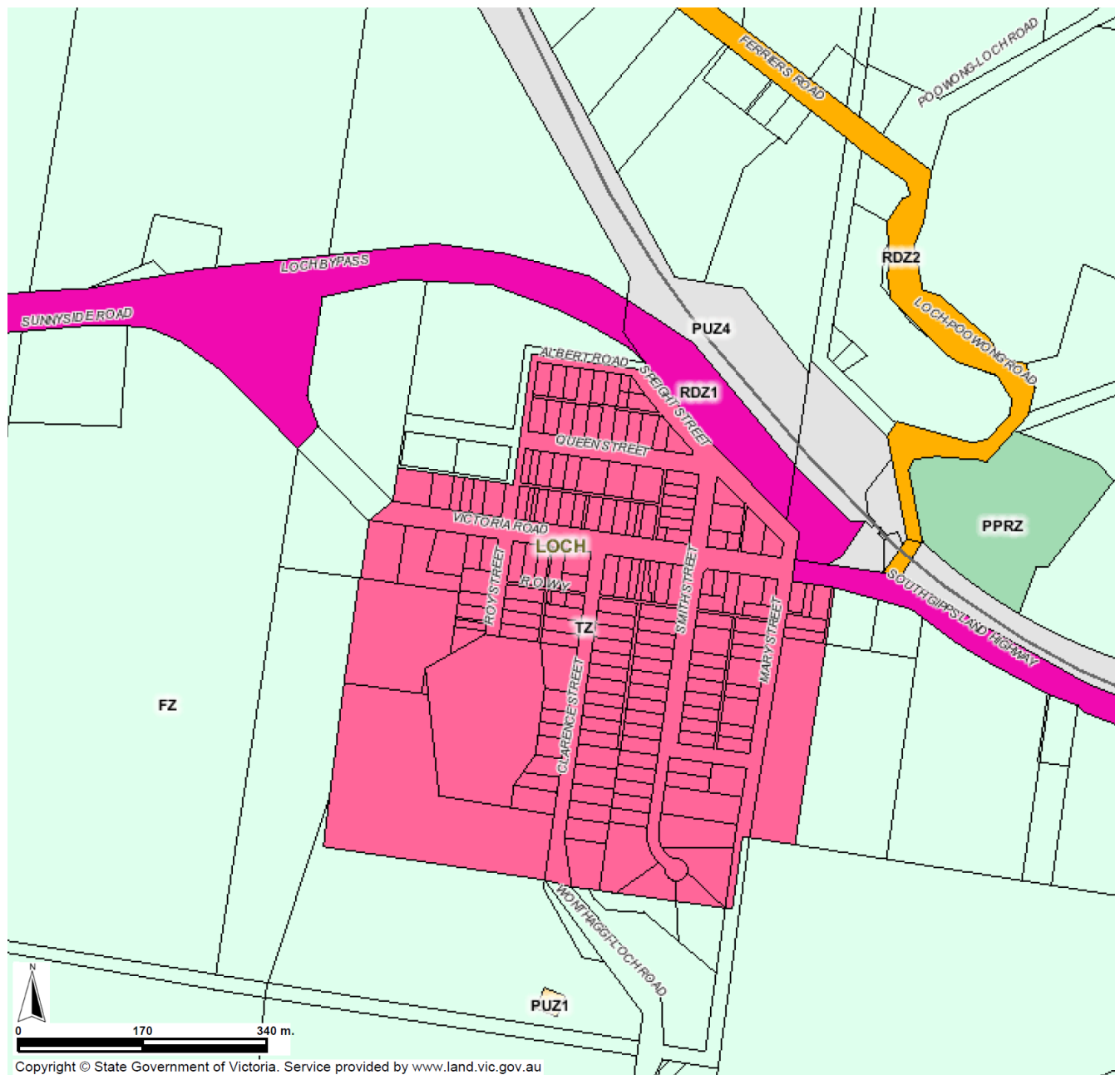
2.1 Current Town Structure

Loch is located on the South Gippsland Highway on the western slopes of the Strzelecki Ranges. The township developed from 1876 as a rural and highway service centre. The town is set in a valley through which runs the South Gippsland Rail-line as well as the Highway. The rail line and Loch Station were closed in 1993 but still run some weekend tourist services.

The South Gippsland Highway used to run through the main street of Loch, which developed a highway service role. The township has now been bypassed by the Highway but the town centre still caters for visitors, providing antique shops, cafes and a hotel in a historic commercial services strip.

The following zoning plan illustrates the pattern of development to date.

Figure 1: Loch – land-use zoning



Legend

WARRNAMBOOL Major Town Major Road, Road BOURKE STREET Road name Railway, Tramway Property/Parcel, Selected Address, Lot, Crown allotment 25 2 1C River, Stream, Coastline Waterbody Locality Locality name Local Government Area Local Government Name Urban Growth Bdy (UGB) Area outside the UGB Investigation Area Land added to UGB since 2005	ZONES B1Z - Business 1 B2Z - Business 2 B3Z - Business 3 B4Z - Business 4 B5Z - Business 5 CA - Commonwealth Land (not in scheme) CCZ - Capital City CDZ - Comprehensive Development DZ - Dockland ERZ - Environmental Rural FZ - Farming GWAZ - Green Wedge A GWZ - Green Wedge IN1Z - Industrial 1 IN2Z - Industrial 2 (cont)	IN3Z - Industrial 3 LDRZ - Low Density Residential MUZ - Mixed Use PCRZ - Public Conservation & Resource PDZ - Priority Development PPRZ - Public Park & Recreation PUZ1 - Public Use - Service & Utility PUZ2 - Public Use - Education PUZ3 - Public Use - Health Community PUZ4 - Public Use - Transport PUZ5 - Public Use - Cemetery / Crematorium PUZ6 - Public Use - Local Government PUZ7 - Public Use - Other Public Use R1Z - Residential 1 R2Z - Residential 2 R3Z - Residential 3 (cont)	RAZ - Rural Activity RCZ - Rural Conservation RDZ1 - Road - Category 1 RDZ2 - Road - Category 2 RLZ - Rural Living RUZ - Rural SUZ - Special Use TZ - Township UFZ - Urban Floodway UGZ - Urban Growth
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Source: Land Channel, State Government of Victoria

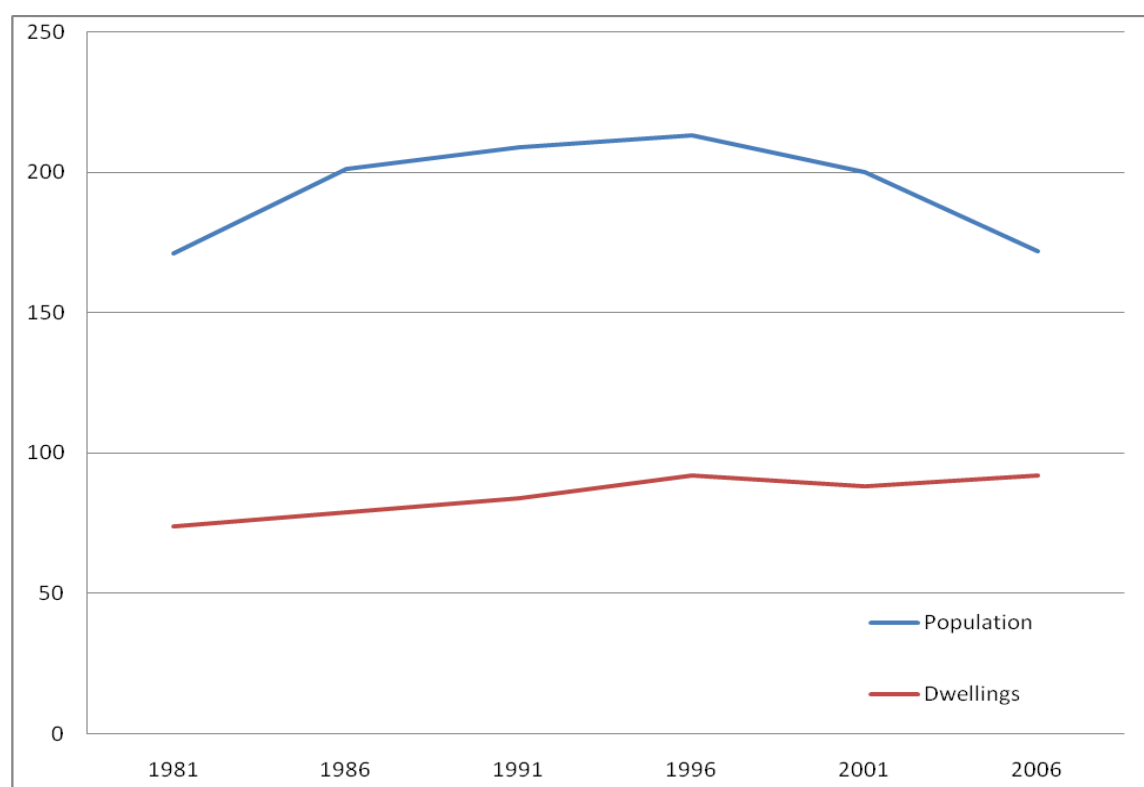
The entire town is in the Township Zone (TZ) with most lots around 1,000 sq m. There are some unsubdivided parcels and an area of rural residential sized allotments that have yet to be developed. The town has not developed beyond the boundaries of the township zone. The forthcoming reticulated sewerage system will remove the need for on-site retention and treatment of waste water which has been a restriction on development. However, other restrictions such as surrounding steep slopes will remain.

2.2 Recent Population and Housing Growth

In 2006, according to the last Census of Population and Housing, the immediate township of Loch had a population of 172. Making the usual allowance for under-counting by the Census¹, the estimated resident population of Loch in 2006 is 179. Between 2001 and 2006, the resident population of this area declined at an average of 3.0% per year. Development activity has been low over the 1981 to 2006 period but has increased in the last four years.

The chart below shows the growth in population and housing in the Loch township over the period 1981 to 2006.

Figure 2: Change in population and housing, Loch township, 1981 to 2006



Source: DSE, Towns in Time, 2008

This chart and associated calculations provide the following key points:

- The population in Loch in 2006 is about the same as it was in 1981, although there has been a population increase and then decline over the intervening 25 year period.

¹ Typically, in calculations by the Australian Bureau of Statistics, the estimated resident population of an area is 4% higher than the Census count in order to take account of under-enumeration.

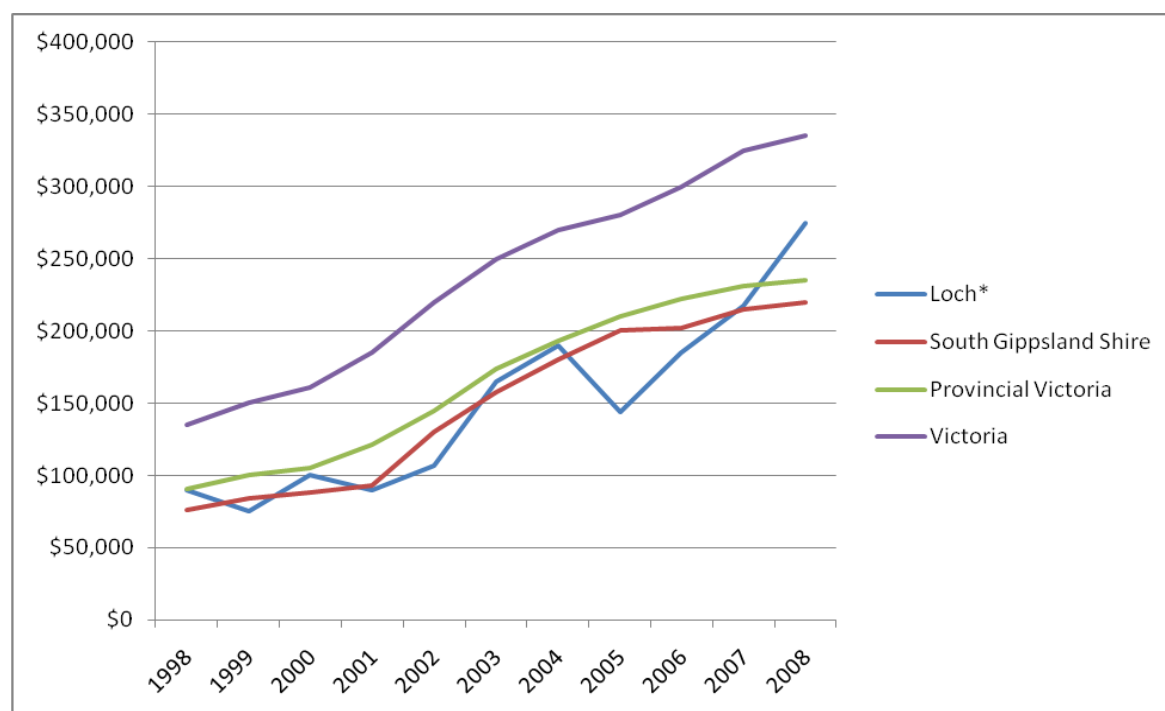
- Population declined at an average of 3.0% per year over the 2001 to 2006 period.
- The number of dwellings in the township has increased from 74 in 1981 to 91 in 2006, an average of 0.7 new dwelling per year or 3.6 dwellings over a five-year period. Since mid-2006, another 11 dwellings have been constructed, which is an average of 3 new dwellings per year.
- Approximately 18% of dwellings (16 dwellings in 2006) are unoccupied, indicating that there is a weekender or holiday home component in the township. The rate of dwelling vacancy decreased from 1981 to 1986 (from 17% in 1981 to 6% in 1986), which coincided with a population increase. Since 1986 the vacancy rate has increased - to 17% by 2001, and reaching 18% by 2006.
- Average household size was 2.3 in 2006, and has reduced gradually over time from around 2.8 in 1981.

Since mid-2006 14 additional houses have been constructed in the Loch district, most of which are likely to have been developed in the township, for example around Queen Street and Albert Road. This suggests that there has been a resurgence of population growth in the township over the past four years. Some of the development activity may be due to part-time home-owners, including people who are semi-retired. Nevertheless, it is likely that the additional population in new houses will have more than matched any continuing decline in the existing population. For the purposes of this report, **the population of Loch in 2010 is estimated at 186, which represents a growth of 1.0% per year on the estimated resident population in 2006.**

2.3 House Prices

Local and regional trends in median house prices are shown in the following chart.

Figure 3: Trends in median house prices, Loch, South Gippsland Shire, Provincial Victoria and Victoria, 1998 to 2008



Source: Department of Sustainability and Environment, 2009

Note: * The number of sales in Loch has been low and median sale prices should be treated with caution.

Whilst care should be taken in interpreting figures for Loch because of the relatively low number of sales, there does appear to be a recent spike in local house prices. This may indicate a strong demand in Loch in recent years (and this is borne out by the building approvals data from Council).

2.4 External Linkages

In 2006, there were approximately 415 people in the labour force in the Loch district². Labour force participation was 69%, and unemployment in 2006 was 3.6%. More recent unemployment data from the Department of Employment and Work Place Relations indicate that unemployment has since declined and is approximately 2.9%.

The labour force increased by approximately 70 people at an average growth rate of 4% per year between 2001 and 2006. This is indicative of an increasing labour force participation rate given that the population in the wider area grew at less than 1% per year over the same period.

Information about the place of work is available for 368 employed residents in Loch (custom data sourced from ABS Census 2001 and 2006). This information is shown in the following table.

² The Loch state suburb with a population of 752 in 2006 covers a larger area than the Loch township

Table 1: Location of work, Loch work force, 2001 and 2006

Distance from Loch	SLA or LGA	2001		2006	
		Jobs per location	%	Jobs per location	%
0 to 30km	South Gippsland- West	162		201	
	Subtotal	162	54%	201	55%
31 to 50km	South Gippsland – Ctral ¹	28		4	
	Leongatha (in Sth Gippsland – Ctral) ¹	-		30	
	Casey – South	0		5	
	Casey – Berwick	3		0	
	Latrobe	3		7	
	Bass Coast	13		11	
	Cardinia	7		21	
	Baw Baw	10		10	
	Subtotal	64	21%	88	24%
51 to 70km	Casey – Cranbourne	3		9	
	Frankston	0		5	
	Mornington Peninsula	0		7	
	Dandenong	12		14	
	Subtotal	15	5%	35	10%
71+ km	Boroondara	3		0	
	Moreland	0		4	
	Glen Eira	0		3	
	Melbourne	6		3	
	Kingston	5		6	
	Knox	0		4	
	Manningham	3		0	
	Monash	3		7	
	Port Philip	6		4	
	Towong	3		0	
	Subtotal	29	10%	31	8%
	Vic undefined	18		0	
	No fixed Address	11		13	
	Subtotal	29	10%	13	4%
	Total	299	100%	368	100%

Source: ABS Census custom data

Note: 1 – In 2006 data for Leongatha – State Suburb is available, in 2001 it is included in South Gippsland - Ctral

The table shows that in 2006:

- the majority (55%) of the Loch labour-force work in the local South Gippsland – West SLA
- 64% work in South Gippsland Shire
- 26% work in the neighbouring municipalities of Casey, Cardinia, Baw Baw, Bass Coast and Latrobe
- 25% work in Melbourne

The trend from 2001 to 2006 shows that a marginally higher share of workers work locally (within 30kms) and in the 30 to 50kms band (24% in 2006 compared to 21% in 2001). There has been a significant increase in the number of people who work in the 50 to 70km band in Cranbourne, Dandenong, Frankston and the Mornington Peninsula. This shows that Loch is now a feasible location from which to commute to the employment centres in south-east metropolitan Melbourne, and this is likely to be a driver for population growth in Loch.

Movement for work, if not local, is generally north and north-west to the southern suburbs of Melbourne, or north to neighbouring municipalities in the Princes Highway corridor.

3 Structure Planning

3.1 Key Issues

A new Structure Plan for Loch is now being contemplated by Council. Key considerations in the development of the structure plan include:

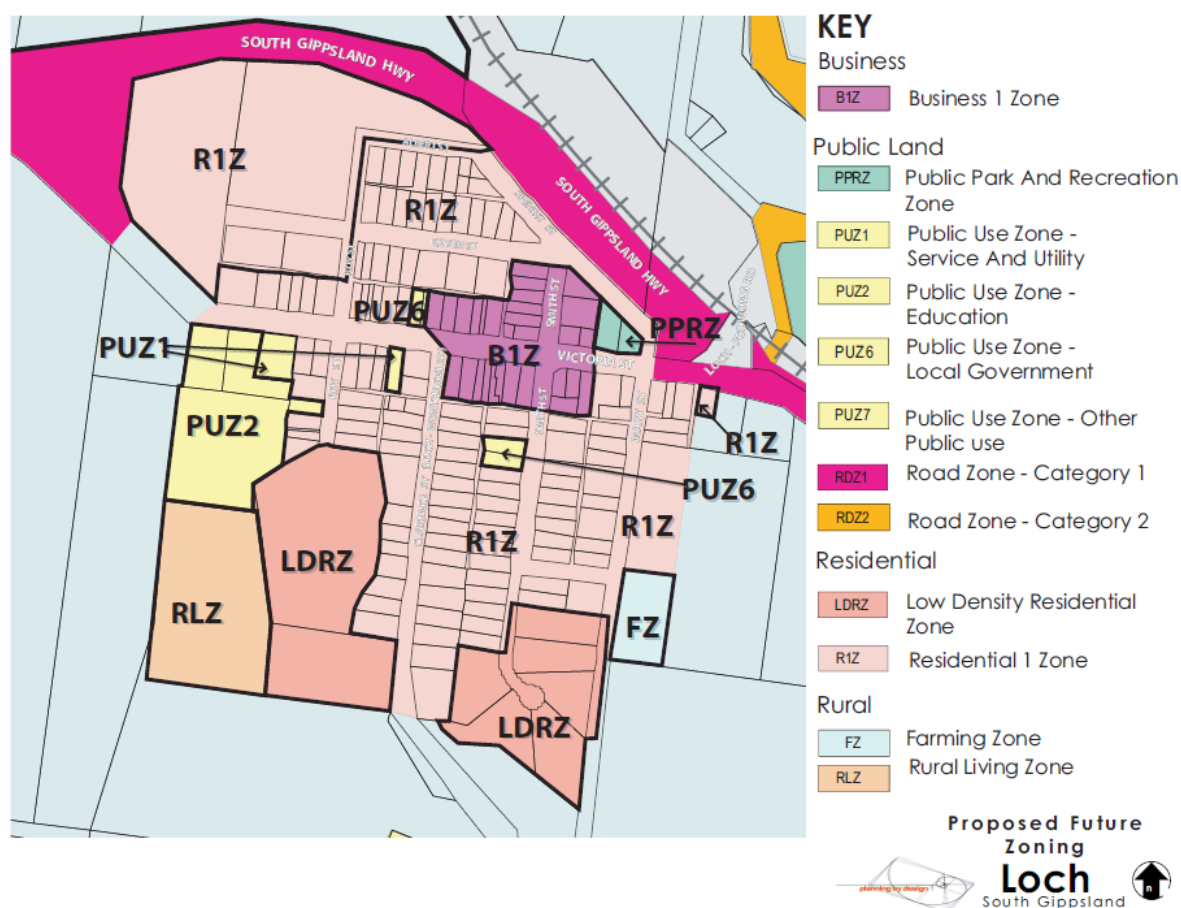
1. **The township is to be sewerred.** South Gippsland Water expects to complete the Poowong, Loch and Nyora Sewerage Scheme by 2013 at a cost of \$16 million (South Gippsland Water, 2009). This will allow a more urban style development with smaller lot sizes. More urban-scale development will enable more people to live in the township at higher densities. This may change the existing socio-economic patterns in the township.
2. **Much of the land around Loch is steeply sloped or is marshy** and this provides significant constraints to future development. Nevertheless, there are some areas where development may be possible given appropriate zoning.
3. **The rate of recent residential development has been slow.** Existing lots of 0.4 ha, large enough for easy on-site waste treatment, have not been developed and sold.
4. **The historic small town centre and its surrounding urban development provide an attractive asset that should be preserved.** Extensive development around Loch could reduce the attractiveness of the township for visitors and residents alike.
5. **Melbourne's south east continues to grow.** The growth of south east Melbourne creates demand for all types of lifestyles, including those offered by small towns such as Loch.
6. **More extensive urban development will require infrastructure services to be provided.** Sewerage is not the only additional infrastructure required for urban development. Extensions to reticulated water, storm water, roads, electricity and telecommunications services may also be required. Fairly apportioning the cost of these services will be an issue.
7. **The Evolving Policy Framework.** The Department of Planning and Community Development (DPCD) is currently preparing 'Assessment Tools' to assist councils plan for growth in the peri-urban area (the hinterland surrounding the metropolitan boundary). While South Gippsland Shire is not strictly within the defined peri-urban area, many of the peri-urban development issues are likely to be applicable to Loch. Council should seek to inform itself of the ongoing development of this work (and other regional planning initiatives) to assist informing the development of the structure plan.

3.2 Option Being Considered

The following diagram illustrates a draft zoning proposal currently being considered by Council. *(It should be stressed that this illustration is preliminary and for discussion purposes only; no decision*

has yet been made to rezone land in Loch.) The principal changes are the replacement of the Township Zone with functional Zones (Residential, Low Density Residential, Rural Living, Business 1, Public Purposes etc). An additional area of land is proposed to be zoned Residential 1 to extend the north-west corner of the township to the Freeway. Areas on the southern side of the township are located on steep land and have been considered suitable for rural residential zoning.

Figure 4: Proposed zoning plan for Loch (preliminary illustration for discussion purposes)



Source: South Gippsland Shire Council, unpublished 2010

The following table provides a broad calculation of the potential housing lots available in the town if the proposed zoning changes come into effect.

Table 2: Broad estimate of existing and potential housing lots capable of being developed in Loch

Parcel location	Total area	Developable land	Potential lots
	Ha	ha	no.
Additional R1 Zone	7	5.3	53
Proposed LDR Zone	7	6.3	13
Proposed RL Zone	3	2.7	2
Total	17	14.3	68
Existing vacant lots in R1 Zone			32
Total potential lots			100

Source: Tim Nott, Matters More

Notes: Calculations assume that only 75% of additional R1 land is developable for housing, with the remainder providing open space, roads, or being otherwise constrained (eg by marshy ground); 90% of rural residential land is assumed to be developable.

The table assumes that urban densities of 12 lots per ha can be achieved in the R1 zoned land; 2 lots per ha in the LDR Zoned land; and just less than 0.9 lots per ha in the RL Zoned land.

The existing vacant lots in the proposed R1 Zone include lots which are currently subject to amalgamation (tenement ownerships - ownerships comprised of multiple individual lots) because of the lack of sewerage. It is assumed that these will be able to be developed at normal urban densities following rezoning. This includes land which is currently not sub-divided on the east side of Mary Street.

The following table provides an indication of the potential population capacity of Loch given the proposed zoning illustrated above.

Table 3: Potential population capacity of Loch

	Residential 1	Low density development	Rural living development	Total
Existing vacant lots	32			32
Potential addition lots	53	13	2	68
Total additional lots	85	13	2	100
Occupied dwellings at full development	70	13	2	85
Assumed persons per dwelling	2.1	2.7	2.7	2.3
Population capacity of new and vacant lots	146	34	7	187
Population of existing township	186			186
Total population capacity of town	332	34	7	373

Source: Tim Nott, Matters More

Notes: Occupied dwellings are currently 82% of the total. This proportion is assumed to persist in the R1 zoned dwellings (allowing for continued development of weekenders). As a result, there are assumed to be 70 occupied dwellings on the 85 lots at full development. The dwellings on rural residential land are all assumed to be occupied given that these are most likely to be family homes with a higher commitment to their upkeep.

Household occupancy rates (persons per dwelling) in dwellings on R1 zoned land are assumed to decline to 2.1 at full development. The dwellings on rural residential land are likely to be mainly family homes with a higher occupancy rate (2.7 persons per household is assumed here).

The proposed zoning changes provide the potential for the population of Loch to double in size. However, Loch would remain small and it is doubtful whether these changes would significantly alter the character of the township.

(The figures presented in Table 3 are based on the residential areas identified in Figure 4. As noted above, the areas identified in Figure 4 are indicative and may be subject to change as the Loch Structure Plan progresses. Should changes occur, the underlying assumptions used in the preparation of Table 3 may be used to extrapolate an amended figure for 'Total population capacity of town'.)

4 Forecasting Urban Development

4.1 Development Scenarios

The previous section has examined the scale of potential development in Loch and surrounds. This section provides evidence about the potential future rate of development. The rate of development is important since it is this that will determine if and when various infrastructure and community services will be required.

The rate of development cannot be known with any certainty since there are a multitude of variables, many of which are not within the control of local land-owners or Council. In order to assist the planning process, it is common practice in this situation to create a set of scenarios based on different policy directions or influences.

In this case, the scenarios are taken to 2030, 20 years from now.

There are three main scenarios:

4.1.1 Stable Population – Weekender Increase

Between 2001 and 2006, Loch's population declined by 3.0% per year. Forecasting this trend into the future is not realistic as Loch is an attractive township with attributes, facilities and services that will ensure that the township continues to exist into the future. These attributes include its scenic location, historic buildings, shops and cafés, primary school and pub and its location within a one hour drive of Melbourne on a major highway. The attractions of Loch have resulted in some population growth since 2006; new dwellings have been built and the population has increased to approximately 186 people. On this basis, a likely development scenario for Loch is that it continues to have a stable population of approximately 180 to 190 residents, albeit with a slightly declining average household size, while the number of weekenders rises so that 'vacant' dwellings comprise 24% of the housing stock (a continuation of the trend in vacancy rates seen from 1996 to 2006):

- The population of Loch in 2030: 186
- Average household size in 2030: 2.1 persons per household
- Number of occupied houses by 2030: 89, an increase of 5 occupied dwellings over a 20 year period
- Total number of dwellings by 2030: 117, an increase of 15 dwellings over a 20-year period (assuming 24% unoccupied dwellings)

4.1.2 Growth Forecasts of State Government – Low Growth

Victorian State Government (DPCD) release population forecasts on a periodic basis for areas as small as Statistical Local Areas (SLAs) and these can be used to provide a forecast for smaller areas. The latest forecasts are Victoria in Future 2008 and go out to 2026 for SLAs.

The SLA containing Loch – South Gippsland West SLA – grew from 7,770 to 8,051 between 2001 and 2006 or by 281 persons or 0.7% and is estimated to grow to 9,816 by 2026, which is a forecast annual average growth rate of 1.0%.

This scenario assumes that Loch will grow at the forecast rate of SLA, ie 1.0% pa, which is at the same level experienced in Loch over the 2006 to 2010 period, and a reversal in comparison with the population decline over the 2001 to 2006 period.

It is assumed that by 2030 the average household size will decline to 2.1 from the current size of 2.3.

- The population of Loch in 2030: 227 – an increase of 41 residents
- Average household size in 2030: 2.1
- Number of occupied houses by 2030: 108, an increase of 24 occupied dwellings.
- Total number of dwellings by 2030: 132, a total increase of 30 dwellings over the 20 year period (assuming a vacancy rate of 18%).

4.1.3 Rapid Growth

Recent growth in Loch may continue for the foreseeable future. The areas identified in section 3.2 may fill to capacity over the 20 years to 2030. This would arise from a combination of commuters and their families; older people seeking a well-connected village lifestyle; weekenders and so on.

Under this scenario all existing vacant and potential land is taken up by 2030. Average household size is assumed to be 2.3 by 2030 (2.1 in urban density dwellings and 2.7 in rural residential dwellings). Weekenders or holiday homes are assumed to comprise 18% of all urban density dwellings but rural residential dwellings are assumed to be fully occupied.

- Total estimated population by 2030: 370 (growth of 184 people over the period from 2010)
- Population growth rate: 3.5% each year
- Total dwellings number of dwellings by 2030: 205 which is an increase of 102 dwellings over a 20 year period
- Occupied dwellings by 2030: 168 houses, a growth of 85 over the period from 2010

This strong growth development scenario represents the upper bounds of foreseeable growth in Loch. It is likely that for this scenario to be achieved there would be interest from developers in developing the proposed residential land near the town centre, including, for example, as housing on small lots marketed as affordable retirement living.

The Loch Urban Design Framework 2005 (UDF 2005) projected a target population of 600 persons based on the R1 Zone development of four growth areas adjoining the township (Loch UDF page 14). This is a significantly higher figure than presented by this assessment. Closer examination of the growth areas identified in the UDF 2005 indicate that three of the candidate areas have significant development limitations (topography, ownership and established development) that undermine the likelihood of the UDF candidate areas supporting such ambition population growth. For these reasons the population projections of the UDF 2005 should be viewed with caution.

4.2 Growth History of Similar Towns

Recent growth in Loch may **not** be a good guide to future growth patterns since key factors are changing. In particular, the provision of sewerage and therefore the ability to subdivide land into standard urban allotments is a new feature of the town. Some understanding of how these changes may affect the growth rate of the town may be found by examining the experience of other towns in proximity to Melbourne.

Loch's location approximately 90km South East of the Melbourne CBD puts it within the range of commuting to Melbourne and in the outer band of towns that are experiencing growth due to the influence of metropolitan Melbourne.

Population growth is not uniform across these bands, and each town experiences a different scenario. Some towns become the focus of a large-scale residential development and experience substantial growth off a very small base, becoming completely different types of settlement. Other towns experience more steady growth that is a continuation of the existing trend of settlement and maintain their township identity as they grow. Some towns become dormitory suburbs of Melbourne, while others develop to provide a good range of services to their residents and thereby sustain a level of community adhesion. Table 4 below provide a list of small towns within a 20 – 50km range of the perimeter of metropolitan Melbourne. Towns with a population of 200 to 5,000 have been included as towns within this range and are the most relevant points of comparison for Loch's future development scenario. Note that the population estimates may in some cases underestimate the town's size if the town has spread over a larger geographic area and these new boundaries not recognised in the data.

The towns are located within four general development corridors. These are

- The western/south-western corridor towards Geelong and Ballarat. Towns located in this corridor are not unilaterally Melbourne focused as Geelong and Ballarat provide competition to Melbourne as employment centres and therefore the experience in this corridor is less relevant to Loch. Towns in this corridor have good rail access via the Geelong and Ballarat lines;
- The northern/north-western corridor which includes towns along the Calder and Hume Freeways. Towns in this corridor have good rail access via the Bendigo and Albury rail lines;
- The eastern corridor which extends into the Yarra Valley and north east into Murrindindi Shire. Towns in this corridor have limited rail access with the closest trains departing from Lilydale;
- The south-eastern corridor which extends along the Princes and South Gippsland Highways. Towns in this corridor along the Princes Highway have good rail access via the Traralgon Line, whereas there is no rail access along the South Gippsland Highway.

Towns in the following table are sorted according to distance from Melbourne, based on an assumption that there is a relationship between population growth and distance: the further towns are from Melbourne (as the growth driver) the lower their growth rate will be. Analysis of the three broad corridors shows that there is a (negative) correlation between distance from Melbourne and population growth in 2001-2006 in the northern and eastern corridors. However this relationship is not valid for the south eastern corridor where substantial population growth in Dalyston, Nilma and Darnum skews the result.

Table 4: Selected small towns, enumerated population 1981 to 2006

	Distance from Melbourne	1981	1986	1991	1996	2001	2006	aagr 2001-2006
Western Corridor								
Ballan	80km W	689	857	1,190	1,451	1,766	1,770	0.1%
North and North Western Corridor								
Bulla	23km NW	-	258	294	345	373	397	1.3%
Beveridge	37km N	-	-	-	-	-	342	n.a.
Wallan	43km N	1,198	1,802	2,381	3,262	4,075	5,322	5.5%
Riddells Creek	45km NW	1,076	1,375	1,592	1,795	2,337	2,548	1.7%
Romsey	53km N	945	1,409	2,209	2,555	3,021	3,457	2.7%
Macedon	54km NW	1,137	1,236	1,354	1,385	1,419	1,377	-0.6%
Mount Macedon	54km NW	805	980	1,017	1,066	1,202	1,066	-2.4%
Kilmore	54km N	1,862	2,213	2,865	23,088	3,866	4,703	4.0%
Woodend	62km NW	1,808	2,244	2,766	2,994	3,038	3,087	0.3%
Lancefield	62km N	633	837	1,080	1,146	1,160	1,160	0%
Broadford	65km N	1,640	1,983	2,339	2,508	2,794	2,999	1.4%
Tylden	72km NW	213	230	250	244	291	254	-2.7%
Pyalong	76km N	-	-	-	-	238	259	1.7%
Tallarook	78km N	213	230	250	244	291	254	-2.7%
Malmsbury	93kmNW	445	458	518	514	494	616	4.5%
Eastern and North Eastern Corridor								
Yarra Glen	39km NE	1,016	1,181	1,196	1,244	1,385	1,870	6.2%
Yarra Junction	56km E	1,543	1,812	1,962	2,083	2,210	2,297	0.8%
Don Valley	55km E	-	-	-	-	273	270	-0.2%
Warburton	63km E	1,743	1,956	2,110	1,992	1,997	1,894	-1.1%
Powelltown	67km E	190	193	198	176	205	201	-0.4%
Warburton East	68km E	391	541	632	740	708	708	0.0%
Buxton	78km NE	-	-	-	-	206	213	0.7%
South Eastern Corridor								
Cannons Creek	53km SE	-	-	-	-	481	495	0.6%
Warneet	54km SE	-	-	-	-	455	492	1.6%
Maryknoll	60km SE	-	-	-	-	516	460	-2.3%
Nar Nar Goon	60km SE	346	522	625	596	607	607	0.0%
Koo Wee Rup	62km SE	1,047	1,081	1,106	1,118	1,305	1,403	1.5%
Tynong	64km SE	238	262	298	261	335	320	-0.9%
Garfield	69km SE	517	577	674	658	703	867	4.3%
Lang Lang	72km SE	582	569	696	825	921	894	-0.6%
Corinella	77km SE	173	235	340	391	478	495	0.7%

	Distance from Melbourne	1981	1986	1991	1996	2001	2006	aagr 2001-2006
Coronet Bay	80km SE	193	342	504	520	622	630	0.2%
Grantville	82km SE	195	323	383	389	401	458	2.7%
Nilma	96km SE	-	-	-	-	-	206	n.a.
Dalyston	97km SE	-	-	-	-	171	275	10.0%
Darnum	100km SE	180	255	325	293	316	362	2.8%
Yarragon	103km SE	587	670	725	695	721	721	0.0%
Trafalgar	114km SE	2,109	2,149	2,146	2,239	2,279	2,251	-0.2%

Source: Towns in Time, DSE, 2008

Notes: AAGR – average annual growth rate

Individual growth rates should be treated with caution since the statistical boundaries of the towns do not capture the extent of urban development in all cases.

The advent of reticulated sewerage was also analysed to identify whether this affected township growth and if so, by how much. Four towns were identified that had been sewered in the last decade; Dalyston (2000), Lancefield (2003), Macedon and Mount Macedon (both in 2006). Westernport Water completed the sewerage of Dalyston in 2000, but this did not immediately lead to any growth as Dalyston was not a suburb of choice. Growth has increased since 2005, as land availability in nearby Wonthaggi has become in short supply and Dalyston is now emerging as a first home buyer's area for current or new residents to the Wonthaggi area. The development of the desalination plant near Wonthaggi is also spurring growth in the region, as is the coastal location.

Located north of Melbourne, Lancefield is an inland historic town, having been settled already in the 1830s with an agricultural base. Its population grew steadily in the 1980s and early 1990s but has stabilised since. Sewering by Western Water in 2003 has not lead to any discernible growth, however the current structure plan recognises that infill development and smaller lot development can now occur and land towards the south west and north is earmarked for residential expansion and land to the east for low density residential development. Macedon and Mount Macedon are also located north of Melbourne with good commuter access via train (Bendigo line) and the Calder Freeway. The provision of sewerage was completed in March 2006, but this has not lead to planning scheme amendments to rezone land.

Included in the table are also the so-called railway towns in West Gippsland - Nar Nar Goon, Tynong and Garfield - which are located on the Traralgon railway line and the Princes Highway. Tynong is the smallest of the three at a population of 320, and, like Loch, has experienced a decline in population from 2001 to 2006. Garfield is the largest of the towns and the furthest distance from Melbourne, nevertheless Garfield had an average annual population growth rate of 4.3% over 2001-06 indicating that proximity to Melbourne alone is not sufficient to drive growth.

Yarragon (SE corridor) and Woodend (NW corridor) are towns that are similar to Loch in that they have a tourist focus and are located on main transport routes some distance from Melbourne. Yarragon (SE corridor) has a population of approximately 720 people has not experienced any population growth from 2001 to 2006. Woodend with a population of approximately 3,100 is significantly larger than Loch and is located on a commuter railway line to Melbourne. Nevertheless, the population of Woodend only increased at a rate of 0.3% pa from 2001 to 2006, indicating that a tourism role at this distance from Melbourne is not a driver for growth.

Another driver of growth is interest from large-scale developers. Towns that grew (or will grow) rapidly because they have become the focus of large scale residential development include Beveridge, Wallan, and Kilmore. In all three towns there are new subdivisions with standard residential allotments and house and land packages available³. Wallan and Kilmore have experienced population growth of 5.5%pa and 4.0%pa respectively over 2001-06, with distance from Melbourne in this case being an indicator for growth. However, both Wallan and Kilmore enjoy a location on a commuter train line, a factor which is quite significant in determining growth in the outer band of towns, and an advantage that Loch does not have. Furthermore and more importantly, there is not sufficient developable land around Loch to attract large scale developer interest.

In the following table the towns are grouped according to growth in 2001-2006: negative growth, low growth, medium growth and strong growth, and factors that are likely to contribute to growth or decline are noted. These bands are used to identify the towns that share conditions with Loch and possibly develop a growth scenario based on experiences elsewhere.

Table 5: Growth hierarchy of towns around Melbourne

	Town	Distance from Melbourne	Population 2006	aagr 2001-2006	Development factors
Negative Population Growth	Tylden	72km NW	254	-2.7%	Land for development not available
	Tallarook	78km N	254	-2.7%	Land for development not available
	Mount Macedon	54km NW	1,066	-2.4%	Not planning for growth
	Maryknoll	60km SE	460	-2.3%	
	Warburton	63km E	1,894	-1.1%	Closure of large employer
	Tynong	64km SE	320	-0.9%	Land for development not available
	Macedon	54km NW	1,377	-0.6%	Not planning for growth
	Lang Lang	72km SE	894	-0.6%	Planning constraints
	Powelltown	67km E	201	-0.4%	Land for development not available
	Don Valley	55km E	270	-0.2%	Land for development not available
Growth of more than 0% but less than 2%pa	Yarragon	103km SE	721	0.0%	Tourist role, main highway stop (Princes H'wy)
	Lancefield	62km N	1,160	0.0%	Better serviced towns closer to City (no train)
	Nar Nar Goon	60km SE	607	0.0%	Outcompeted by Garfield, Pakenham
	Warburton East	68km E	708	0.0%	Better serviced towns closer to City (no train)
	Ballan	80km W	1,770	0.1%	Growth in rural surrounds
	Coronet Bay	80km SE	630	0.2%	Coastal attraction, many holiday homes
	Woodend	62km NW	3,087	0.3%	Main highway, railway, tourist role
less than 2%pa	Cannons Creek	53km SE	495	0.6%	
	Buxton	78km NE	213	0.7%	Rural setting, low service level
	Corinella	77km SE	495	0.7%	Coastal attraction, many holiday homes

³ Kilmore – house and land packages starting at \$230,000, residential allotments at \$70,000. Wallan – house and land packages starting at \$280,000, residential allotments at \$116,000. Beveridge – house and land packages starting at \$320,000.

	Town	Distance from Melbourne	Population 2006	aagr 2001-2006	Development factors
	Yarra Junction	56km E	2,297	0.8%	Little land available
	Bulla	23km NW	397	1.3%	Not planning for strong growth, limited land released
	Broadford	65km N	2,999	1.4%	Future growth destination (after Kilmore)
	Koo Wee Rup	62km SE	1,403	1.5%	Well serviced town close to growth area
	Warneet	54km SE	492	1.6%	
	Pyalong	76km N	259	1.7%	
	Riddells Creek	45km NW	2,548	1.7%	Current growth destination, on train line
Growth of more than 2% but less than 4%pa	Grantville	82km SE	458	2.7%	Current growth destination, coastal access
	Romsey	53km N	3,457	2.7%	Current growth destination, village w services
	Darnum	100km SE	362	2.8%	Suburb town to Warragul where aagr is 1.8%pa
Growth of 4% pa or more	Kilmore	54km N	4,703	4.0%	Strong growth, on train line, developer focus
	Garfield	69km SE	867	4.3%	Strong growth, on train line, services
	Malmsbury	93kmNW	616	4.5%	Data questionable, changed count method
	Wallan	43km N	5,322	5.5%	Strong growth, on train line, developer focus
	Yarra Glen	39km NE	1,870	6.2%	New land release after years of pent up demand
	Dalyston	97km SE	275	10.0%	Strong growth, supply shortage in area
no data	Beveridge	37km N	342	n.a.	Developer focus
no data	Nilma	96km SE	206	n.a.	Suburb town to Warragul where aagr 1.8%pa

Source: Refer table 4, and consultants estimates

In terms of population growth (decline from 2001 to 2006), size, and attractions Loch does not fit neatly into any of the categories, and it is not readily possible to establish a likely growth scenario for Loch based on the experiences in other towns.

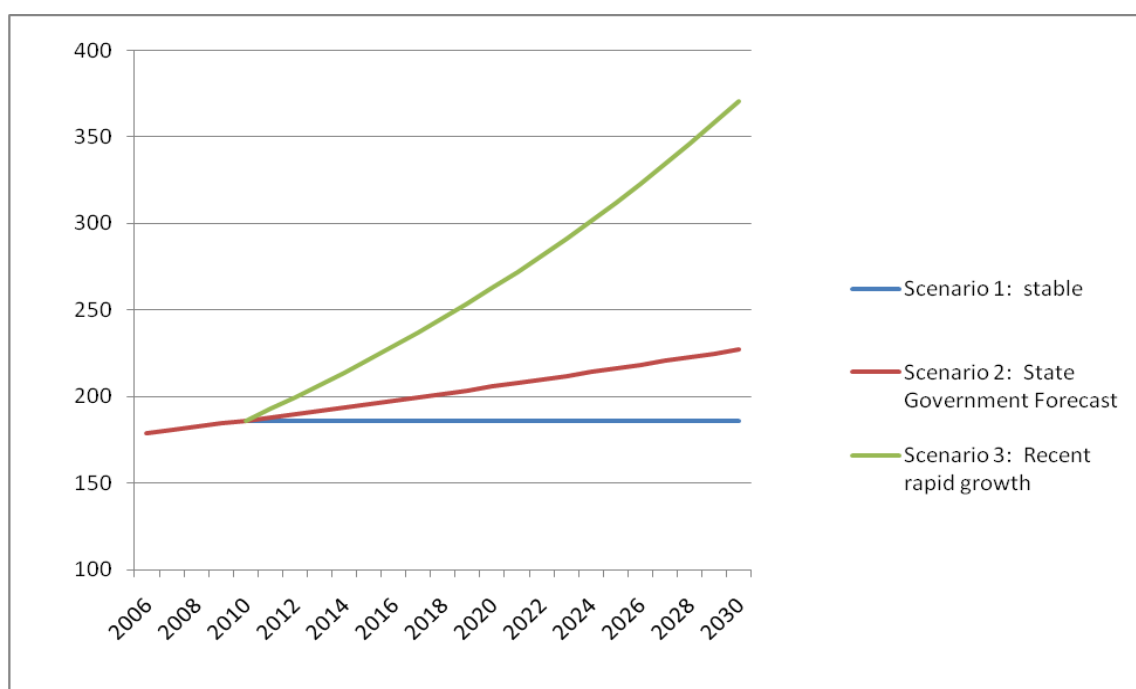
4.3 Comparison of Growth Scenarios

The following figure and table provide a comparison of the population and housing outcomes of the various scenarios.

Table 6: Comparison of growth scenarios for Loch

Scenario	Stable	State Government forecast	Recent rapid growth
Description	Long term stabilisation of population between 180 and 190 people, but with increase in proportion of weekenders	State government forecast growth rate of 1% in South Gippsland – West also envisaged for Loch	Continued growth of housing in new areas and vacant blocks
Population			
Forecast annual growth rate	0.0%	1.0%	3.5%
ERP in 2010	190	190	190
ERP in 2030	190	230	370
Average household size in 2030	2.1	2.1	2.2
Net change 2010 to 2030	0	40	180
Dwellings			
Total dwellings, 2030	117	132	202
Net change in total dwellings, 2010 to 2030	12	24	100
% occupied dwellings	76%	82%	82%
Occupied dwellings, 2030	89	108	168
Net change in occupied dwellings, 2010 to 2030	0	22	82

Source: Tim Nott, Matters More

Figure 5: Three population growth scenarios for Loch, 2010 to 2030

Source: Tim Nott, Matters More

Comparison of these scenarios with the assessment of land capability in the previous section shows that the population growth envisaged in each scenario by 2030 could be accommodated within existing land areas proposed for rezoning.

4.4 Implications for the Structure Plan

The various growth scenarios have several implications for the Loch structure plan:

- ***Implications for zoning***

Only the most rapid population growth over the period to 2030 will **require** new land to be zoned. Population growth of 1% per year could be accommodated on existing residential land within the township. However, the rezoning proposed by Council to create more lots would introduce more choice in the type and location of allotments, giving prospective residents more choice and potentially catering to a wider market.

- ***Impacts on urban character***

The proposal to develop rural residential allotments will change the form of the township to the south but this is not likely to have a substantial impact on the way people experience the town. Under the rapid growth scenario, the population will double over 20 years. This will create more traffic in the town centre and will generate demand for local streets to be improved and possibly for road safety measures to protect school children and older people. However, Loch will remain a small urban settlement (under 400 people). The urban character for visitors will be defined by the main street and its small town commercial buildings many of which are historic. This character can be protected through appropriate design controls.

The following sections examine the impact of the scenarios on the activity centre and industrial land.

5 Retail and Commercial Growth Forecast

5.1 Current Activity

Loch has an extensive range of community buildings for a small town as well as a commercial sector that is largely focused on visitors. The non-residential buildings are largely (although not exclusively) located on the main street. The following table provides a summary of the non-residential activities in the township.

Table 7: Estimate of non residential activity in Loch

Activity	Premises	Floorspace
	no.	sq m
General store	1	80
Galleries, gift shops, antiques and second hand goods	10	800
Cafes and restaurants	3	270
Total retail activity	14	1,150
Hotel	1	500
Post office	1	50
Garage	1	80
Primary school	1	600
Emergency services	2	350
Churches	3	450
Other community activities	4	500
Total non residential activity	27	3,680

Source: Tim Nott, Matters More

The township contains approximately 1,150 sq m of retail space; this constitutes 31% of the total non-residential space in the town. (This has grown somewhat since an earlier survey in 2007 which showed that there was 870 sq m of retail space in the township. This growth has occurred through change of use of buildings from non-retail purposes rather than construction of new buildings.)

Of the retail space, only the general store and possibly one of the cafes would be supported by the expenditure of residents. The remaining space is reliant on visitors and travellers on the South Gippsland Highway. These people are attracted by the historic buildings of the main street, the small town charm of the township and the opportunity for browsing and dining.

The following table provides an understanding of the hierarchy of activity centres operating in South Gippsland Shire. This hierarchy uses retail development as the key indicator; however, it is important to recognise that activity centres also often contain a wide range of other functions such as tourism, financial, professional and community services.

Table 8: Activity centre hierarchy in the South Gippsland region

Centre type	Retail role	Relevant example	Typical catchment size	Typical retail floorspace	Typical share of trade area retail spending
			<i>persons</i>	<i>sq m</i>	<i>%</i>
Capital City	High order comparison goods shopping with entertainment	Melbourne CBD	1 million +	300,000	5 to 10%
Regional Centre	Mainly comparison goods shopping	Dandenong CBD, Fountain Gate	100,000+	100,000	30%-40%
Sub-regional centre	Routine comparison goods and groceries	Mid-valley Wonthaggi	50,000+	15,000 to 50,000	15% to 25%
Community Centre	Groceries and some comparison goods	Leongatha	20,000+	10,000 to 25,000	30% to 40%
Neighbourhood Centre	Extensive food and groceries and local services	Korumburra	8,000+	4,000 to 10,000	25% to 35%
Small Neighbourhood Centre	Food and groceries and local services	Poowong Lang Lang	1,500+	1,000 to 4,000	10% to 20%
Local Centre	Top-up groceries and local services	Loch Nyora	800+	up to 1,000	2-5%

In this hierarchy, Loch is a local centre with an extensive tourism function that takes its retail floorspace beyond the usual local centre size.

5.2 Implications of Population Growth Scenarios for the Activity Centre

Even under the most bullish growth scenario the number of local residents will not be sufficient by 2030 to warrant a step up the activity centre hierarchy for the centre in Loch. The resident demand will remain at the level of a local centre (see the table above). There may be a need for one or two more shops to provide local services such as hair-dressing or pharmacy. However, there will not be sufficient demand for a significant supermarket; residents will continue to travel to Korumburra and elsewhere for their grocery shopping.

The principal influence on the scale of the retail offering in the township will be the success of the town in attracting visitors. Tourism is the key economic activity for the township; it provides jobs and incomes for township residents and it expands the range of local services that are available (the town would not support several cafes and household goods shops on the spending of residents alone).

The long term forecast for growth in domestic tourism is for growth in visits of 1% per year (Tourism Forecasting Committee, 2009). If this holds good in Loch, and assuming the growth in demand translates to retail floorspace, then the Loch town centre could be called on to accommodate at least a further 200 sq m of retail space for tourism purposes over the period to 2030. In fact, tourism in Loch may grow at more than 1% per year particularly if the township is seen as being attractive for investment in new visitor facilities. This could include accommodation (motels, small hotels, and bed and breakfasts), regional craft and food outlets, restaurants and so on.

These facilities **may** be accommodated within the area nominated as the B1 Zone in Council's proposed changes to zoning. This could occur through changes of use in existing housing or shop-buildings. However, further land may be required. It may be prudent to extend the B1 Zone westwards to the junction of the Highway and Roy Street. This would have the benefit of also picking up some non-residential uses that presently fall outside the B1 Zone and should properly be considered part of the activity centre (including a church and Masonic Hall).

5.3 Implications for the Structure Plan

Under any reasonable scenario for population growth, the town centre will remain accessible on foot for the majority of township residents. Tourism will remain the biggest influence on the size and growth of the centre. The boundaries of the B1 Zone which delineate the centre could be extended westwards to Roy Street in order to accommodate further growth in tourism.

6 Industrial Growth Forecast

Loch presently has no industrial activity apart from a garage and a shop selling old tools. The proposed land-use zoning changes do not suggest that industrially zoned land should be provided within the township.

The current and proposed future structure of the township is unlikely to accommodate industrial activity without creating amenity issues or undermining the tourism which sustains the township economy. As a result pressure for industrial development is likely to be directed to other industrial areas in nearby towns such as Korumburra, Nyora and Poowong. This report therefore makes no forecast for growth in industrial activity in Loch.

7 Summary

This report has examined the key factors affecting growth and development in Loch township and surrounds. The existing township and recent trends in its development has been described and a number of development scenarios have been prepared in order to help Council planners and decision-makers in the structure planning process for the township.

Key characteristics and outcomes of the various development scenarios are summarised below.

Table 9: Summary of development scenarios for Loch, 2010 to 2030

Scenario	Stable population and more weekenders	State Government forecast	Rapid growth
Description	Fluctuation of population around current and historic levels but increase in weekenders	State government forecast for growth in South Gippsland – West	Rapid growth based on very recent trends in housing approvals
Population			
Forecast annual growth rate	0.0%	1.0%	3.5%
ERP in 2010	190	190	190
ERP in 2030	190	230	370
Average household size in 2030	2.1	2.1	2.2
Net change 2010 to 2030	0	40	180
Dwellings			
Total dwellings, 2030	117	132	202
Net change in total dwellings, 2010 to 2030	12	24	100
% occupied dwellings	76%	82%	82%
Occupied dwellings, 2030	89	108	168
Net change in occupied dwellings, 2010 to 2030	0	22	82
Activity centre			
Largest centre likely to be required by 2030	Local centre with substantial tourism component	Local centre with substantial tourism component	Local centre with substantial tourism component
Industrial activity			
Additional industrial land and activity	None	None	None

8 References

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