

Snowy Mountains Special Activation Precinct

Draft Structure Plan Report _ Part II _ Investigations



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The strategic policy + current planning framework for the SAP area is summarised in this section.

This section summarises technical reports by other consultants and proposed responses in the Structure Plan.

This section summarises alternative settlement patterns for growing Jindabyne over time

During Master Planning, a number of additional land development options were also examined. Not all growth areas have been selected to be included in the SAP Master Plan.

**This section
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1. Introduction

An overview of the objectives of this report

The SAP Structure Plan identifies and guides the key areas of growth and change to deliver on the vision for Jindabyne and the Snowy Mountains as Australia's Alpine Capital.

1.1 Purpose + objectives

A Structure Plan for the Snowy Mountains Special Activation Precinct (Snowy Mountains SAP) is a key input to the DPIE's Master Plan for the Precinct.

Due to the size and complexity of the SAP area, reporting has been split into three.

- _ The Structure Plan Investigations Report (this document) includes detailed summaries of the project context, technical analysis, and stakeholder engagement that informs the Structure Plans.
- _ A separate Structure Plan report comprises all spatial plans, future planning intent, and supporting illustrations for all identified growth area of the Snowy Mountains SAP.
- _ An Appendix document contains supplementary material including confidential material provided by stakeholders during the master planning process.

Other objectives of the Investigations Report

- _ Document the strategic planning context of the Snowy Mountains SAP.
- _ Summarise key drivers and influences.
- _ Review previous studies, identifying relevant strategies to further develop.
- _ Identify information gaps, issues and opportunities for the project to investigate.
- _ Undertake investigations at multiple scales: local, regional, state, national and global.
- _ Document the context and site conditions within the Snowy Mountains SAP.
- _ Graphically represent investigation findings.
- _ Summarise engagement and inputs including the project Enquiry by Design Workshops held in the region in October and November 2020.





1.2 Methods

Desktop + site review of:

- _ strategic planning documents
- _ existing planning framework
- _ previous master plans, technical studies and other investigations conducted in the Investigation Area
- _ existing site conditions
- _ Investigation Area constraints and opportunities
- _ best practice examples of international alpine tourism towns / regions
- _ key site-based design opportunities .

Engagement with:

- _ State agencies, particularly DPIE and National Parks and Wildlife, Department of Regional New South Wales, Regional Growth NSW Development Corporation
- _ Snowy Monaro Regional Council
- _ Transport for NSW
- _ other technical consultants
- _ engagement interviews with tourism and other stakeholders were also reviewed.

Collaborative workshop programme including:

- _ strategic framework online workshop programme in August 2020
- _ multi-day Enquiry by Design workshop series in Jindabyne and Thredbo in October and November 2020
- _ integration workshop and review of preliminary structure plans
- _ strategic planning and concept development and testing in Queanbeyan in December 2020
- _ online workshop, reviews and testing throughout.

1.3 Structure Plan package

This report forms part of a Structure Plan package of studies being developed in conjunction with a:

- _ Tourism Study (Stafford Strategy)
- _ Housing and Accommodation Study (Ethos Urban)
- _ Sustainability Study (DSquared)
- _ Social Infrastructure Study (Liesl Codrington)
- _ Sport Infrastructure Study (DHW Collaborations)

- _ Public Space Study (Jensen PLUS)
- _ Structure Plan (Jensen PLUS, with input from Populous, and Deicke Richards).

Other technical studies

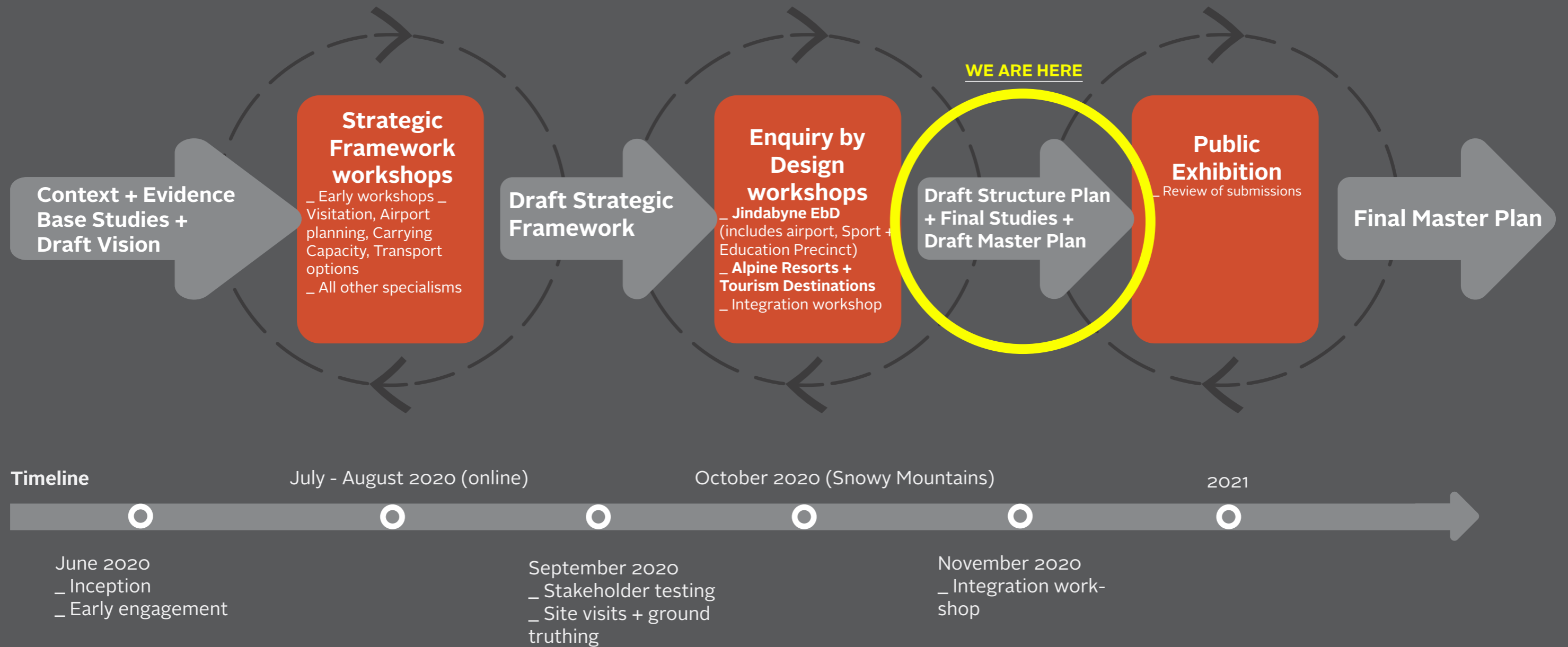
Other technical studies are being developed in parallel with this report and have been reviewed and summarised here. These include:

- _ Economics: Demographics, economic development and demand analysis (CIE).
- _ Environmental Assessment: Biodiversity, bushfire, heritage and Kosciuszko National Park Plan of Management carrying capacity review (WSP).
- _ Engineering: Transport, infrastructure, renewable energy, flooding, hydrogeology, geotechnical (WSP).
- _ Legislative Framework: Policy analysis, statutory considerations, governance (Ramboll).
- _ Air access: upgrades to support improved air access to the Snowy Mountains SAP Investigation Area (Arup).



1.4 Structure Plan timeline + methodology

The methodology adopts a collaborative approach with an emphasis on workshops including flagship Enquiry by Design workshops for key locations





On 15 November 2019, the NSW Government announced the Snowy Mountains SAP... to revitalise the Snowy Mountains into a year-round destination and Australia’s Alpine Capital, with Jindabyne at its heart. A focus on year-round adventure- and eco-tourism, improving regional transport connectivity, shifting towards a carbon neutral region ...lifestyle and wellbeing, and supporting Jindabyne’s growth as Australia’s national winter Olympics training base will be priorities...” (DPIE, 2019)

1.5 Special Activation Precincts explained

Special Activation Precincts (SAPs) are a new, place-based approach to economic development that aim to ‘activate’ strategic locations in Regional NSW to attract jobs and investment.

SAPs are unique in Regional NSW because they bring together planning and industry levers, and have the potential to harness support from all levels of government.

The creation of Special Activation Precincts is part of the NSW Government’s 20 Year Economic Vision for Regional NSW and will be delivered as part of the \$4.2 billion Snowy Hydro Legacy Fund.

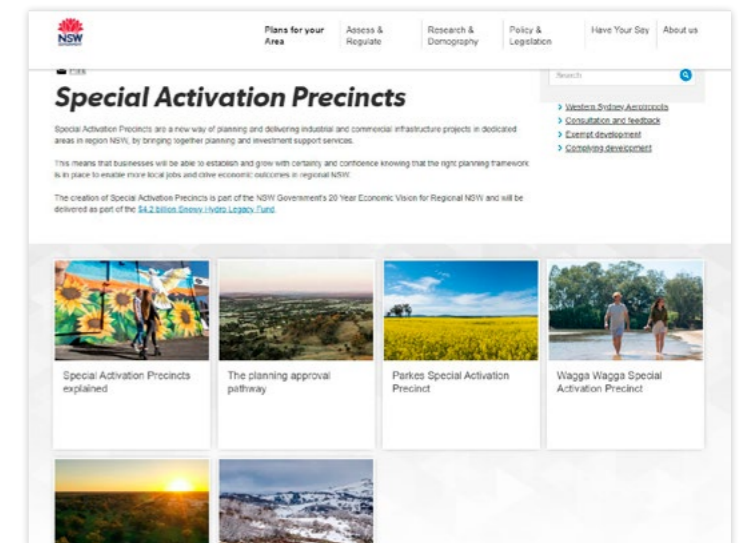
A SAP is designed to be more than a land use plan. The SAP is a mechanism designed to leverage sustained government and private sector investment and support, promote and attract business, and ultimately to cultivate a growth conducive environment.

A new Activation Precincts State Environmental Planning Policy (SEPP) sets a planning framework through which SAPs will be delivered.

SAPs typically include five core components to plan and deliver intended economic outcomes:

- _ Government-led studies
- _ Fast track planning
- _ Government-led development
- _ Infrastructure investment
- _ Business Concierge.

The Snowy Mountains SAP is one of five SAPs announced by the NSW Government. Other SAPs are at Parkes, Wagga Wagga, Moree and Williamtown. Snowy Mountains SAP is distinctive for its tourism focus, and Kosciuszko National Park setting.



To find out more about SAPs, click on the webpage link above or visit <https://www.planning.nsw.gov.au/Plans-for-your-area/Special-Activation-Precincts>



Core components of a SAP

Source: NSW DPIE request for tender

This section summarises the project vision + provides a brief history of the SAP area.

2. Why Snowy Mountains?

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2. Why Snowy Mountains?

2.1 Drivers + influences

Year-round destination

The Snowy Mountains are Australia's premier alpine and winter sports destination, with tourism the major economic driver and employer in the Investigation Area.

However the tourist economy is heavily geared towards the short winter season of 12-16 weeks, resulting in this location being **the most seasonal tourism region in Australia** (Centre for International Economics, 2020). This seasonality presents challenges to the local economy and to efficient infrastructure provision. How can these challenges be addressed to remain competitive with other Australian and international destinations?

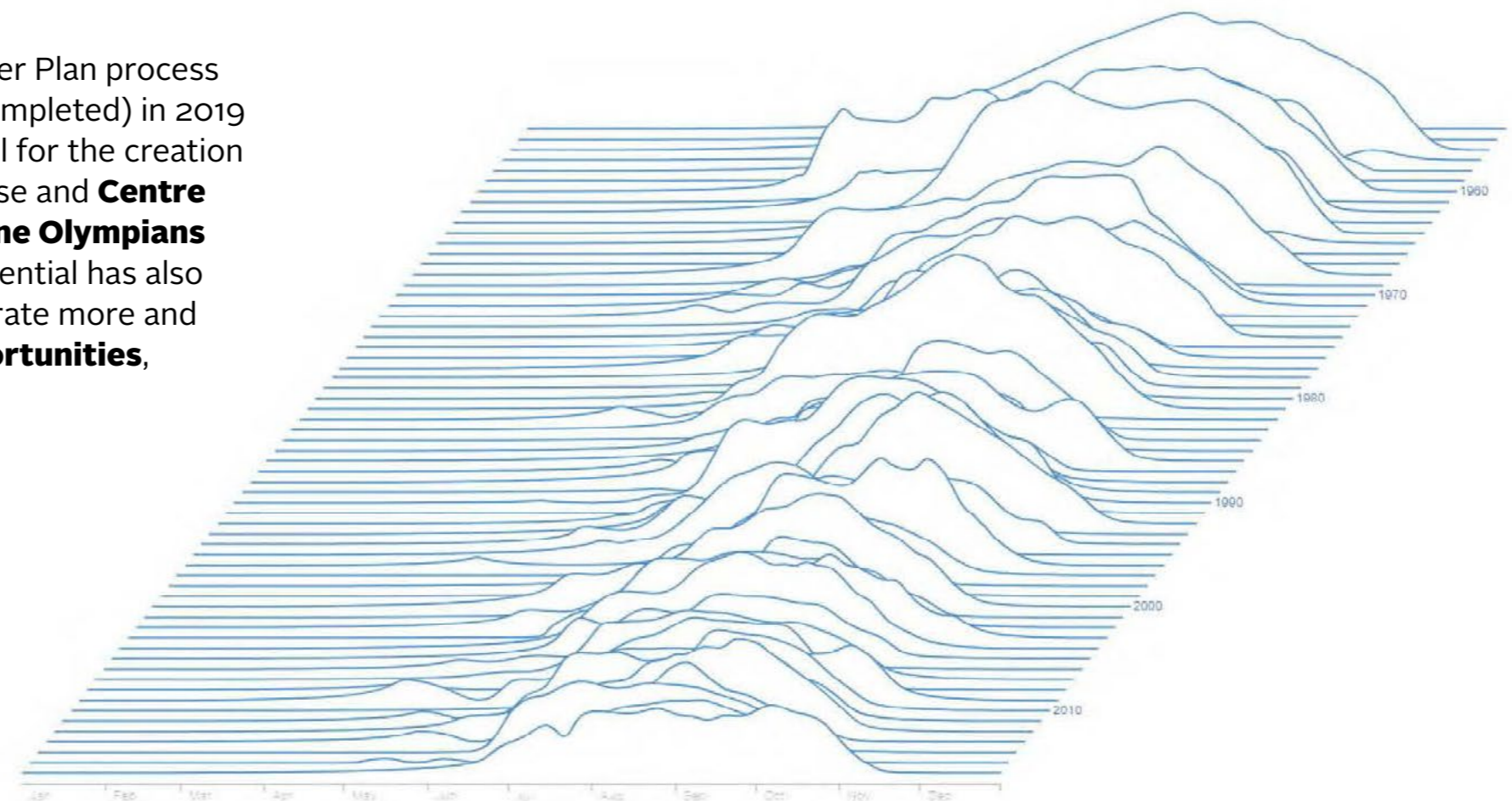
Climate change a threat to skiing

The reliance on skiing is also threatened through the effects of **climate change, which is forecast to reduce the quality and length of the snow season** in the region and potentially, in the long term, threaten its viability (Climate Change Impacts on Alpine Regions, NSW Government, 2019).

The Snowy Mountains SAP is set amongst one of Australia's most scenic and valued alpine environments. This a significant driver for the establishment of a SAP in this location so that the region's locational advantages can be capitalised on to further **diversify and expand the local economy into a year-round sporting, adventure and eco-tourism destination.**

The Go Jindabyne Master Plan process commenced (but not completed) in 2019 highlighted the potential for the creation of a national training base and **Centre for Excellence for alpine Olympians and Paralympians.** Potential has also been identified to integrate more and **better education opportunities,**

potentially in a combined campus, with courses tailored for sporting specialisms as well as those allied with tourism and hospitality.



Snowfall trends from 1954-2016 (Spencer's Creek) show reductions in falls and durations throughout the year (Source: Go Jindabyne Master Plan (incomplete) Hills Thalys, 2019)

Housing issues in a tourism hotspot

Housing costs at Jindabyne are at times double those of nearby towns, and permanent residents are increasingly said to be competing with tourism accommodation such as AirBnB for housing. Accommodating a growing and transient population and workforce also poses challenges for housing and accommodation in the Precinct.

Improving the quality of tourist accommodation - often reported as older and of poor value for money - will be important in increasing the quality of the tourist offering and essential to support the growth sought. This will need cooperation from major resorts and smaller operators. New accommodation providers might also be targeted through planning, promotion and incentives.

How and where new housing and accommodation can be provided is a major focus of the Structure Planning, as are the flow on **requirements for community infrastructure.**

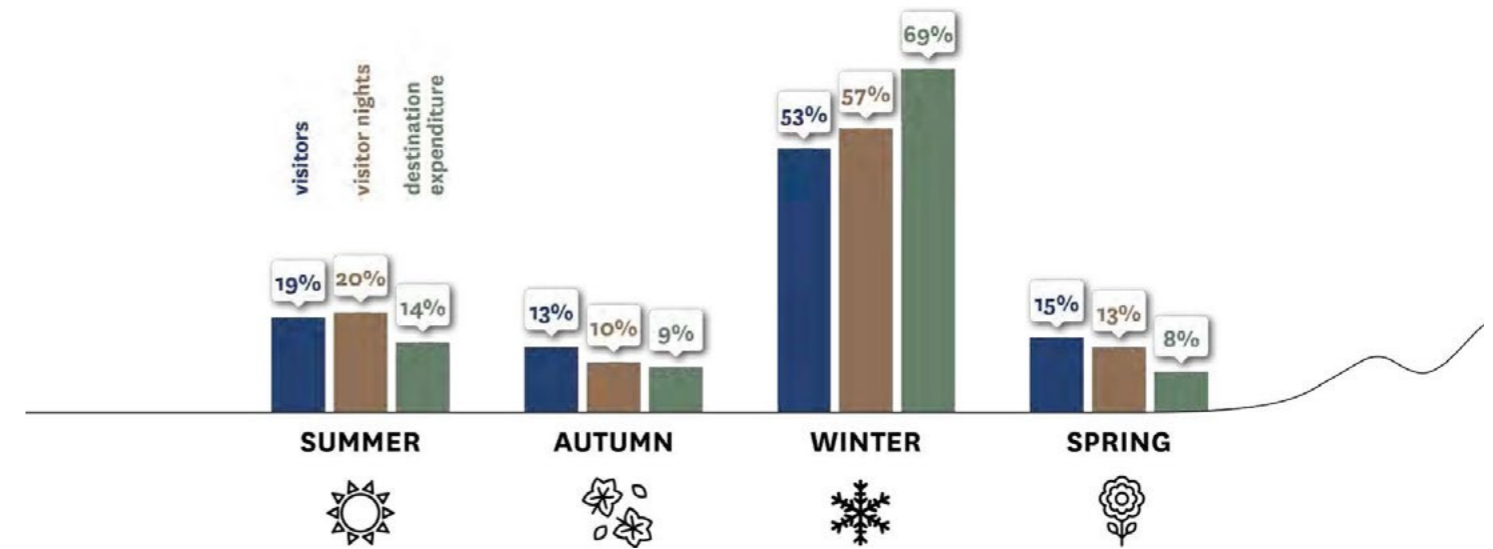
Sustainable development in a sensitive alpine region

The implications of climate change (less snow over time especially at lower altitudes) are a major driver for diversification of tourism experiences in the SAP.

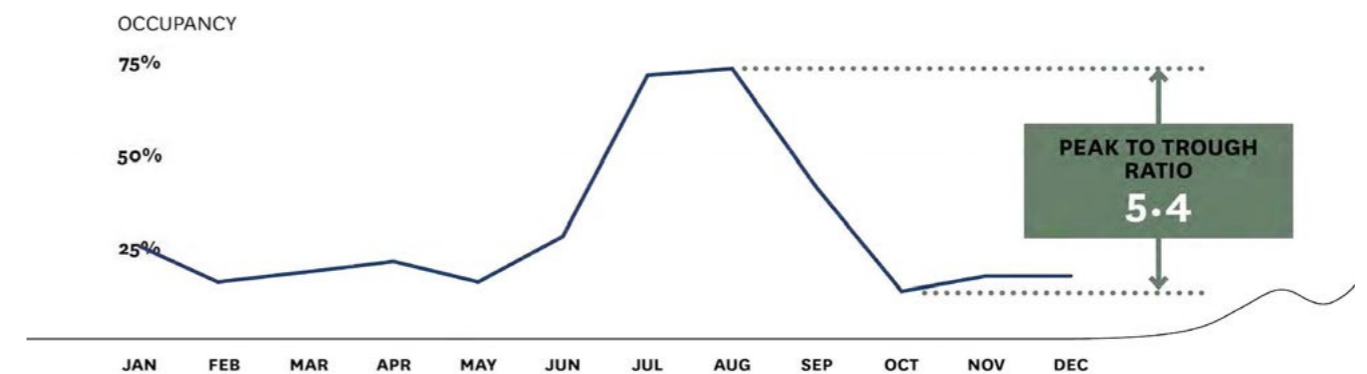
Climate change also threatens summer opportunities through heightened bushfire risk. Bushfire planning, especially given recent seasons, are a significant influence to where and how development can be realised within acceptable risks.

This is a sensitive and valued environment, with a significant proportion of the SAP located within Kosciuszko National Park. Whilst this is an asset from which to build opportunities, it is also a **challenge to ensure that future development and growth outcomes are sustainable, focus on eco-tourism, and 'tread lightly' on the environment.**

Re-examining the **carrying capacity** of Kosciuszko National Park (and the wider SAP areas) for visitation including



Average quarterly shares of overnight domestic visitors, visitor nights and destination expenditure (June 2014-2018)
Source: TRA Special Data Service, March 2019



Accommodation occupancy in Jindabyne (2013-2016). Occupancy peaks at approximately 70% in the winter and decreases to around 10-25% during the summer months. The region has an extreme peak to trough accommodation occupancy of 5.4 times due to a surge in visitors during the winter ski months.

Source: Snowy River Shire Strategic Tourism Development Plan



overnight accommodation is an important influence on potential growth.

Enhancing environmental resilience more generally with **climate-positive, carbon-negative and circular economy strategies** is a major opportunity for the SAP.

Access + connectivity

Convenient access is a key ingredient to a successful tourism region. For a location with difficult terrain and subject to adverse weather conditions, this is even more important. The SAP's tourism attractions including Kosciuszko National Park and ski resorts are heavily car dependent and **road and parking bottlenecks are widely reported as a negative visitor experience in the ski season.**

The ability (or otherwise) to improve access, through **better roads, investing in alternative transport modes**, or both, will have a big influence on the potential for growth, as well as the quality of the experience for visitors including repeat visitors.

The desire to establish a training base for elite athletes also speaks to a greater importance on ease of access, and the potential for **better air access and improved regional transport connections from around Australia to the Snowy Mountains.** This would benefit national and international athletes, as well as visitors and locals.

Quality of the experience

Improving the attractiveness of the SAP's destinations and ageing infrastructure will be an essential part of improving the visitor experience, with particular opportunities present at Jindabyne.

Success in achieving this could have a significant influence on attracting visitors, but also seasonal workers and permanent residents.

This is influenced by two things:

_the **quality of the built environment – Jindabyne suffers from poor quality public spaces** and is not inviting for pedestrians and cyclists. Well-known issues include poor connectivity to the lakefront and surrounding residential areas.

_maximising the use and benefit of public spaces – **creating world class public spaces** that are inviting and easy to access, and then programming activities and events that make use of them year round.

Need for better governance

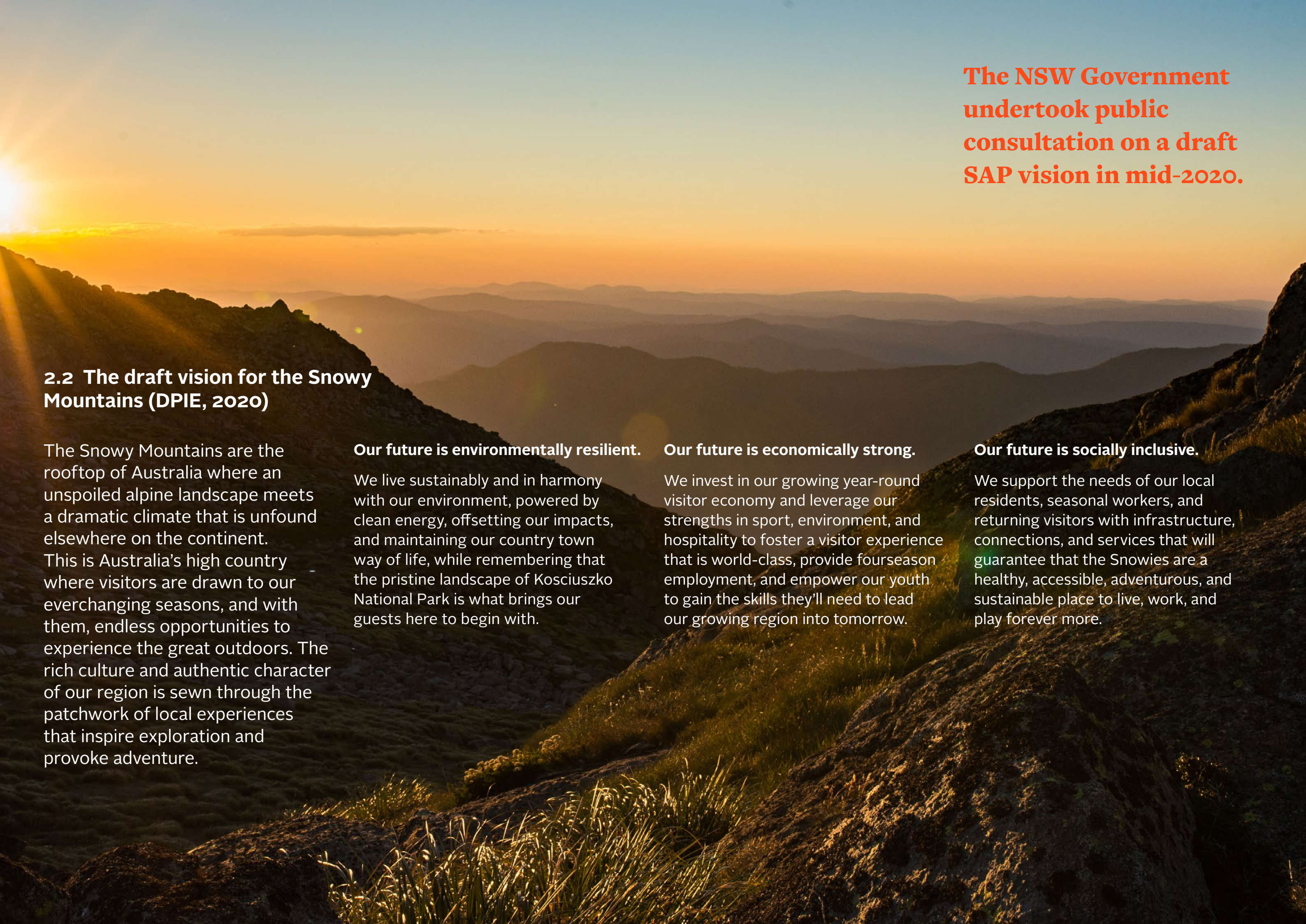
The SAP Investigation Area is subject to a relatively **complex legislative and policy framework** due to the presence of Kosciuszko National Park and the alpine resorts within the Park.

How much has this framework been a disincentive to investment? Could **more streamlined planning and governance framework** around a common strategic vision encourage higher levels of investment?

New or improved governance and implementation mechanisms provided by SAPs could benefit community confidence in ensuring development outcomes are appropriate, well designed, consistent with strategic aims, achieve environmental targets and will be monitored for performance over time.



Major roads at Jindabyne cope with neither peak winter traffic, nor quality walking and cycling needs



The NSW Government undertook public consultation on a draft SAP vision in mid-2020.

2.2 The draft vision for the Snowy Mountains (DPIE, 2020)

The Snowy Mountains are the rooftop of Australia where an unspoiled alpine landscape meets a dramatic climate that is unfound elsewhere on the continent. This is Australia's high country where visitors are drawn to our everchanging seasons, and with them, endless opportunities to experience the great outdoors. The rich culture and authentic character of our region is sewn through the patchwork of local experiences that inspire exploration and provoke adventure.

Our future is environmentally resilient.

We live sustainably and in harmony with our environment, powered by clean energy, offsetting our impacts, and maintaining our country town way of life, while remembering that the pristine landscape of Kosciuszko National Park is what brings our guests here to begin with.

Our future is economically strong.

We invest in our growing year-round visitor economy and leverage our strengths in sport, environment, and hospitality to foster a visitor experience that is world-class, provide fourseason employment, and empower our youth to gain the skills they'll need to lead our growing region into tomorrow.

Our future is socially inclusive.

We support the needs of our local residents, seasonal workers, and returning visitors with infrastructure, connections, and services that will guarantee that the Snowies are a healthy, accessible, adventurous, and sustainable place to live, work, and play forever more.

**Five aspirations
organise the vision
into key areas of focus
for the SAP.**

Our aspirations

ADVENTURE + ECOTOURISM



SPORT + EDUCATION



SUSTAINABILITY + WELLNESS



DESIGN + CULTURE



INFRASTRUCTURE + CONNECTIONS



The Snowy Mountains will offer a range of exhilarating adventure and ecotourism opportunities, to transform a successful snowsport destination into a year-round alpine mecca that will draw visitors from near and far to earn its brand as Australia's Alpine Capital.

ADVENTURE + ECOTOURISM



With a growing specialisation in alpine sport and the development of Australia's national training base for alpine athletes, the region will foster sport education pathways and offer specialised tertiary education in sports science, environmental management, and hospitality and tourism, while providing world-class facilities for high-performance athletes.

SPORT + EDUCATION



As a region, the Snowy Mountains will be a national leader in environmental resilience and sustainability, with investment in renewable energies, green infrastructure, and carbon sequestration, aspirations for a carbon-negative future, opportunities to connect with nature, and continued protection of the vulnerable alpine environment of Kosciuszko National Park.

SUSTAINABILITY + WELLNESS



The Snowy Mountains will celebrate its rich and diverse history as it redefines its future, with strengthened alpine character, heightened attention to design, enhancement of Lake Jindabyne's foreshore, improved social equity, and authentic opportunities to experience the essence of the Snowies.

DESIGN + CULTURE



With improved air access to Jindabyne from key markets, public transport between Jindabyne and Kosciuszko National Park, more transport technologies and less congestion, and a pedestrian- and cycle-friendly town centre, the potential of the Snowy Mountains will be unlocked with a quality visitor experience on offer to keep our visitors coming back.

INFRASTRUCTURE + CONNECTIONS

Five aspirations for the Snowy Mountains

(DPIE, 2020)



2.3 Snowy Mountains

Past, present + future



Hover over images
for further info



2.4 Jindabyne township historic growth

“Over the years Jindabyne has continued to thrive, and today, it stands as one of the rural towns in New South Wales that continues to grow.”

– Jindabyne Community Statement, NSW Government, 2019

Historic Jindabyne

The traditional owners of the region traversed the Jindabyne area and the Snowy Mountains valleys for over 20,000 years prior to European settlement. The Monero Ngarigo people gave Jindabyne its name '*Jinderboine-Jindaboine*' which is a local Aboriginal word meaning 'valley'. The Monero Ngarigo people shared the land in connection with the Walgalu, Ngunnawal and Bidjawal peoples.

Colonial settlement

In the early 1800s, Jindabyne was first settled as a small outpost on the eastern banks of the Snowy River by European farmers, stockmen and graziers. The settlers used paths defined by the Monero Ngarigo people as their ways of droving and bullocking.

Into the 1900s, Jindabyne grew slowly and by 1935, the township had spread to the western side of the Snowy River with the construction of a bridge.

Snowy Scheme

Between 1949 and 1974, the Snowy

Mountains Hydro-electricity Scheme was developed which brought thousands of workers from across Australia and the world, many arriving to the region under assisted migration schemes.

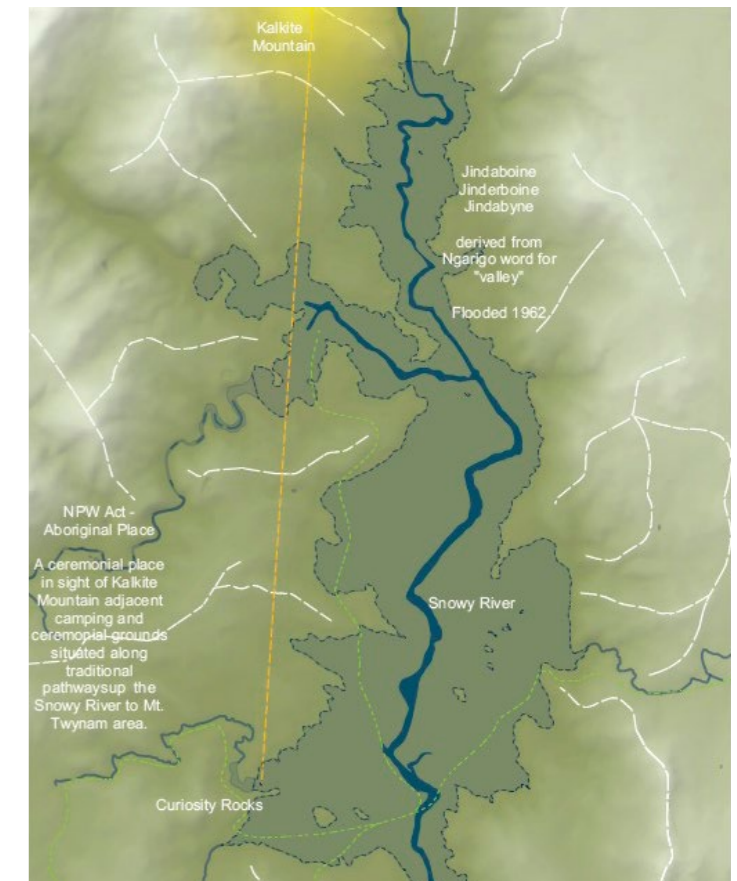
As a result of the Snowy Scheme, the township of Jindabyne was flooded in 1967 to become what is known now as Lake Jindabyne. In the 1960s, prior to the inundation, Jindabyne's population of just a few hundred relocated to higher ground to the new town of Jindabyne

New Jindabyne

Following the establishment of 'new' Jindabyne in the 1960s, the township has expanded from its centralised lakeside setting to the eastern side of the lake Jindabyne with two settlements, Tyrolean Village and East Jindabyne. Since the 1990s, Jindabyne has grown outwards towards the rural hinterlands, including the establishment of rural living settlements to the south of the township

Sources:

- *Jindabyne Community Statement, NSW Government, 2019*
- *Go Jindabyne Master Plan Background Study, Hills Thalys, 2019*



Historic Jindabyne
Source: Go Jindabyne Master Plan Background Study, Hills Thalys, 2019



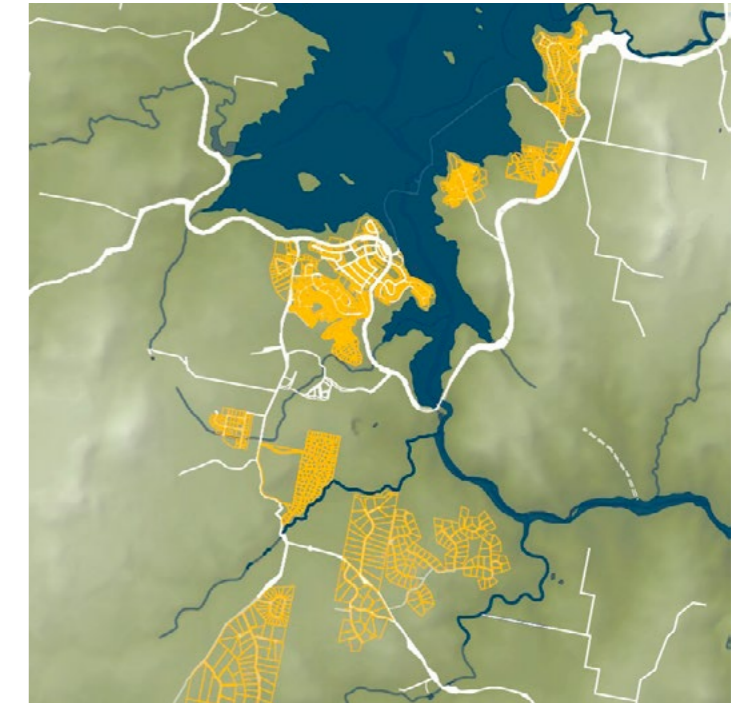
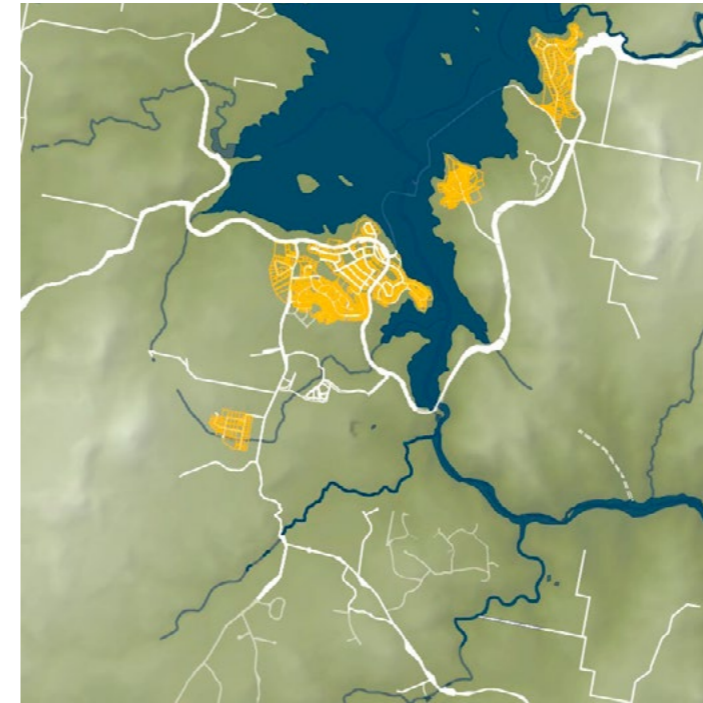
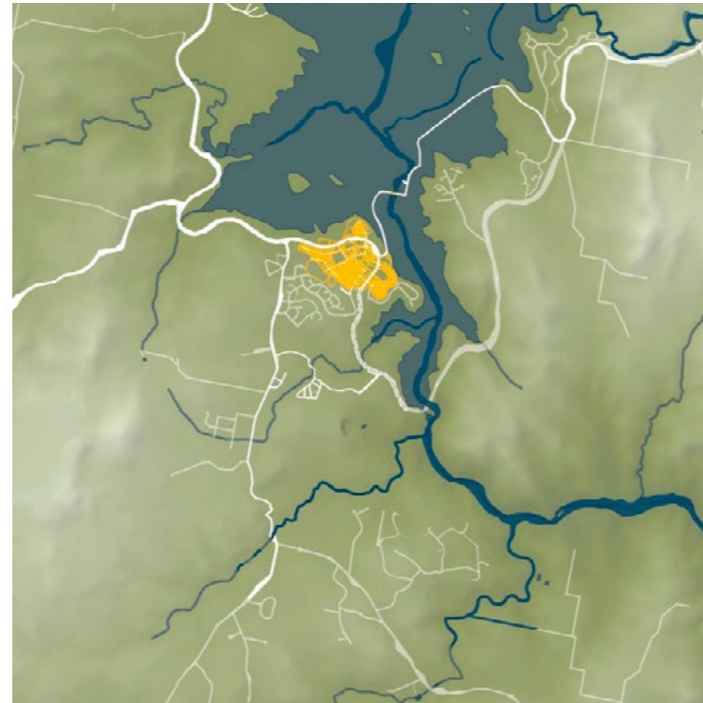
Old Jindabyne 1965
Source: Blue Mountains City Library, Local Studies Collection, 1965



Early settlement at Jindabyne
Source: Monaro pioneers, Iain MacInnis, date unknown



Jindabyne 1981
Source: National Archives of Australia, Australian Government, 1981



Old Jindabyne 1935

Source: Go Jindabyne Master Plan Background Study, Hills Thalys, 2019

New Jindabyne 1963

Source: Go Jindabyne Master Plan Background Study, Hills Thalys, 2019

New Jindabyne 1990s

Source: Go Jindabyne Master Plan Background Study, Hills Thalys, 2019

New Jindabyne 2000s

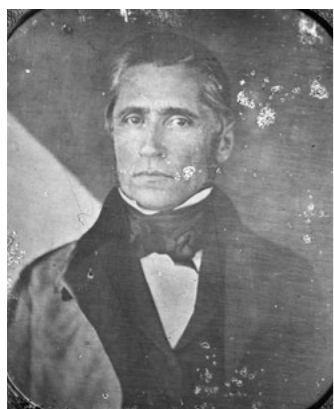
Source: Go Jindabyne Master Plan Background Study, Hills Thalys, 2019



2.5 Kosciuszko National Park + resort towns historic growth

“Mt Kosciusko is seen cresting the Australian Alps, in all the sublimity of mountain scenery... (it) is one of those few elevations... (which) present the traveller with all that can remunerate fatigue.”

– Paul Edmund de Strzelecki



Paul Edmund de Strzelecki
Source: Australian Museum, NSW Government, 2019

First exploration

The Kosciuszko National Park area was first explored by Europeans in 1835. In 1840, Paul Edmund de Strzelecki carried out a geological survey of the Alps and climbed Australia’s highest peak, naming it after a Polish national hero, Tadeusz Kosciuszko (Australian Museum, NSW Government, 2019).

Birth of skiing

Early development and interest in alpine activities in the Perisher Range surfaced between 1860 and 1900 as skiing in Australia grew in momentum around the goldfields at Kiandra (Perisher Range Resorts Master Plan, National Parks and Wildlife Service, 2001).

Early beginnings of resort towns

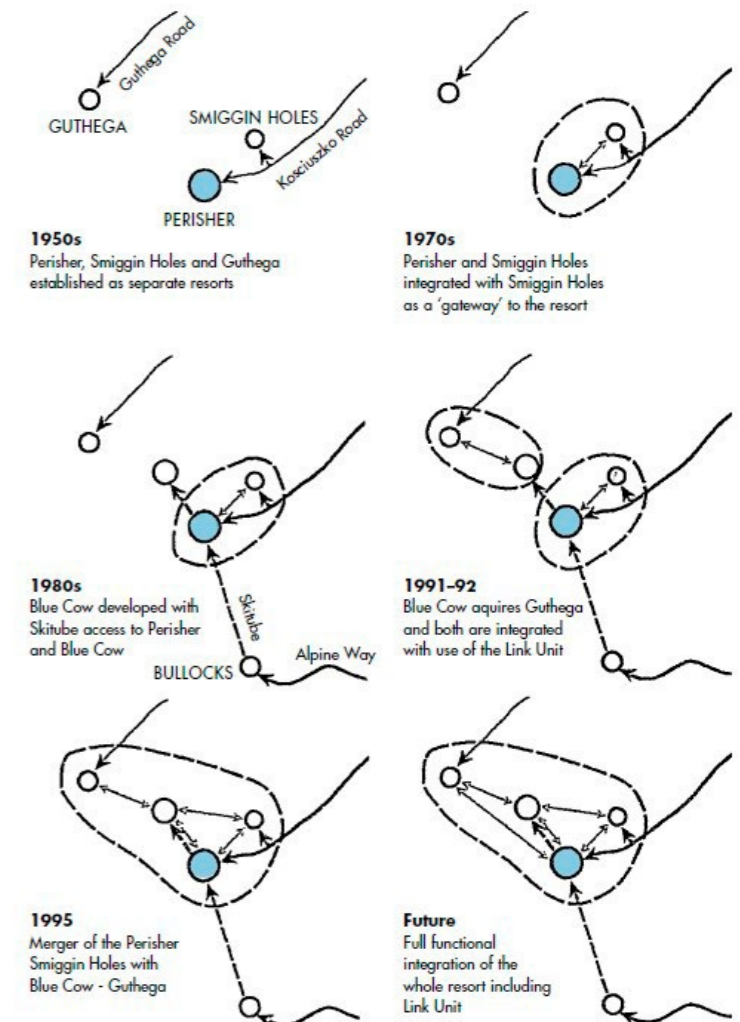
The development of the ski fields in Kosciuszko National Park was formed on the basis of the NSW State Government’s broad aims of promoting settlement, encouragement of migration and highlighting the state’s attractions in the region. Works commenced in 1909 with the Kosciuszko Hotel being the centerpiece

for many years and Australia’s first winter ski resort.

The hotel was later supplemented by the Charlotte Pass Chalet in the Perisher Valley in 1931. Both early premises burnt down but were reproduced and expanded upon by future developments. By the late 1950s, the development of the southern Kosciuszko ski-fields rapidly expanded with the opening of self-contained resort towns at Perisher Valley, Smiggin Holes, Guthega and Thredbo (Perisher Range Resorts Master Plan, National Parks and Wildlife Service, 2001).



‘Snowshoeing’ in Kiandra, about 1900
Source: National Museum of Australia, Canberra



Perisher Range historic development

Source: Perisher Range Resorts Master Plan, National Parks and Wildlife Service, 2001

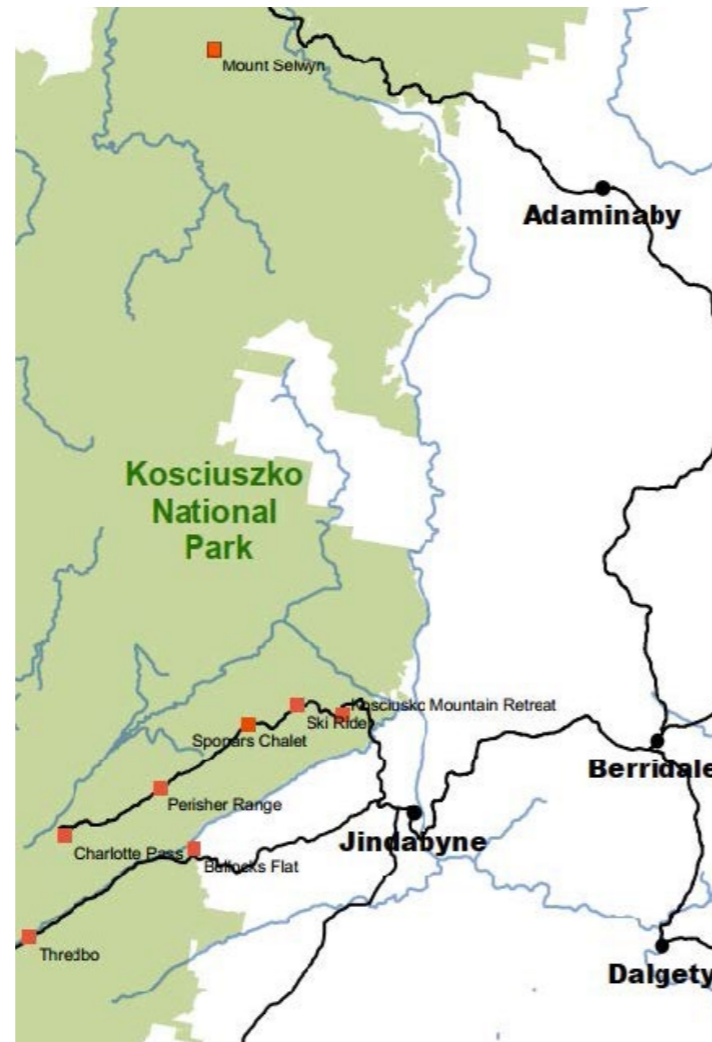
Further developments

The Island Bend township was constructed in 1952 and became the Snowy Mountains Hydro-electric Scheme's workforce centre for the Kosciuszko region. 16 years later the township was dismantled due to the completion of the Guthega Dam.

The first ski lifts were constructed at Guthega and Thredbo in the late 1950s due to the increasing popularity of the snowfields. Commercial activity in the resorts increased during the 1960s and 1970s. The construction of the Skitube in the 1980s (opened 1986) provided greater access to the ski fields. The art of man-made snow making began in 1987 in Thredbo to extend the skiing season (Perisher Range Resorts Master Plan, National Parks and Wildlife Service, 2001).

Kosciuszko National Park significance

In 1967, the National Parks and Wildlife Act 1967 was gazetted and the Kosciusko State Park became the Kosciusko National Park and managed by the NSW National Parks and Wildlife



Locations of each Alpine Resort
Source: Kosciuszko Alpine Resorts DCP, NSW Government, 2019

Service. In 1977, Kosciuszko National Park was declared a World Biosphere Reserve by UNESCO (NSW DPIE, 2018).

Recent developments

The Kosciuszko National Park Plan of Management was released in 2006 to provide a framework for tackling the management challenges of the largest national park in NSW.

In 2018, the NSW Government announced a \$27 million investment in extending walking and bike trails within the Kosciuszko National Park (NSW DPIE, 2018), reflecting an increased interest in summer adventure activities in the region and elsewhere in Australia.

While no major expansion of ski areas have occurred since the late 20th century, many older ski lifts at Guthega and Perisher Valley were updated in 2014 and 2018 respectively (Perisher, 2020). In 2020, the Thredbo double chairlift was replaced with a high-speed gondola (Thredbo, 2020).



Thredbo Village and chairlift, 1966
Source: National Archives of Australia, Australian Government, 1966



Charlotte Pass resort village showcasing the Kosciuszko Chalet
Source: Kosciuszko Alpine Resorts DCP, NSW Government, 2019



2.6 Jindabyne + the Snowy Mountains today

Today, Jindabyne and the surrounding Snowy Mountains region is a sought-after tourist destination visited by over 1.3 million visitors each year.

(Jindabyne Community Statement, NSW Government, 2019)

Jindabyne

Located in the heart of the Snowy Monaro Local Government Area, Jindabyne is an alpine country town, gateway to Kosciuszko National Park, and a service town for the nearby ski resorts. Jindabyne's association with its lake, mountains and seasons are core components of the town's identity.

Population snapshot

About 3,300 people live in Jindabyne. Jindabyne's population has been increasing steadily in recent years (3.2% population increase between 2001 and 2016), with most of the growth in age groups over 20 years. Jindabyne's ageing population trend is consistent with the ageing profile of residents within the Snowy Monaro LGA (Australian Bureau of Statistics, 2011 and 2016 Census).

Other settlements within the SAP area include small rural communities situated on the banks of Lake Jindabyne such

as East Jindabyne, Tyrolean Village and Kalkite. In addition, several alpine resorts located within the Kosciuszko National Park are included such as Thredbo, Perisher and Charlotte Pass.

The total population of the SAP area today stands at just under 6,000 residents. However, during peak snow season, the resident population is matched in multiples with an influx of seasonal workers and substantial visitor numbers (CIE, 2020).

Landscape

Jindabyne is located in the foothills of the Snowy Mountains and overlooks Lake Jindabyne. The terrain within Jindabyne itself is hilly, providing many lake and mountain views. While walking and cycling is more difficult due to slope, it also makes it rewarding with opportunities for scenic views.

The Alpine resorts within the SAP area are situated in the valleys of the Kosciuszko National Park where the surrounding landscape is characterised by peaked ranges and broad forested valleys.



Overlooking Jindabyne and the surrounding areas



Facilities

Jindabyne town centre contains most of the town's commercial and retail activity, as well as tourist accommodation and residences. Two shopping centres along Kosciuszko Road form the core business area of the town, along with restaurants, cafes, accommodation, retail and commercial businesses on Bay Street, Gippsland Street and Snowy River Avenue. The town centre overlooks the Lake Jindabyne foreshore, but is unsatisfactorily separated from it by Kosciuszko Road.

Outside of the town centre are low-scale residential areas mixed with accommodation such as lodges and resorts to cater for tourists.

Key community assets within Jindabyne include two local schools (Jindabyne Central School and Snowy Mountains Grammar School), the Jindabyne Sport and Recreation Centre, the medical centre and the Snowy Mountains Neighbourhood Centre. Many of the community facilities are known to be



Jindabyne has two schools including Snowy Mountains Grammer School

in need of upgrade or future expansion, a question being investigation by others in the Structure Plan team.

East Jindabyne and Tyrolean Village are lakeside residential areas east of the town centre, well separated by Jindabyne Dam and parts of the lake. These communities consist of residential dwellings, resorts and lodge accommodation for tourists.

Economy

As previously discussed, Jindabyne's economy is highly dependent on tourism and the natural assets of the region. Jindabyne benefits from its position as the gateway to the Snowy Mountains ski fields in the winter, and hiking and biking trails in the summer. Tourism is Jindabyne's primary industry and has been a key driver of its growth over many decades.

Due to Jindabyne's limited higher education and employment opportunities, school leavers often leave town in search of better education and employment options.



East Jindabyne welcome sign



The Leesville industrial precinct which is located south of the Jindabyne town centre is recognised as a valued contributor to Jindabyne’s economy. Leesville consists of a number of light industrial, manufacturing and commercial land uses as well as the Jindabyne airport.

Lifestyle

Jindabyne offers many residents a relaxed pace of life and a healthy and balanced lifestyle which is intrinsically linked to the surrounding landscape. The local community is strongly connected to the sport and recreation activities that are supported by the surrounding landscape. This lifestyle is an attractor for the SAP and must also be carefully protected in the context of potential growth and change.

Built environment

Jindabyne’s built environment consists mostly of low scale development which responds to the undulating landscape and reflects Jindabyne’s character as a

small country town. However, the built form of Jindabyne in recent years has sometimes produced poor architecture and urban design that undermines the town’s character and high natural landscape amenity.

Mobility

Car-dependence has evolved an issue within Jindabyne due to its remote location, distance from major urban centres and limited local public transport options. Incidents of traffic congestion and reduced road safety are known issues during the winter peak season which, although of short duration, create acute inconvenience to tourists or locals caught up in them.

Heritage and culture

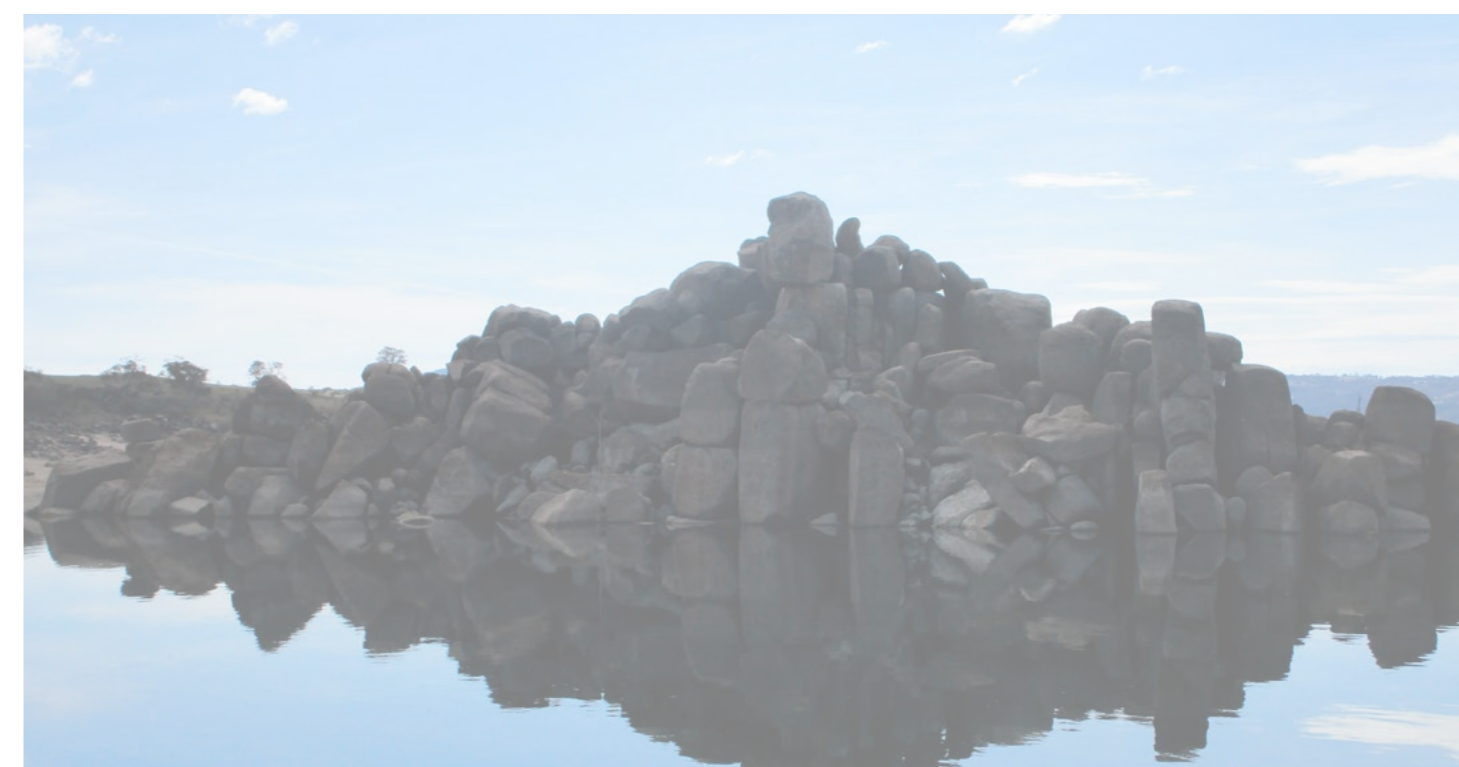
Jindabyne and the surrounding areas have a rich Aboriginal history that dates back over 20,000 years. A present-day example of this is Curiosity Rocks Aboriginal Place which signifies the long occupation and use of the area by Monero Ngarigo ancestors. Many locals

believe that Aboriginal heritage could be better recognised, protected and celebrated in the town.

There are many State Heritage buildings that are significant to the district and demonstrate the growth of the local community associated with the pioneer settlement and also the era of building the Snowy Scheme. Several churches are set in prominent positions in town

overlooking Lake Jindabyne as well as 1880s settler huts and weatherboard homesteads are scattered around the region as evidence of the first years of establishing the old and new town of Jindabyne (Heritage NSW, 2020).

The following section contains photography highlighting many of the contextual factors discussed in this section.



Curiosity Rocks



2.7 Existing conditions

All photography, DPIE 2019, unless noted

The expansive Investigation Area encompasses alpine national park, ski resorts, and of course the town of Jindabyne. With Lake Jindabyne and the Snowy Mountains at Jindabyne's door step, the town has evolved into a ski and adventure tourist destination and service centre.

Jindabyne Town Centre



Jindabyne Memorial Hall situated at the end of Bay Street



Medical centre



Multi storey commercial buildings within the town centre



Gippsland Street looking south



Bay Street



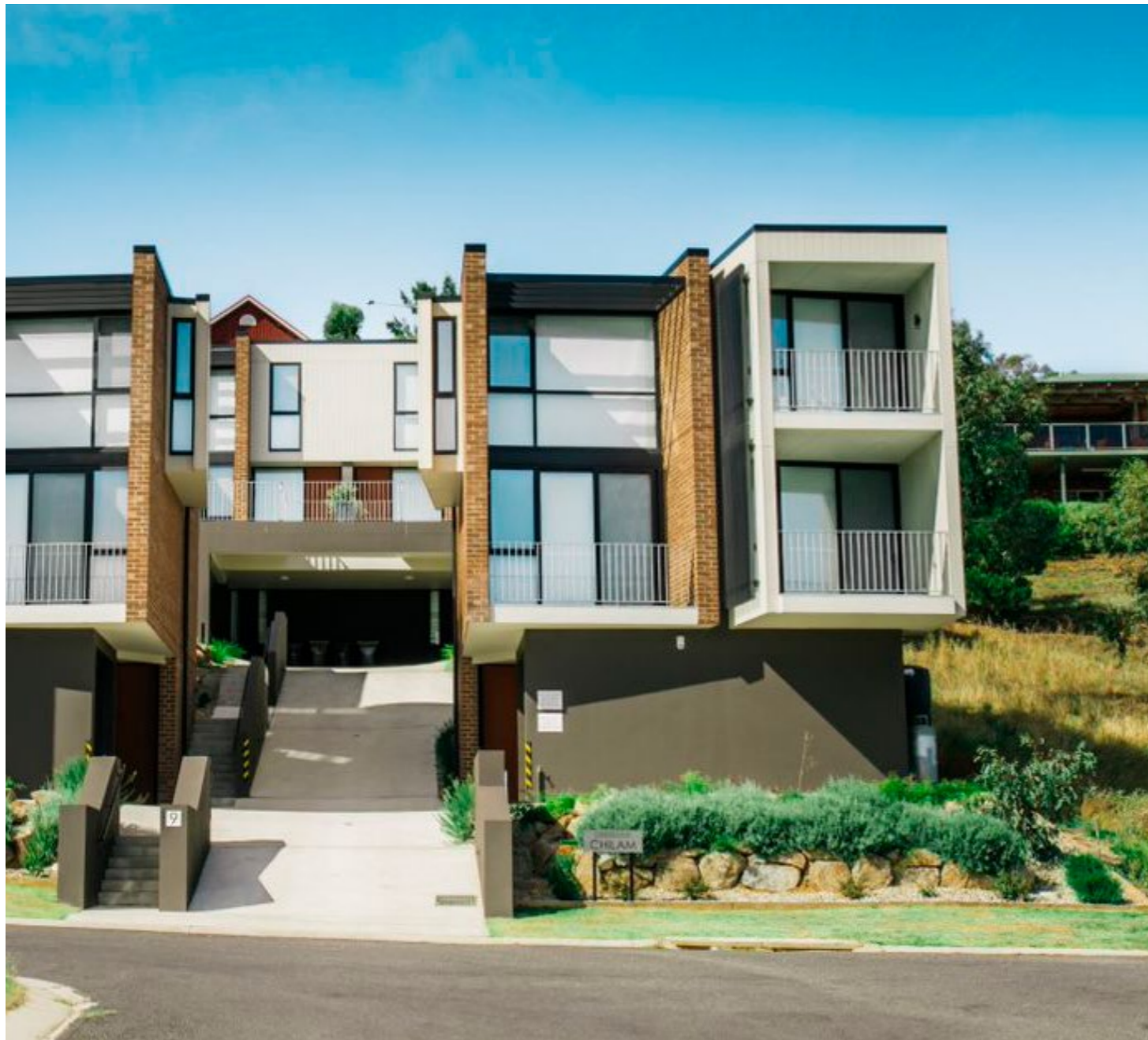
Nuggets Crossing Shopping Centre



Seating at Nuggets Crossing Shopping Centre



Residential architecture



Contemporary apartments



An example of a dwelling responding to slope and using natural materials and colours in the built form



Predominately low density housing throughout Jindabyne



An example of two storey dwellings



Jindabyne Tourist Accommodation



Horizons Resort

Local Roads



Kosciuszko Road, looking north, near town centre. The road design is a barrier between the lake and town



The Station accommodation, south of town



Apartment accommodation



Kosciuszko Road, looking west, adjacent Nuggets Crossing Shopping Centre



Local streets exhibit an unremarkable public realm



Jindabyne Community Facilities



Jindabyne Sport and Recreation Centre



Community Garden



Rope course at Jindabyne Sport and Recreation Centre



National Parks and Wildlife Service Snowy Region Visitor Centre



Athletics track at the Jindabyne Sport and Recreation Centre



East + South Jindabyne



Entrance to Tyrolean Village



View of town across Lake Jindabyne from Tyrolean Village



Rural landscape



Leesville industrial area, South Jindabyne, about 4km by road from the town centre and away from other built up areas



Alpine Resorts



Perisher Valley accommodation
Source: Perisher



Perisher Valley slopes
Source: Perisher



Skitube from Bullocks flat, Perisher Valley and Blue Cow
Source: Perisher



Kosciuszko Chalet Hotel
Source: NSW National Parks



Charlotte Pass Ski Resort
Source: NSW National Parks



Mount Selwyn Ski Resort
Source: NSW National Parks



Skitube terminal at Perisher



Thredbo Village
Source: Thredbo



Thredbo Ski Resort



Mountain biking in Thredbo



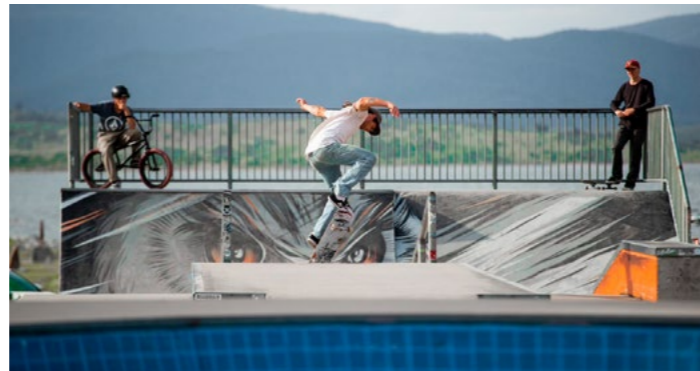
Perisher Ski Resort
Source: Visit NSW



Lake Jindabyne



Lake Jindabyne views from Jindabyne



Jindabyne Skate Park



Lake Jindabyne Community Trail



Lake Jindabyne waters edge



Sailing on Lake Jindabyne



Banjo Paterson Park



Jindabyne Bowling and Sports Club



Lake Jindabyne waters edge



Jindabyne Dam



Kosciuszko National Park



Kosciuszko Tourist Park
Source: Tourism Snowy Mountains



Granite Tor on the North Rams Head Range



Sawpit Creek waterfall



Mount Kosciuszko hiking trail



Valentine Hut



Kosciuszko express chairlift in summer



Mount Townsend



Kosciuszko National Park in summer



Snowboarders watch a sunrise




Geehi mountain ranges



Click drop down boxes
for more info

2.8 Why Snowy? _ summary of key issues + opportunities





This section provides a review of several alpine destinations from around the world to determine key success factors to be applied to the SAP

3. Best Practice Review - Australia + International Case Studies

- 3.1 Queenstown, New Zealand
- 3.2 Wanaka, New Zealand
- 3.3 Aspen, USA
- 3.4 Lake Placid, USA
- 3.5 Bright, Victoria
- 3.6 Derby, Tasmania
- 3.7 Other Case Studies
- 3.8 Lessons from Australian + International Cases



3.1 Queenstown, New Zealand

Quick facts on Queenstown, a fast growing adventure tourist town often cited as a comparison for the Snowies

"Home of adventure"

- Destination Queenstown

Queenstown is located within the South Island of New Zealand on the shore of Lake Wakatipu and set against the Southern Alps.

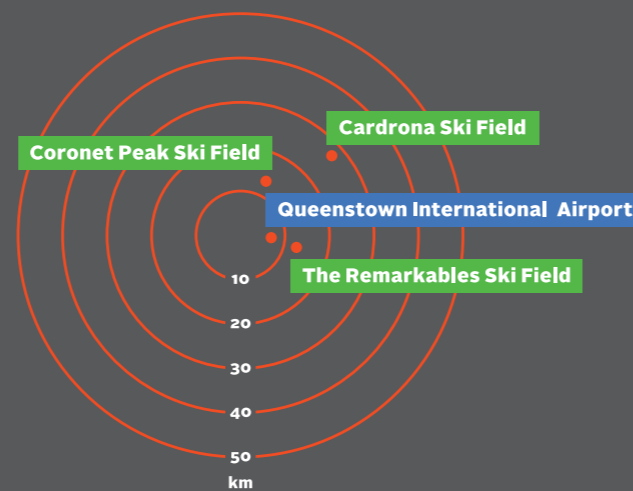
Queenstown is known as the 'Crown Jewel' of NZ's tourism industry, central to the country's tourism success and synonymous with New Zealand's international tourism brand.



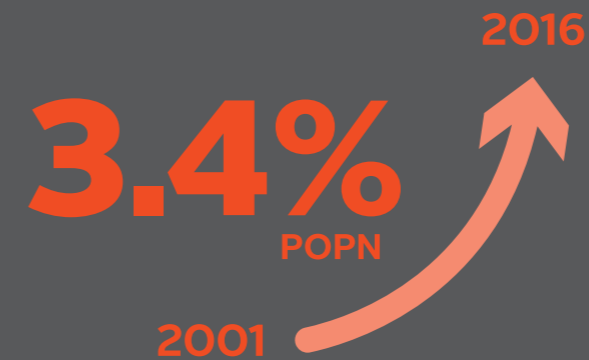
Urban footprint



Population



Distance to key locations



Annual population growth



Queenstown and Lake Wakatipu

Source: Destination Queenstown, 2020

Source: StatsNZ Census data, 2001-2016



Queenstown's success factors to learn from

Core elements of successful year-round tourism

- _ Close proximity and access to natural attractors such as Milford Sound and glacial Lake Wakatipu.
- _ Striking natural environment/scenery.
- _ Unique events, activities and experiences on offer throughout the year which continue to establish and maintain national/regional reputation.
- _ A strong adventure tourism industry e.g. commercial jet boating, bungy jumping, white water rafting, tandem paragliding and skydiving, skiing, hiking and kayaking.
- _ Reliable snow.
- _ Close proximity to an international airport.
- _ Reputation as a safe and friendly place.
- _ Renowned restaurants and bars e.g. Fergburger.

Management of tourist influx in winter/summer

- _ Detailed planning and coordination between Council and key agencies prior to tourism events being held to determine capacities.
- _ Review of issues encountered post events to improve on next time.
- _ Measures to deal with overflow visitor parking e.g. pop-up park and rides in open locations such as sports fields.

Competitive advantage over other similar international alpine towns

- _ Ease of arrival.
- _ All season attractions.
- _ Cheaper to visit than Australia, North America or Europe.
- _ Ability to cater to a variety of people with its range of activities on offer.

Liveability of residents

- _ Queenstown's destination marketing organisation, Destination Queenstown, works with the local community to engage, inform, influence and maintain a 'sense of place' and 'social licence' in support of tourism. Destination Queenstown aims to ensure that any negative sentiment by residents is listened to, understood and mitigated as far as possible (Destination Queenstown, Graham Budd, 2017).

Amenity for visitors

- _ Locals mixing with international visitors creates an authentic experience for tourists.
- _ A visitor levy is being considered by authorities as a stream of income that could be used to fund visitor amenities, infrastructure upgrades and business development.



Jet boating on Dart River
Source: Destination Queenstown, 2018



Bungy jumping off the Kawarau Bridge
Source: Destination Queenstown, 2016



Queenstown Bay, Lake Wakatipu
Source: Destination Queenstown, 2019



Connecting town centres to waterfront

- _ Shared spaces along waterfront to encourage active travel and increase walkability.
- _ Multi-functional open green spaces e.g. open space during the day and concert grounds at night.

Flood management measures within town centre waterfront activation spaces

- _ Flood warnings.
- _ Sealing sewer piping and pump stations within the waterfront flood zone to mitigate leaking into lake.
- _ Buildings in the Queenstown town centre within flood zone are built to a certain minimum floor height (Flood Risk Management Strategy, QLDC, 2006).

Schemes to enhance tourism

- _ In 2017, the Queenstown Trails Trust (QTT) announced \$15 million expansion plans to grow the existing trail network and provide alternate travel routes (QTT, 2020)

Alpine training presence

- _ National training base for high performance athletes in winter sports.
- _ The New Zealand Winter Games is an international multi-sport event held every two years in Queenstown and Wanaka.

Environmental sensitivity

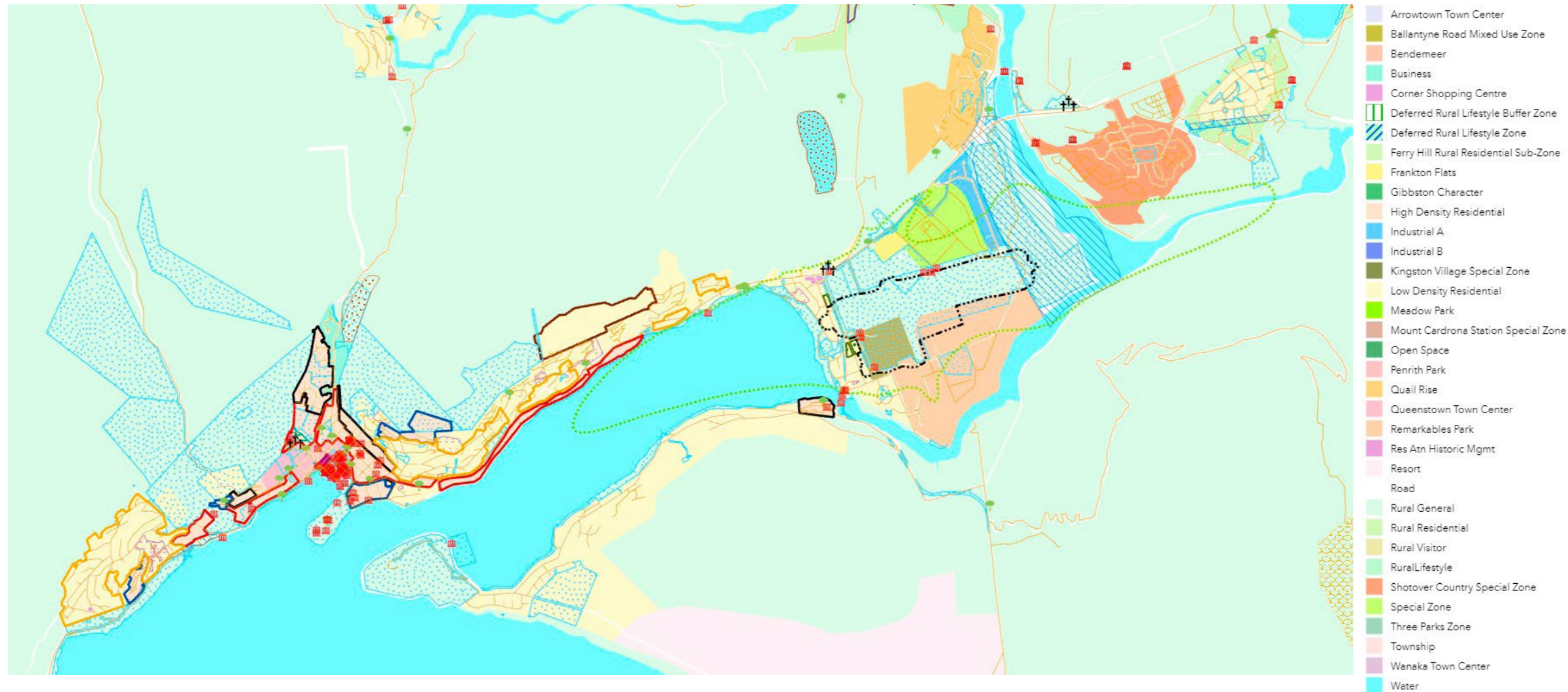
- _ Kosciuszko National Park protected under conservation orders.
- _ The Remarkables ski area is located within a conservation area.
- _ Eco-tourism e.g. Ziptrek.
- _ Sustainable high-end resorts e.g. Camp Glenorchy was built and operates under the Living Building Challenge which has been recognised as the world's most stringent environmental building design certification.
- _ The Coronet Peak Ski Area mitigates environmental impact with waste management initiatives, conservation support projects and energy efficient operations.
- _ District plan includes an 'outstanding Natural Landscape' zone.
- _ Urban design panel established to focus on sustainable housing designs e.g. efficient passive house design.



Proposed shared space treatment within town centre
Source: New Zealand Institute of Landscape Architects, 2017



Winter Games NZ
Source: Winter Games NZ, 2020



The Queenstown Lakes District Council district plan is currently under review. The current District Plan aims to limit rural infill, enable public transport and maintain an urban growth boundary. Queenstown's town centre encourages high density residential development and a diverse range of mixed-use centre of retail, commercial, administrative, entertainment, cultural and tourism activity. The Low Density Residential Zone is the largest residential zone in the Queenstown District. Zoning around the Queenstown Airport in Frankton allows for residential, recreational, commercial, educational, industrial and visitor accommodation activities. Queenstown's constrained development footprint is clearly visible from this plan.

Source: QLDC, 2020



Issues to mitigate or avoid at Snowy Mountains SAP

Liveability of residents

_ Continual visitor growth within Queenstown in recent years has created some resident resistance to the negative impacts of this growth.

Housing affordability

_ The median house price of homes within Queenstown are the second highest in the country, causing acute housing issues at times.

_ The Queenstown-Lakes Housing Accord was created between the Queenstown-Lakes District Council and the Government to increase housing supply and improve housing affordability by facilitating development of quality housing that meets the needs of the growing local population (Queenstown Lakes Community Housing Trust, 2020).

Planning framework

_ Poor land use planning in the past has resulted in dispersed land uses.

Transport, access and connectivity

_ Car-centric transport system with frequent traffic congestion, especially in peak holiday periods.

_ Carparking is reaching capacity.

_ Local topography limits the ability to extend or expand current road transport corridors, which constrains accessibility and spreads growth over a wide area.

_ Local residents live in satellite towns and commute daily to Queenstown for work.

_ Focus on growth creates pressure on existing road infrastructure.

_ Limited public transport.

Potential solutions proposed:

_ Bypass road to limit the number of cars within the town centre

_ Increasing public transport.

_ Gondola within the city - connecting the CBD to the airport and to the Remarkables Ski Area.

_ Water taxis.

_ Higher capacity winter shuttles to ski areas

Airport quality and capacity

_ Airport location – close to housing, schools and community facilities.

_ Community back lash in terms of noise boundary changes.

_ Fast growing airport - 3.2 million passenger movements per annum are projected by 2025, however the current airport noise limit will only allow for a maximum of 2.6-2.8 million passenger movements per year.

_ Queenstown is the third largest international airport in New Zealand.

_ Continued growth is illustrated in the recent Queenstown Airport 30-year master plan (30-year Master Plan Options, Queenstown Airport, 2015)

Other constraints

_ Geotechnical e.g. natural hazards.

_ Limited space to grow.

_ Topography.

_ Demand for hotel rooms in Queenstown has been growing at a much faster rate than supply.



Queenstown town centre

Source: Destination Queenstown, 2020



Queenstown restaurants

Source: National Geographic, 2018



International Airport at Queenstown

Source: Queenstown Airport, 2018

3.2 Wanaka, New Zealand

Quick facts on Wanaka, one hour from Queenstown, with a more relaxed vibe

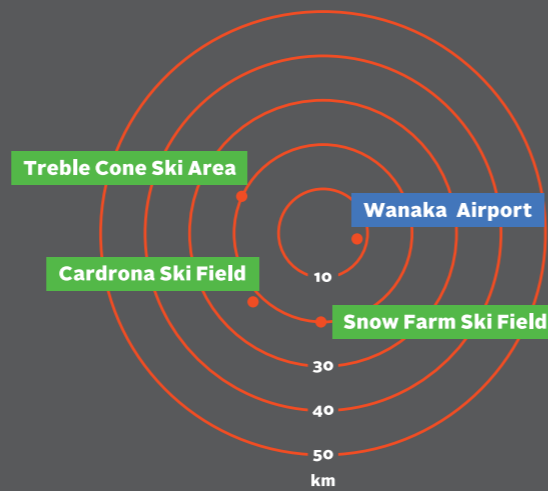
Wanaka is situated in the Otago region of New Zealand's South Island. Wanaka is set against the alpine backdrop of Mount Aspiring National Park and surrounds the southern edges of Lake Wanaka.



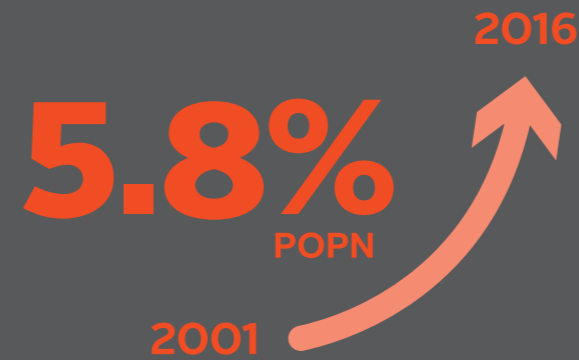
Urban footprint



Population



Distance to key locations



Annual population growth



Lake Wanaka and the township of Wanaka
 Source: New Zealand Tourism, 2018

Source: StatsNZ Census data, 2001-2016



Wanaka's success factors to learn from

Successful year-round tourism

- _ Marketing initiatives across consumer, trade and media channels which target a diversified market mix and prioritise NZ and Australia.
- _ Proximity to the Mount Aspiring National Park, which is a UNESCO World Heritage Area.
- _ Home to world class events e.g. Warbirds over Wanaka, Festival of Colour, Rhythm & Alps and the Audi Quattro Winter Games.
- _ Strong nature-based tourism e.g. rock climbing, skiing, mountaineering, kayaking, biking, skydiving.
- _ Scenic flight tours.

Liveability of residents

- _ A strong 'social licence' ensures that local residents remain supportive of the visitor industry and welcome the diversity, social and economic benefits that tourism brings.

Competitive advantage over other similar international alpine towns

- _ Utilisation of technology - online presence to reach the right audience to attract and capture visitors.
- _ Easy to access via Queenstown Airport from major cities in New Zealand and Australia's east coast, but without the amenity impacts.

Connecting town centre to waterfront

- _ The Wānaka Town Centre Masterplan (currently undergoing consultation) proposes:
 - _ Closing off parts of Ardmore Street to through traffic to enhance the town centre and lake front.
 - _ Shifting parking away from the lake front to enhance the amenity of the area and provide a better experience for residents and visitors.
 - _ Diversifying open space areas and activities along the lake front through adding civic gardens, informal parkland, consolidated sports opportunities and a show ground.

Flood management measures within town centre waterfront activation spaces

- _ Incorporating flood awareness and risk management planning into all urban design and development initiatives.
- _ Flood proof building design and construction.

Schemes to enhance tourism

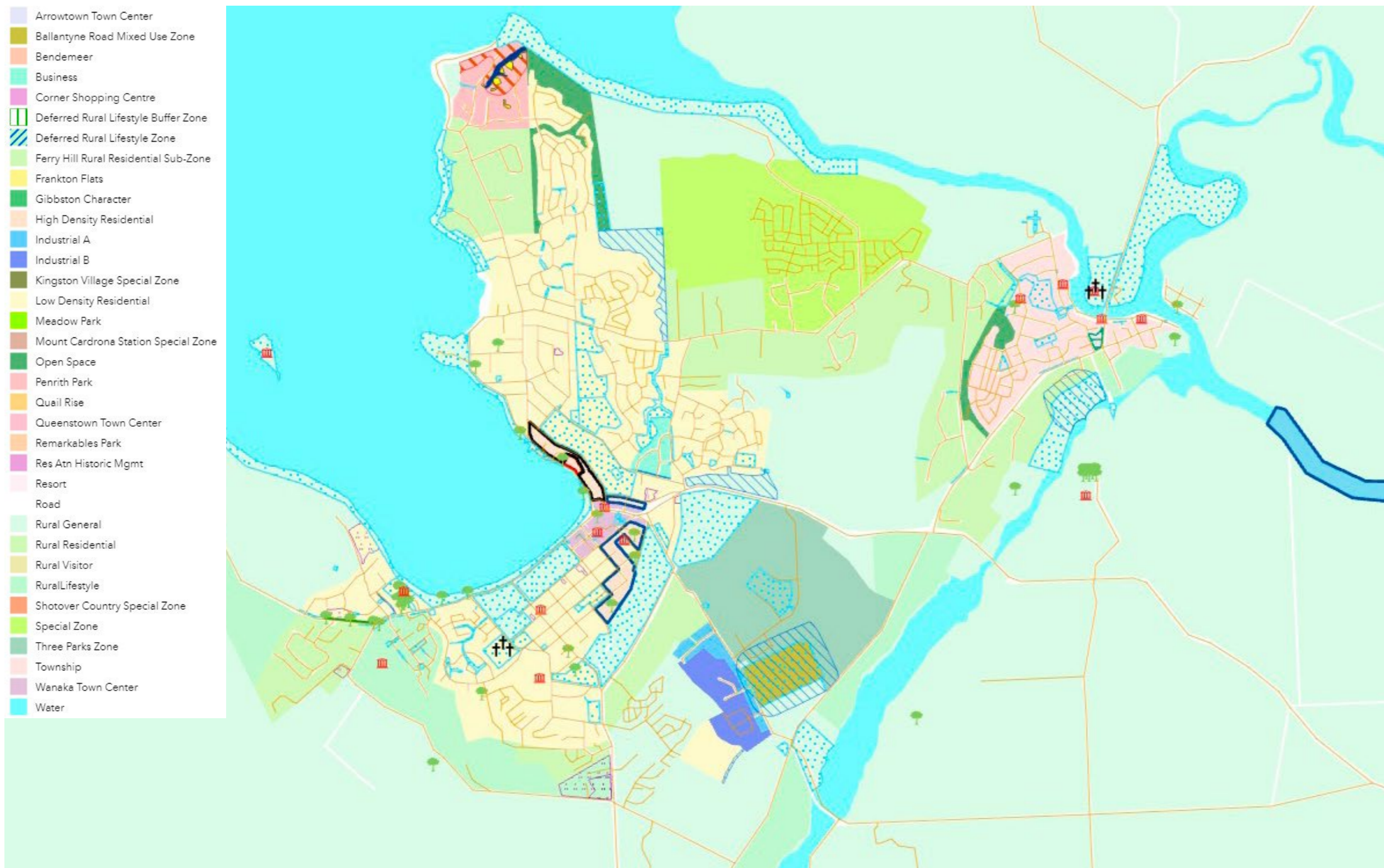
- _ Lake Wanaka Tourism is the Regional Tourism Organisation responsible to market the Wanaka region to domestic and international visitors.



Wanaka Town Centre Masterplan - Ardmore Street
Source: QLDC, 2019



The Warbirds over Wanaka air show has been held biennially at the airport since 1988.
Source: Hands Up Holidays, 2012



The Queenstown Lakes District Council district plan which covers the zoning for Wanaka is currently under review. Wanaka's town centre is situated at the edge of Lake Wanaka and comprises of the Wanaka Town Centre, Rural General and High Density Residential zones. The principal values which contribute to the character of the Wanaka Town Centre are the low scale developments, general proportions of public open space and the maintained views to Lake Wanaka and the surrounding mountains. Other dominate zones within Wanaka comprise of low density residential and rural residential.

Source: QLDC, 2020



Issues to mitigate or avoid at Snowy Mountains SAP

Housing affordability

- _ Wanaka's housing is very expensive in the New Zealand context, through slightly less so than Queenstown.
- _ The Queenstown Lakes Community Housing Trust also provides housing projects in Wanaka to provide a range of housing programmes to assist eligible low to moderate income households into decent affordable housing with secure tenure (Queenstown Lakes Community Housing Trust, 2020).

Transport, access and connectivity

- _ Wanaka's cycle network largely consists of off-road recreational trails and generally does not support commuter access to key activities and destinations.
- _ The state highway network creates a barrier to access between local schools and the new recreation centre.
- _ There is currently no public transport available to residents and visitors.
- _ Inefficient road network - traffic congestion created from people traveling through the town centre to get across town as it is the only option.
- _ The Wanaka town centre arrival experience is currently underwhelming and is dominated by roads and infrastructure.
- _ Lake front and town centre are currently dominated by traffic and parked vehicles.

Airport quality and capacity

- _ Wanaka Airport currently has no scheduled commercial flights, with Air New Zealand having ceased flights to the airport in 2013. It serves as a base for scenic and charter flights.
- _ Queenstown Airport has developed a Master Plan setting out options for meeting current and future passenger demands, including leasing Wanaka Airport and the surrounding land to help future-proof operations.

Sources:

- _ *Lake Wanaka Tourism, 2020*
- _ *Wanaka Town Centre Masterplan options, QLDC, 2019*
- _ *Strategic Plan 2012/22, Lake Wanaka Tourism, 2012*
- _ *Flood Risk Management Strategy, QLDC, 2006*
- _ *30-year Master Plan Options, Queenstown Airport, 2015*



Rippon Festival
Source: Central Otago District Arts Trust, 2012



Cardrona ski field
Source: Lake Wanaka Tourism, 2019

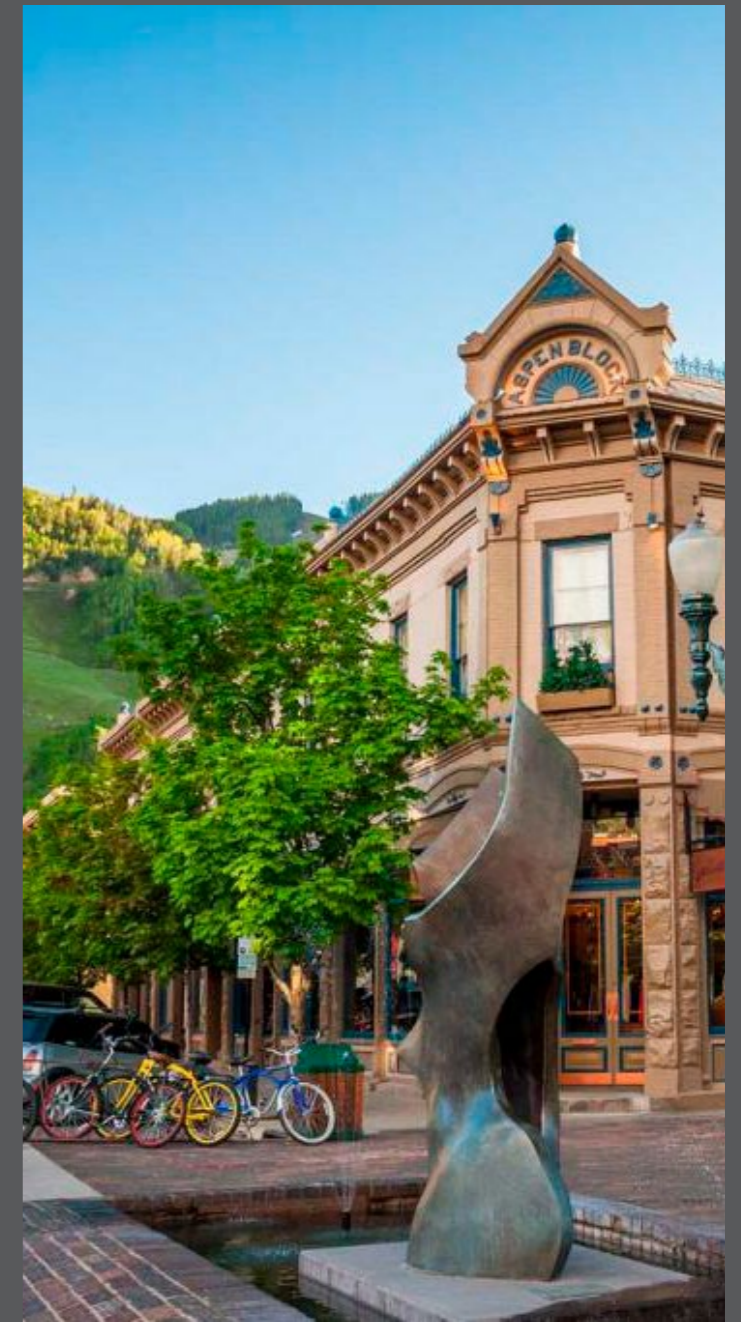
3.3 Aspen, USA

Quick fact on Aspect _ Well-known upmarket ski town in Colorado

"Deny Ordinary"

- Aspen Chamber Resort Association

Aspen is well known as a ski destination situated within the White River National Forest and surrounded by the peaks of the Elk Mountains.



Downtown Aspen
 Source: Colorado Tourism, 2019

Source: U.S. Census Bureau data, 2001-2019



Aspen's success factors to learn from

Year-round tourism

- _ Scenic views of the natural environment and wildlife.
- _ Proximity of the White River National Forest.
- _ Range of summer and winter recreation e.g. trekking, biking, cross country skiing, skiing/snowboarding and ice skating.
- _ Moderate to luxury tastes.
- _ Well-developed transport alternatives for easy access to amenities and activities.
- _ Partnerships with other nearby jurisdictions, stronger ability to attract and retain key businesses and events.
- _ Diverse economic base.
- _ World renowned sporting events e.g. X-Games (snow sports) and Pro Challenge (cycling race).
- _ Rich in history, culture and architectural heritage.
- _ International Music Festival, Food & Wine Festival and Ideas Festival.
- _ World-class shopping and dining.

Competitive advantage over other similar international alpine towns

- _ Workforce development - The Colorado Mountain College's targeted programs support workforce development in the region and are designed to build knowledge and skills for a tourist-based economy. Programs include Hospitality & Resort, Culinary Arts, Outdoor Studies, Ski & Snowboard Industry and English Language.

Liveability of residents

- _ In 1992, Kids First was established to provide childcare of great quality, affordability, and capacity for the Aspen community. Aspen has the only dedicated sales tax funding early childhood education in USA. The tax is set to expire in 2040.
- _ Aspen/Pitkin County voters approved a new property tax in 2002 to support the Healthy Community Fund which provides grants to local non-profits that support health and well-being in the community.
- _ The 'Aspen Idea' is a core element of the community's heritage and identity that

enriches resident quality of life and reinforces Aspen's national and international profile. The Aspen Idea is a legacy that has established Aspen as a place for those seeking renewal of their mind, body and spirit by cultivating lifelong education, civic engagement, physical health, personal responsibility, spiritual development and an environmental consciousness.

Amenity for visitors

- _ Walkability, bike and public transport options.

Housing affordability

- _ The Aspen/Pitkin County Housing Authority provides affordable ownership or rental options.

Transport, access and connectivity

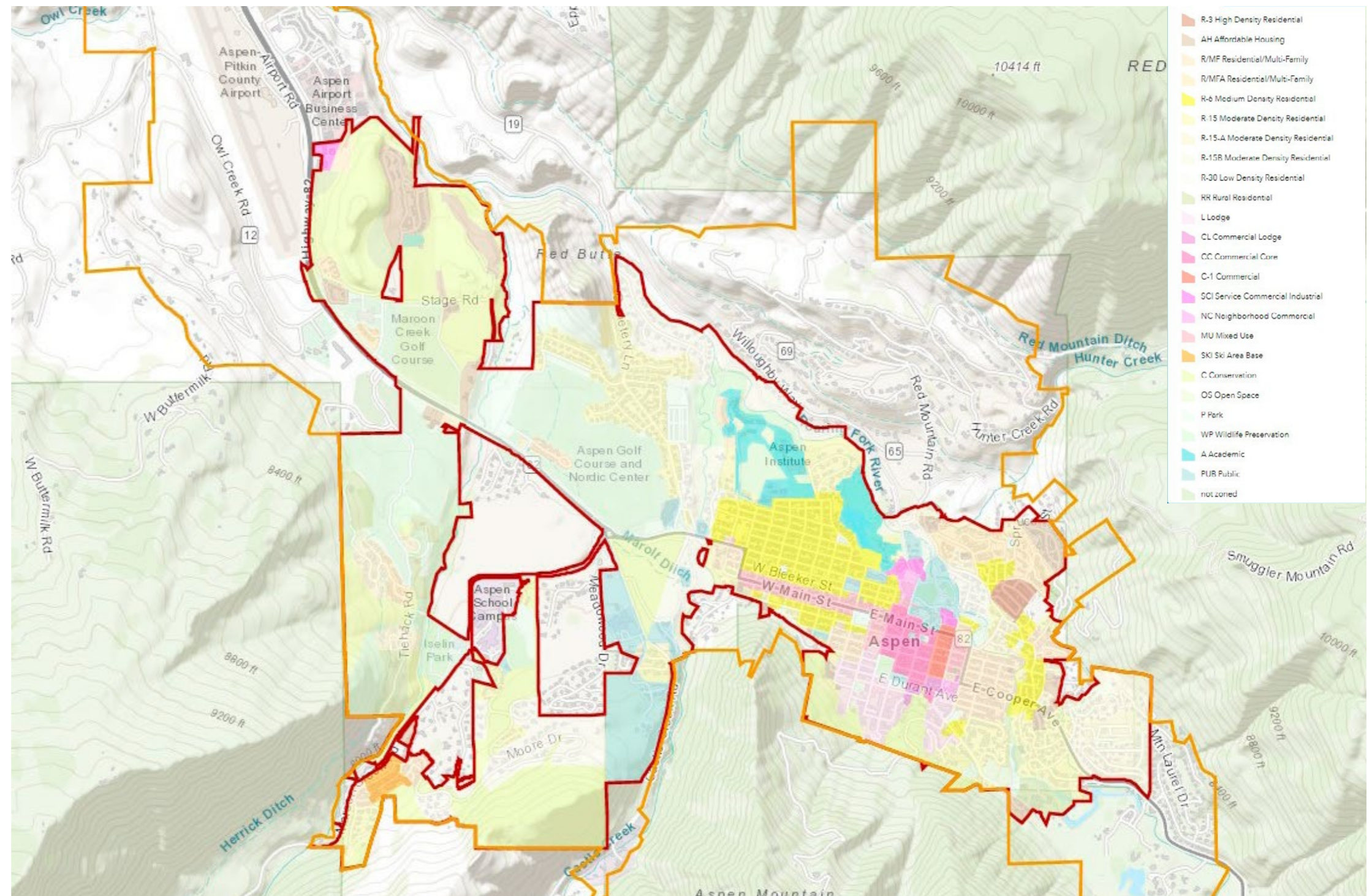
- _ Free rapid transit buses between Aspen, Snowmass ski resort and the Aspen-Pitkin County Airport.



Snowmass Ski Resort
Source: Aspen Chamber, 2018



Mountain biking in Autumn
Source: Colorado Tourism, 2019



The Zone District Map of Aspen indicates a dominate zoning of Medium Density Residential to create relatively dense settlements of predominantly detached and duplex developments that are within walking distance of the city centre. The centre of the city resembles a strong grid layout and is zoned as Commercial Core to allow for retail, service commercial, recreation, and institutional land uses within mixed-use buildings. Lands to the east of the city centre periphery comprise of medium density residential. Other dominate land uses in the wider Aspen city area are low density residential and open space. The urban growth boundary (orange line) indicates there is land available for growth areas outside of the Aspen city boundary (Red line).

Source: City of Aspen, 2020



- _ Car and bike share programs e.g. CAR TO GO and WeCycle. WeCycle bike docks are located throughout town.
- _ Improvements in biking and walkability around Aspen e.g. paved trails and a pedestrian oriented downtown mall area.
- _ Introduction of paid parking where funds generated are used to subsidize public transit.
- _ Special Parking Permits to encourage carpooling and low-emissions vehicles.

Schemes to enhance tourism

- _ The Aspen Chamber Resort Association aims to brand, market, and promote Aspen to domestic and international visitors.

Planning framework

- _ Urban growth boundary to limit sprawl.
- _ Diversifying the tourism accommodation.
- _ Limiting the mass and scale of homes.

Airport quality and capacity

- _ The Aspen/Pitkin County Airport has a high capacity with approximately 750 flights per month and receives commercial airline flights from 3 providers (Aspen Airport, 2020).

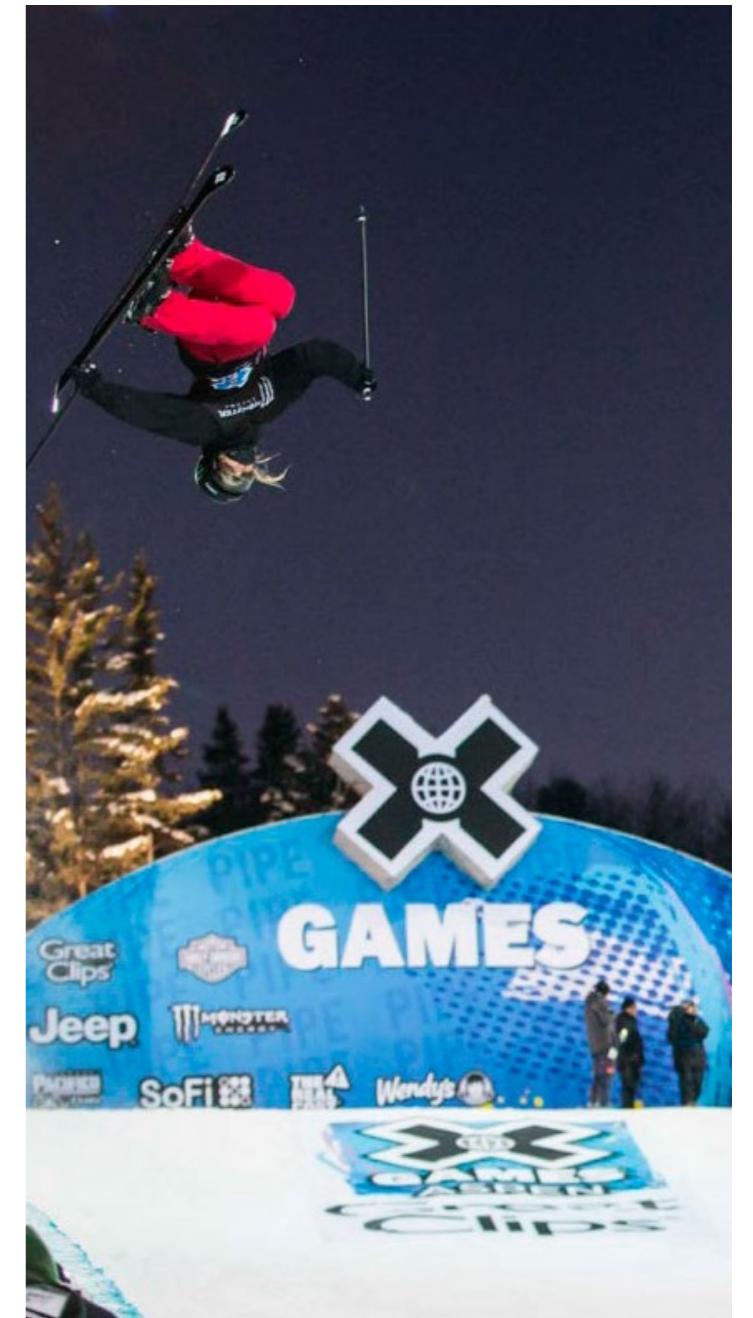
Alpine training presence

- _ Aspen has hosted the ESPN Winter X Games since 2002

Environmental sensitivity Constraints

- _ Aspen aims to reduce its GHG emissions 80% below the recorded 2004 levels by 2050.
- _ In 2015, Aspen achieved 100% renewable energy (46% hydroelectric, 53% wind power, 1% landfill gas).

- _ Aspen's ZGreen Program - a certification and outreach program aimed at Aspen's businesses, events, residents and visitors to raise awareness on sustainability and to use environmentally friendly practices.
- _ "Pay as You Throw Program" - residents pay a variable general waste service rate depending on the amount of waste generated.



ESPN Winter X Games
Source: Aspen Chambers, 2019



Issues to mitigate or avoid at Snowy Mountains SAP

Liveability

- _ Relatively high cost of living, accessibility to affordable housing, childcare, and healthcare remain key issues.

Housing affordability

- _ Aspen's current cost of housing rating is at 516.0, where an index of 100 represents a national average cost of housing.
- _ Extremely high property values and a proliferation of second and third homeowners has meant that low and middle income workers are unable to secure housing in town.
- _ At least 50 billionaires on Forbes' most recent wealth lists own property in the Aspen area.

Transport, access and connectivity

- _ Traffic congestion during peak periods.

Planning framework

- _ Developer-led approach to planning.
- _ High-value buyers purchasing whole city blocks in order to use the penthouse apartment while keeping the street level and intervening levels empty.
- _ Inconsistent development with the history, scale, density, and context of the existing built environment.

Sources:

- _ *Aspen Area Community Plan, City of Aspen and Pitkin County, 2012*
- _ *Aspen Sustainability Report, City of Aspen 2016*
- _ *City of Aspen, 2020*



Housing in Aspen

Source: Aspen Chamber, 2018



Shopping strip

Source: Aspen Chamber, 2018



3.4 Lake Placid, USA

Quick facts

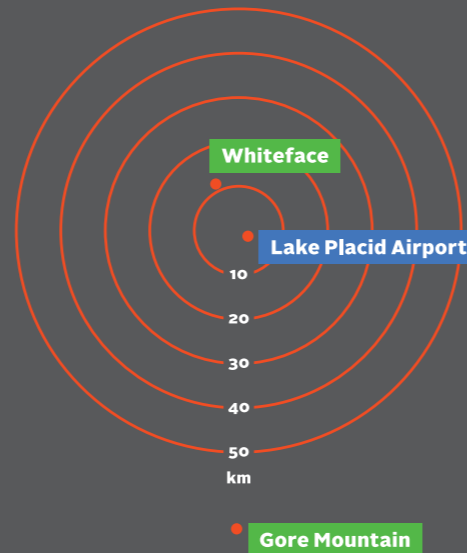
“Invent your own perfect day”

- The Regional Office of Sustainable Tourism

The village of Lake Placid is situated in Northeast New York State in the Northern Adirondacks. Home to the 1932 and 1980 Olympic Games, Lake Placid has an international pedigree.

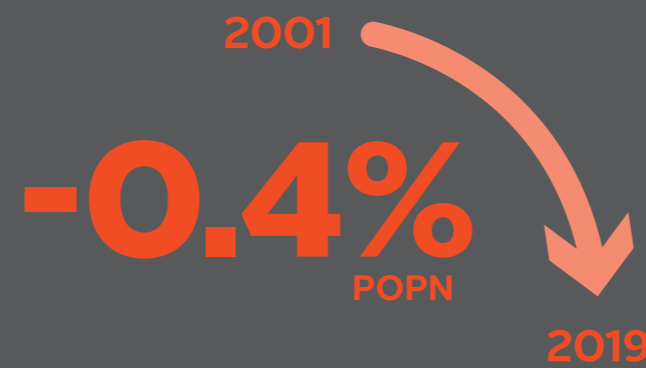


Urban footprint

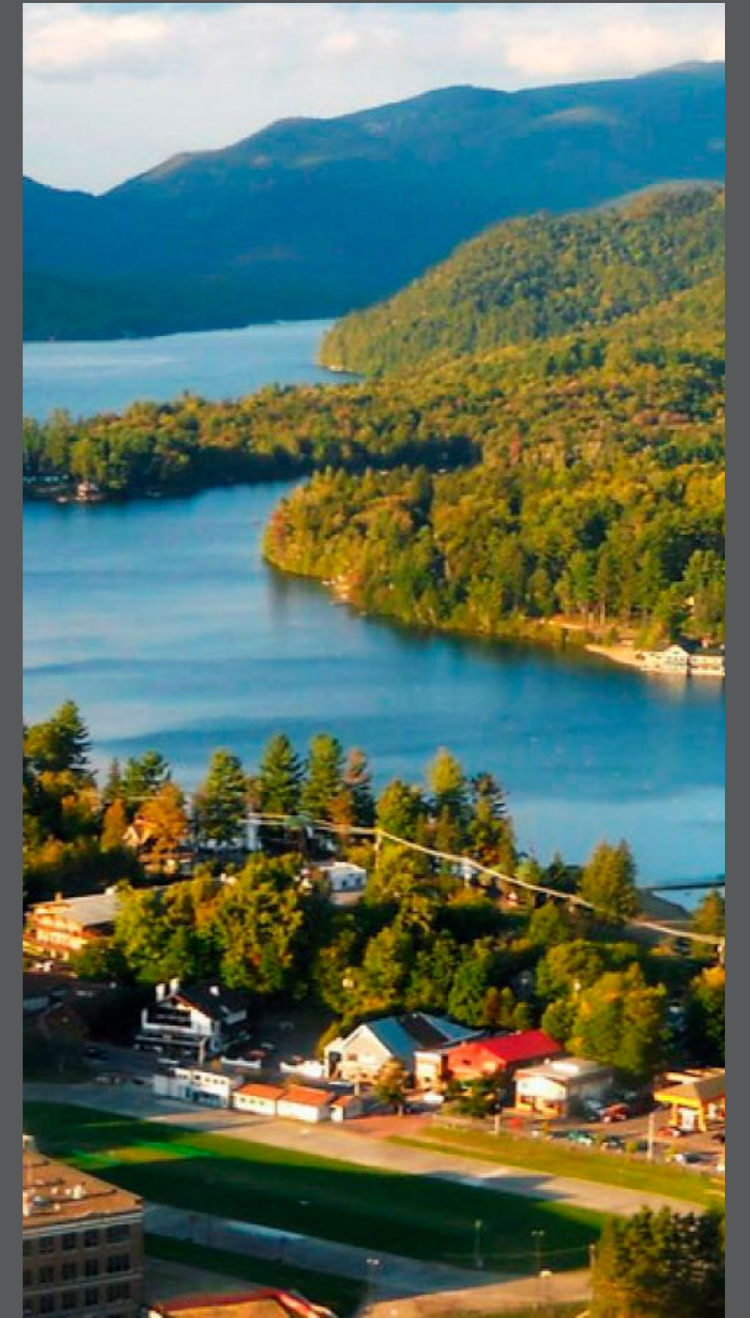


Distance to key locations

Population



Annual population growth



Lake Placid

Source: Regional Office of Sustainable Tourism, 2019

Source: U.S. Census Bureau data, 2001-2019



Lake Placid's successes to learn from

Year-round tourism

- _ Proximity to the Adirondack State Park, which is larger than Yosemite or Yellowstone National Parks, offers year-round outdoor activities.
- _ Proximity to the Whiteface Mountain.
- _ World-class alpine skiing and a winter sports history that includes hosting two Winter Olympic Games.
- _ Annual summer sporting events e.g. Ironman triathlon and horse show.
- _ Community festivals e.g. the Holiday Village Stroll Weekend.
- _ Vibrant arts scene.
- _ Small friendly town.

Alpine training presence

- _ The region honours its Olympic heritage, operating as a training ground for each new generation of athletes.
- _ Several Olympic venues are open to visitors (ski jumping complex, the bobsled run at Mt. Van Hoevenberg and the ice skating rinks on Main Street).
- _ Athletes gravitate to the area to train for competitive events like the Ironman Triathlon.

Competitive advantage over other similar international alpine towns

- _ Within a half-day drive of three major metropolitan areas; New York, Boston and Montreal.
- _ The Olympic Authority is a major promoter of tourism in the region, using its Olympic clout and the publicity achieved through its sporting events to help Lake Placid and surrounding communities attract international visitors.

Liveability of residents

- _ Developing a partnership between tourism and the community through the establishment of the Lake Placid Community Council. The Council is a line of communication among residents, tourism businesses and the local government.
- _ An exciting mix of events and tourism experiences covering a broad spectrum of interests.

Housing affordability

- _ It was recently announced that the Athletes' Village and Media Village that will be constructed to facilitate the 2023 World University Games in Lake Placid will be offered as housing to local families once the games are complete to ease housing costs.

Transport, access and connectivity

- _ Free public trolley and shuttle services.
- _ The trolley serves remote parking areas to encourage visitor parking away from the immediate downtown area.

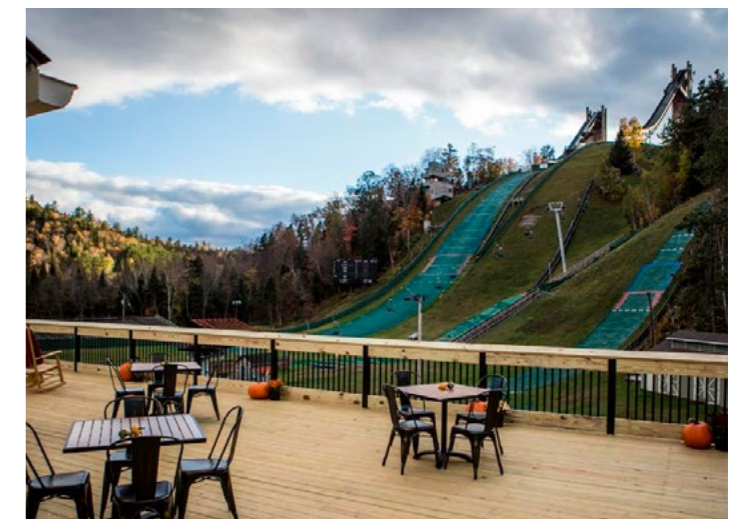
Schemes to enhance tourism

- _ New York State is in the process of a multi-million dollar reinvestment/revamp of the Lake Placid Olympic Sports Complex facilities in anticipation of the 2023 World University Games.
- _ The Regional Office of Sustainable Tourism (ROOST) is the destination marketing organisation responsible for promoting Lake Placid.
- _ A lodging tax that is programmed for marketing Lake Placid.



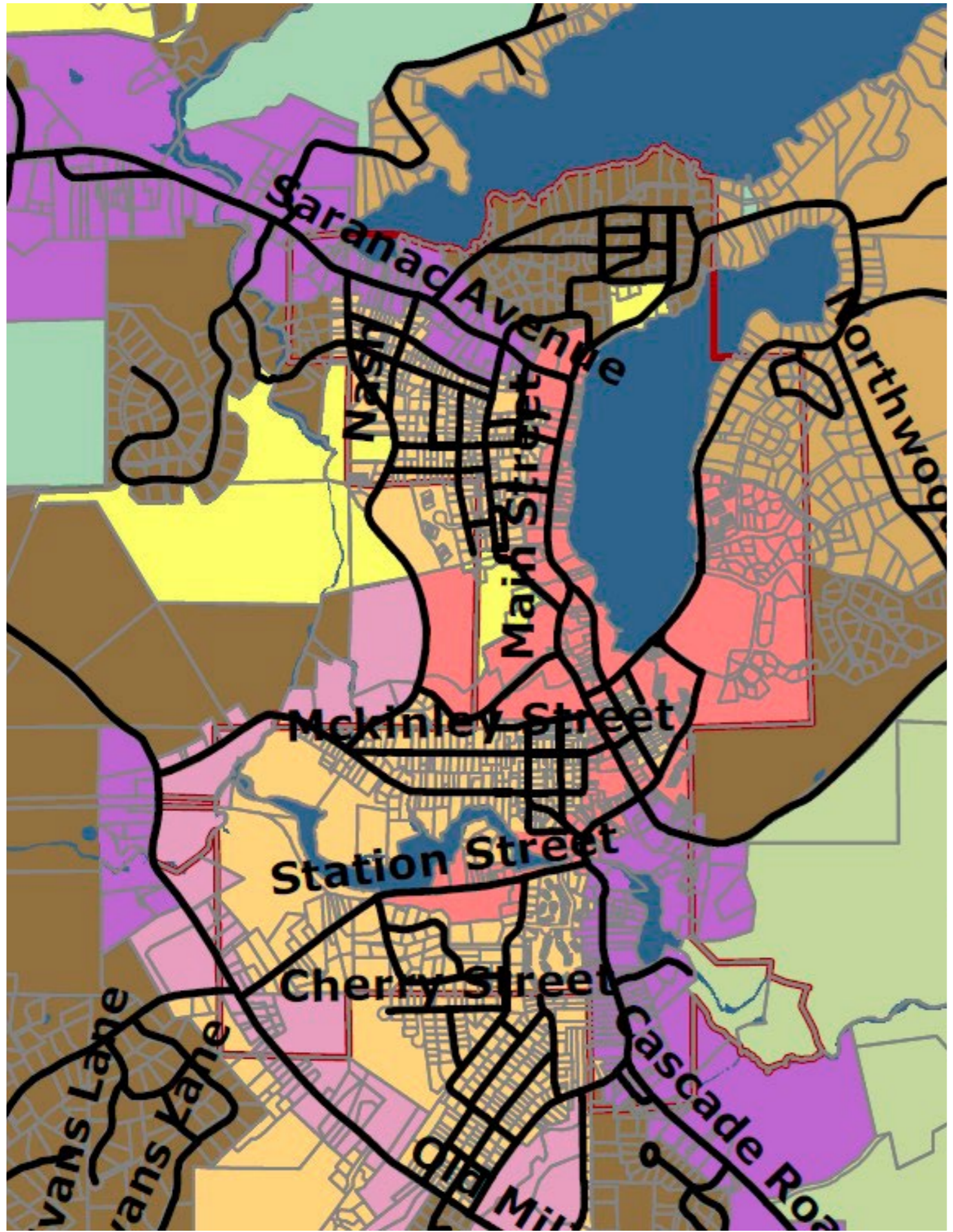
Lake Placid town centre

Source: Regional Office of Sustainable Tourism, 2017



Olympic Ski Jumping Complex

Source: Regional Office of Sustainable Tourism, 2019



Legend

- | | |
|----------------------------------|-------------------------------|
| Rural Countryside District | Roads |
| North Lake Residential District | Tax Parcels |
| South Lake Residential District | Town Boundary |
| Town Residential District | Village Boundary |
| Village Center District | Surface Water |
| Gateway Corridor District | NYS Forest Preserve Lands |
| Old Military Corridor District | Other State and Federal Lands |
| Pre-Existing Planned Development | |

The Land Use Code for the Lake Placid region was adopted in 2011 and is currently under review. It was designed primarily to reflect the principles of Smart Growth Development, encourage affordable housing, increase environmental protections and streamline the permit process. The Land Use Code map indicates that town centre growth will be concentrated around Mirror Lake and an emphasis placed on establishing gateway corridors.

Source: Town of North Elba / Lake Placid, 2011



Airport quality and capacity

- _ Small private or corporate aircraft are able to fly directly into Lake Placid Airport.
- _ Lake Placid is approximately a two hour drive from the international airports in Albany, NY, Burlington, VT, and Montreal.

Environmental sensitivity

- _ The Lake Placid Shore Owners Association - patrol and discourage boaters from introducing pollutants and invasives into the municipal reservoir.
- _ Adirondack Park Invasive Plant Program.
- _ The Conference Center at Lake Placid achieved Gold LEEDS certification.
- _ The Adirondack Park is a constitutionally protected Forever Wild area.
- _ Smart Growth Code.



Lake Placid Conference Centre
Source: Regional Office of Sustainable Tourism, 2019



Adirondack State Park
Source: Adirondack Park, 2018



Issues to mitigate or avoid at Snowy Mountains SAP

Housing affordability

- _ An increased number of second homes and holiday rentals have led to many residential areas turning into "dark neighbourhoods", consisting of houses that are empty most of the time.
- _ Too expensive for many people working in the tourism industry to live in.

Transport, access and connectivity

- _ Congestion and parking issues within town centre.
- _ Gateway corridors are crowded during peak hours.



Housing on the banks of Mirror Lake in Lake Placid
Source: Mike Groll, 2014



Aerial of downtown Lake Placid with the Olympic Centre in the foreground
Source: Adirondack Waterfront, 2001

Sources:

- _ *Visit Adirondacks, Adirondack Regional Tourism Council, 2020*
- _ *Lake Placid, Regional Office of Sustainable Tourism, 2020*
- _ *Village of Lake Placid / Town of North Elba Comprehensive Plan, 2014*

3.5 Bright, Victoria

Quick facts about Bright, in Victoria's high country and close to Mt Hotham and Falls Creek ski resorts

"A life lived outside"

- Alpine Shire

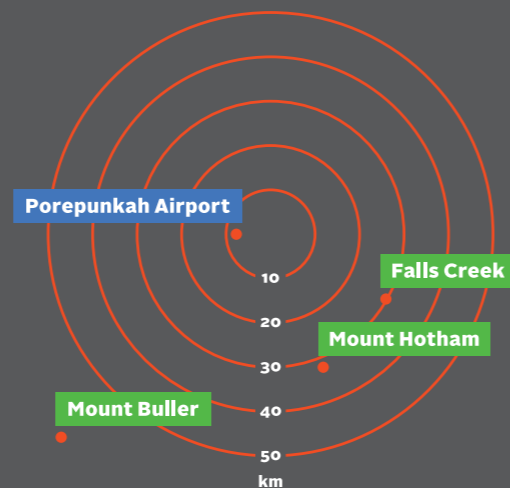
Nestled between Mount Buffalo and Alpine National Parks, Bright is an attractive town and convenient base for tourists to explore the surrounding alpine region including Mt Buffalo National Park.



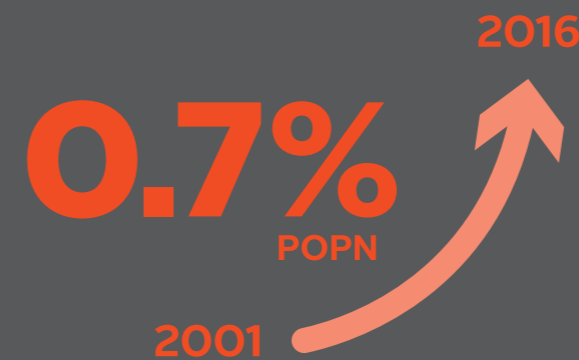
Urban footprint



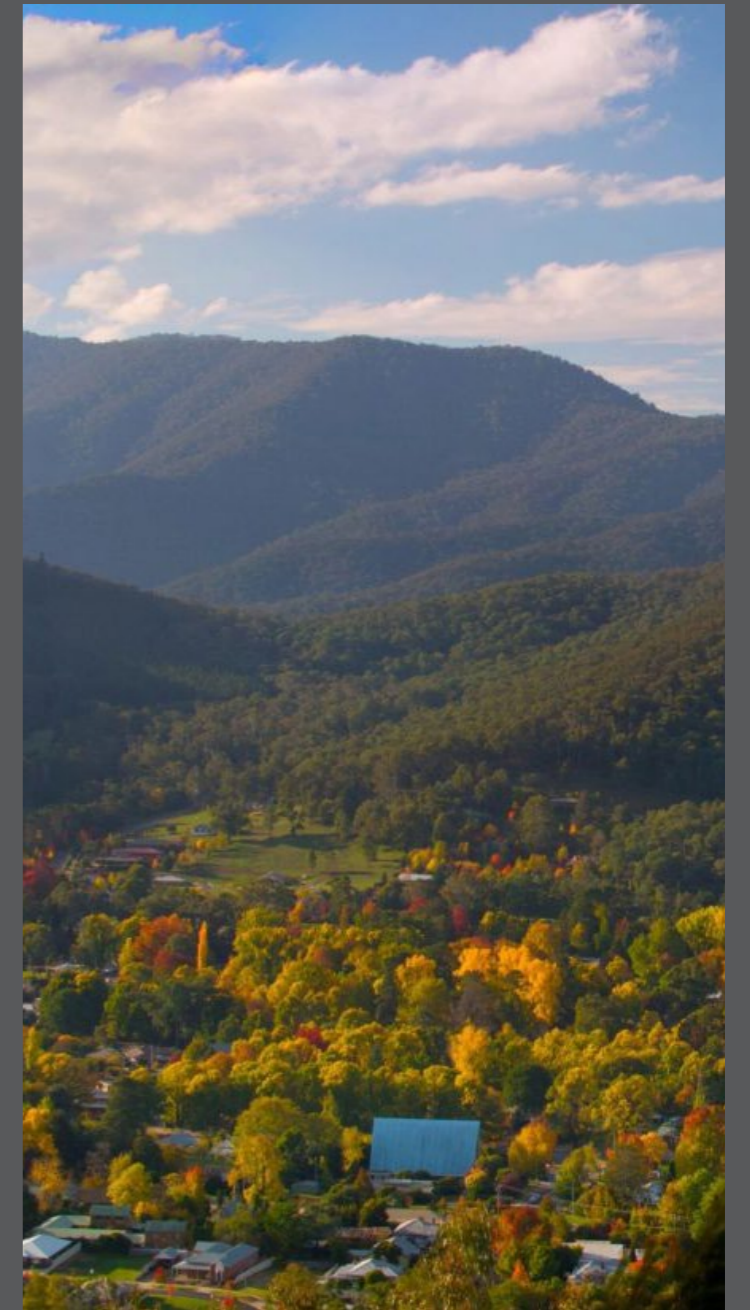
Population



Distance to key locations



Annual population growth



Bright in Autumn

Source: Alpine Shire, 2016

Source: ABS Census data, 2001-2016



Bright's successes to learn from

Successful year-round tourism

- _ Nature-based tourism.
- _ Reputation for fine food and wine.
- _ In close proximity to national and state parks, iconic touring routes, sites of significant natural and cultural history.
- _ Gateway to Victoria's largest ski resorts of Falls Creek and Mt Hotham.
- _ Retained village feel and amenity.
- _ Thriving arts and culture precinct.

Competitive advantage over other similar international alpine towns

- _ Attracts almost all sectors of the tourism market, from families and elderly tour groups, to adventure and extreme sport enthusiasts.

Liveability of residents and amenity for visitors

- _ A signature characteristic of Bright is the dominant deciduous European alpine and avenue plantings which create strong linear spaces within the public realm.

Public realm

- _ High priority projects include revitalisation of Mafeking Square, pedestrian and cycling links between the river precinct and the CBD.
- _ A 'river pool' is provided in the summer months at the confluence of the Ovens River and Morse's Creek near Centenary Park through the placement of a temporary weir wall for public use.
- _ Bright Splash Park (water park for children) in Centenary Park.

Transport, access and connectivity

- _ Strong pedestrian scale - network of dedicated and shared paths provide safe access for pedestrians and cyclists across much of the township.

- _ The Rail Trail assists in cycle access - provides a thoroughfare through the western part of the township through to the commercial precinct.

Schemes to enhance tourism

- _ In 2016, the Regional Development Victoria announced a \$500,000 grant 'Alpine Better Places – Economic Rejuvenation for Bright' for township improvement works and investment in strategic infrastructure.

Planning framework

- _ Planning and Land use in Bright is governed by the Alpine Planning Scheme.

Airport quality and capacity

- _ There are two airfields in region - Porepunkah and Mount Beauty which are a base for general aviation, gliding, ultralight and model aircraft flying.
- _ Albury Airport is about 1.5 hours from Bright. Several flight options daily from Melbourne and Sydney.



Bright town centre
Source: Alpine Shire, 2016



Rail Trail
Source: Tourism North East, 2020



Alpine training presence

_ Bright Alpine Classic 2021 (cycling event).

Environmental sensitivity

_ Vegetation Protection Overlay and the Environmental Significance Overlay to sites of biological significance and remnant native vegetation.

_ Sustainable Upper Ovens (SUO) is community-based organisation formed in 2018 aimed at helping householders and small businesses to adopt improved energy efficiency measures, switch to renewable energy and maximise opportunities to reduce, reuse and recycle resources.

Sources:

- _ *Alpine Shire 2030, Community Vision, Alpine Shire Council, 2010*
- _ *Alpine Planning Scheme, Victoria State Government, 2020*
- _ *Tourism North East Three Year Strategy 2019/20–2021/22, Visit Victoria, 2018*
- _ *Victoria's High Country Destination Management Plan 2013–2023, Visit Victoria, 2012*
- _ *Bright and Surrounds, Alpine Shire, 2016*



Bright Splash Park at Centenary Park

Source: Alpine Shire, 2016



Bright Alpine Classic

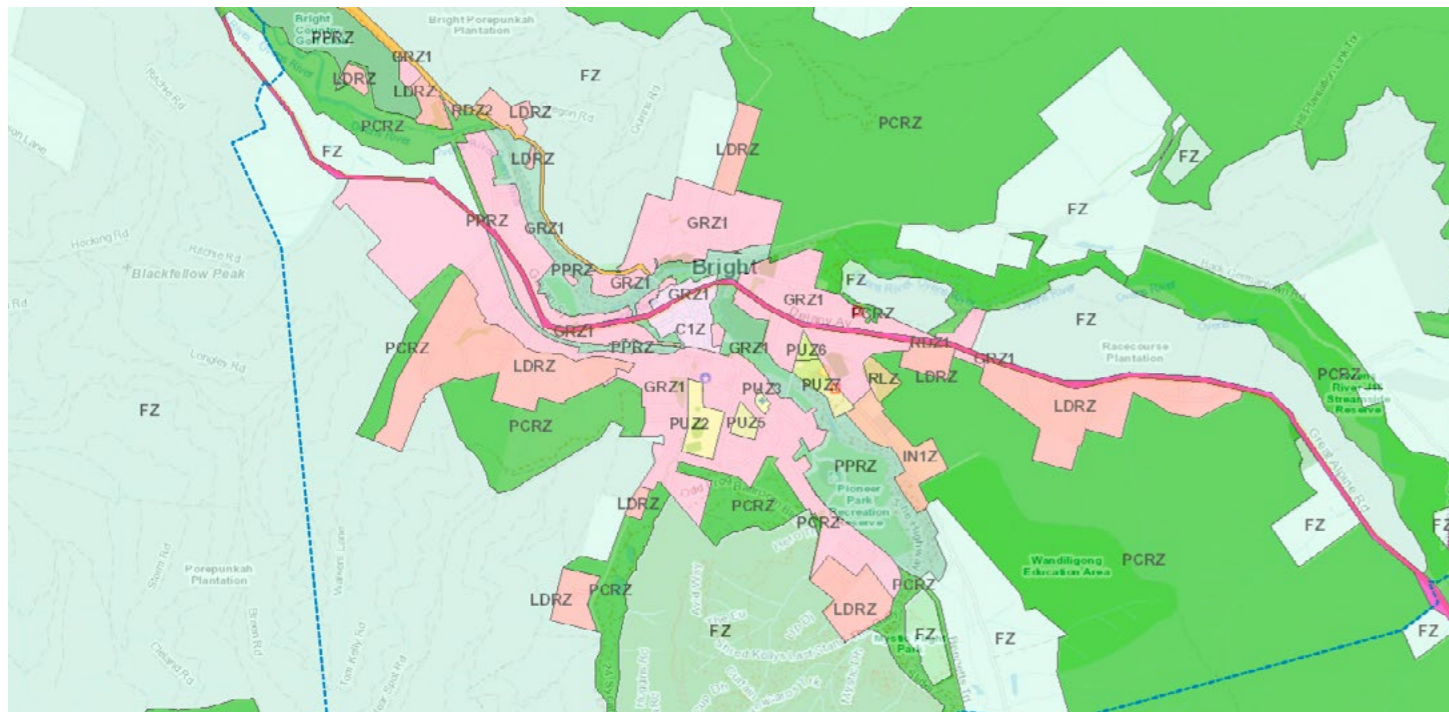
Source: Alpine Shire, 2020



Issues to mitigate or avoid at Snowy Mountains SAP

Transport, access and connectivity

- _ A perceived lack of car parking is an issue among the community.
- _ Poor directional signage to off street car parks.



The Planning Scheme zoning map for Bright encourages redevelopment and intensification of existing urban areas by providing for higher density development and mixed uses around the commercial core of the township. The dominate General Residential Zone in Bright encourages residential development close to major existing retail, community and commercial facilities. Bright's constrained development footprint is clearly visible from this plan with limited areas for urban growth.

Source: Vic Plan, 2020



The Planning Scheme land use map for Bright displays a small town centre situated on the Ovens River comprising of commercial and residential land uses. Residential and primary production are other dominate land uses across the Bright area. Single commercial developments and community facilities are dispersed across the township.

Source: Vic Plan, 2020

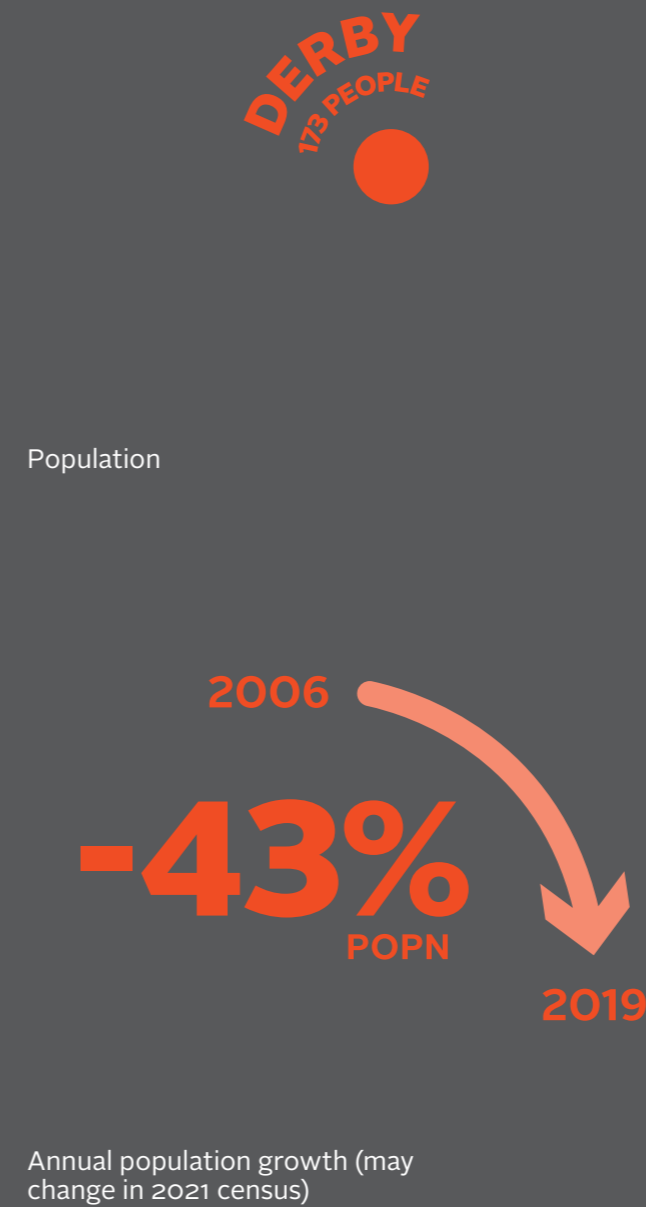


3.6 Derby, Tasmania

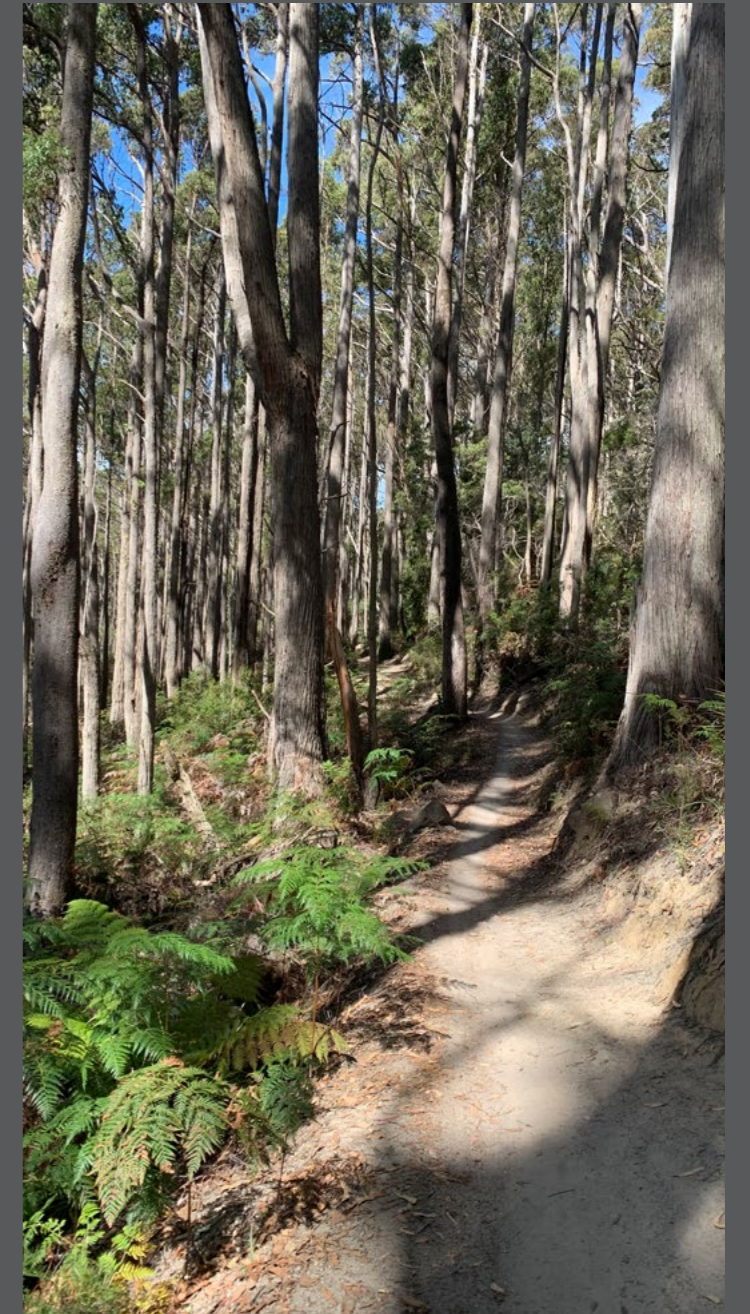
Quick facts about Derby, in north-east Tasmania, a place that has reinvented itself as a tourist destination.

Once a thriving mining town with the richest tin mine in the world, and one of the last remaining wilderness areas, Derby is now home to one of the world's premier mountain bike networks located right here in Tasmania. Encompassing 125km of purpose built mountain bike trails with options to suit all skill levels.

Source: <https://www.ridebluederby.com.au/>
Accessed 1st feb 21



Source: ABS Census data, 2006-2016



Mountain bike trails, Derby
Source: Michael McKeown, 2021



Derby, Tasmania (cont)

Derby is a small village in north east Tasmania. Once a tin mining town, Derby has developed over the past decade as one of Australia's premier mountain bike (MTB) destinations. It is an often-referenced case study of regional renewal.

Mountain biking led transformation

Derby's transformation has been relatively quick and successful, with an initial investment into MTB trails in 2015 being cemented by the successful hosting of a round of the Enduro World Series mountain bike championship in 2017.

The quality of mountain bike trails is highly regarded and is helped by the landscape setting of Derby amongst beautiful temperate forests, steep hillsides close to the village, and cool creeks and rivers.

The range of trails is growing every year, and includes many technical trails of all grades, plus an increasing number of easy trails suitable for non-mountain bikers (e.g. from nearby Brankholme to

Derby), as well as alternative activities (e.g. Lake Derby sauna).

The success of mountain biking is spreading to surrounding areas such as St Helens on the Bay of Fires coast.

The rapid growth in tourism is also stimulating investments in MTB-hire shops, cafes and restaurants, many repurposing the character-laden timber shops and cottages of the main street. Numerous houses in the area have become available for self-catering accommodation (with potential impact on housing costs and availability for residents).

New tourism investments

A wave of new tourist accommodation developments is also occurring (some architecturally designed). It is also possible to camp for free along the river, with showers and amenities provided by the local council who also help sustain the (well-maintained) trails as a free resource for visitors.

A local industry of hire shops and MTB shuttle buses has developed at Derby. Shuttle buses take riders up the mountain to the start of the downhill trails. Several operators provide this service with many options for short, half-day and day trips with Derby as the hub. Cyclists also ride uphill to the trail-heads, use ebikes to climb faster, and share lifts in their own vehicles.

As most people visit for multi-day stays, many people also ride outside business hours when shuttles are not operating (e.g. in early morning and evening). This emphasises the need for a variety of transport options at any Jindabyne MTB centre, whether the primary options be a shuttle bus or cable car or private transport.

Derby's excellent MTB bike trails, landscape setting and safe, family friendly atmosphere have gone a long way to making the village popular with visitors. New residents are arriving, with investments in housing and prices rising. It will be interesting to see what's population is captured in the 2021 census.



Shuttle bus transports visitors and bikes
Source: Michael McKeown, 2021



Shuttle bus transports visitors and bikes
Source: Michael McKeown, 2021



Derby, Tasmania (cont)

Key lessons for Snowy Mountains SAP

- _ Quality of MTB trails attracts visitors.
- _ Quantity of trails including beginner options attracts visitors and return visitors.
- _ Shuttle buses provide easy trail access and a viable business opportunity, but other transport options are just as popular – diversity is key.
- _ MTB stimulated new tourist accommodation options at all prices (including free camping).
- _ MTB stimulated investment in shops and other tourism businesses.
- _ Derby is far from major cities, and this has not detracted from its appeal.



Contemporary accommodation is of high quality
Source: Michael McKeown, 2021



Pump track offers opportunities for beginners / kids
Source: Michael McKeown, 2021



Camping grounds provide for low cost accomodation
Source: Michael McKeown, 2021



Floating sauna
Source: Michael McKeown, 2021



Township positioned on banks of river offers and attractive setting
Source: Michael McKeown, 2021



3.7 Other case studies

Passenger ferry on scenic Lake St Clair demonstrates low-impact tourism and access in a pristine national park.

Fluctuating lake levels can cause headaches for recreational use, but good management, communications and infrastructure can minimise conflicts.



Lake St Clair
Source: Discover Tasmania, 2020

Lake St Clair Eco-tourism + Ferry, Tasmania

- _ Lake St Clair is located in the Cradle Mountain-Lake St Clair National Park in the Central Highlands area of Tasmania.
- _ Australia's highest altitude ferry service takes passengers on a 28 km 30 minute trip from Cynthia Bay via Echo Point to Narcissus Bay and back.
- _ It is at Lake St Clair that Tasmania's most iconic multi-day walk, the Overland Track, comes to an end (Discover Tasmania, 2020). Option to catch the ferry and enjoy a day-hike back along the final leg of the Overland Track.
- _ Lake St Clair visitor centre and resort offering nature-focussed accommodation, or stay in the former hydro-infrastructure at Pumphouse Point hundreds of metres out into the lake.



Ghost Lake
Source: CBC, 2015

Ghost Lake high fluctuating lake, Canada

- _ Ghost Lake is a reservoir located within Western Alberta, Canada.
- _ Large fluctuations in water level due to power generation affect the recreational opportunities and biological productivity of the lake. In addition, the volume of water being released from the lake and Bow River downstream.
- _ Locals and business operators have been highly critical of the Ghost Lake dam operator, TransAlta, in keeping lake levels low as the lake becomes unusable (Alberta Lakes, Department of Biological Sciences, 2017).
- _ The south side boat launch was extended in 2018 to allow better boating access to the lake when water levels are low.



Albury Wodonga Yacht Club
Source: Google, 2020

Lake Hume recreational uses, Victoria/NSW

- _ Lake Hume is a significant water storage on the River Murray. It provides irrigation water, urban water supplies, flood mitigation and recreational benefits to a large region.
- _ The Lake experiences a greater annual fluctuation in storage levels than almost any other large water storage lake in Australia. In some areas, the lake shoreline recedes hundreds of meters with a 1-2 m drop in storage level.
- _ Lake Hume has become an important tourist and recreation location. Local government strategies to combat the varying lake level challenges for tourism and recreation development include promotional activity as a high-quality recreation and tourism destination lake, constructing low-level access extensions to boat ramps and master planning projects to improve foreshore public facilities, reserves and access to the lake (Lake Hume Land and On-water Management Plan, 2007).



Jackson Hole Airport
Source: Jackson Hole Airport, 2020



Roam bus
Source: Roam Transit, 2017



Electric taxi
Source: Zermatt Tourism, 2016

These case studies show how well-known alpine resorts can provide leading public transport and sustainable transport initiatives in alpine and national park destinations.

Jackson Hole Airport, USA

- _ Jackson Hole Airport is located entirely within Grand Teton National Park. It is the only airport in the world to be located within a national Park.
- _ The Jackson Hole Airport is dedicated to becoming an industry leader in environmental stewardship, green building initiatives, and sustainability. In 2011, the airport received a LEED Silver Certification from the U.S. Green Building Council for the Terminal Building Expansion project. In 2019, the Jackson Hole Airport earned the Business Emerald Sustainability Tier certification (BEST) (Jackson Hole Airport, 2020).

Banff hybrid bus, Canada

- _ Banff is a resort town in the province of Alberta, Canada and is located within Banff National Park.
- _ “Roam” hybrid public transport buses operate within Banff with regular services throughout the town and the Bow Valley. The buses are wheelchair friendly and can carry bikes, skis and snowboards.
- _ The township of Banff is approximately a 45 minute drive east of the world famous glacial lake of Lake Louise. Lake Louise is used for ice fishing and ice skating in winter, while the surrounding area offers settings for snowmobiling, dog sledding, snowshoeing and ice climbing. Kayaking and canoeing are popular activities during summer, and a boat launch and rental facility are maintained on the north-eastern shore (Banff and Lake Louise Tourism, 2019).

Zermatt car free town, Switzerland

- _ Zermatt is a famed ski resort and mountaineering town of the Swiss Alps.
- _ The entire town is a combustion-engine car-free zone in hopes to prevent air pollution that could obscure the town's view of the Matterhorn. Almost all vehicles in Zermatt are electric.
- _ Public transport within Zermatt includes small electric buses and taxis. Most visitors reach Zermatt by the rack assisted railway train from the nearby town of Täsch (Zermatt Tourism, 2016).



Whistler Mountain Bike Park
Source: Whistler Blackcomb, 2020



Tongariro Alpine Crossing
Source: Tongariro Alpine Crossing, 2020



Vail village
Source: Vail Resorts, 2017

These case studies showcase high visitation, internationally recognised summer attractions at Whistler and the Tongariro Crossing, NZ. Vail's sustainability agenda is also world-renowned.

Whistler mountain biking, Canada

- _ Whistler is located within British Columbia, Canada and is home to one of the largest ski resorts in North America.
- _ The world-famous Whistler Mountain Bike Park is a population tourist destination within Whistler. The Bike Park caters for all abilities and levels with 70 bike trails that span 80km to choose from. The Bike Park is accessible by chairlift or gondola.
- _ Another key tourist facility of Whistler is the PEAK 2 PEAK Gondola which spans the 4.4km distance between Whistler and Blackcomb mountains (Whistler Blackcomb, 2020), and provides year-round tourism visitation.

Ohakune and the Tongariro Crossing, New Zealand

































- _ Ohakune is a small town in the North Island of New Zealand, situated next to Tongariro National Park.
- _ It is a popular base in winter for skiers using the ski fields of Mount Ruapehu and in summer for travellers hiking the Tongariro Alpine Crossing.
- _ The internationally renowned Tongariro Alpine Crossing is a 19.km one way hiking trail. A 45-minute bus shuttle takes hikers from Ohakune to the start of the trail.
- _ Various water activities are available on the nearby rivers, with jet boating on the Whanganui River and rafting available along the Whanganui, Rangitikei and Tongariro rivers (Visit Ohakune, 2020).

Vail sustainability goals, USA

- _ Vail is a small Colorado ski resort town set within the White River National Forest.
- _ Vail is a global leader in sustainable mountain tourism. In 2017 the ski resort announced several sustainability goals to measure and eliminate their carbon footprint. Their commitments included zero net emissions by 2030, zero waste to landfill by 2030 and zero operating impact on forests and habitat.
- _ The company Vail Resorts has acquired several ski resorts around the globe including Falls Creek and Hotham and Perisher ski resorts in Australia (Vail Resorts, 2020).



3.8 Lessons from Australian + International cases

	Queenstown 	Wanaka 	Aspen 	Lake Placid 	Bright 	Other
Year-round Destination						
Community, Liveability + Affordability						
Access + Transport						
Public Realm						
Environment + Planning						
Successes	 <ul style="list-style-type: none"> _ Fast growing, year-round destination with diverse attractions and events. _ Big mountains and lakes _ Excellent national and international air access. _ Reputation as a safe and friendly place. _ Event coordination. 	<ul style="list-style-type: none"> _ Year-round destination with diverse attractions and events. _ Liveability (compared to Queenstown) and strong community feel. _ World-class events. _ Waterfront master plan. 	<ul style="list-style-type: none"> _ Year round premium tourism and events. _ Transport options including car and bike share programs. _ 'The Aspen Idea' identity, wellness, lifestyle, sustainability. _ Strong workforce development for tourism industry. _ Urban growth boundary. 	<ul style="list-style-type: none"> _ Olympic heritage and alpine sports training centre. _ Attractive lakeside setting and small town character. _ Free public trolley and shuttle services. _ Environmentally sensitive. 	<ul style="list-style-type: none"> _ Village feel, food and wine reputation. _ Attracts almost all sectors of the tourism market, from families and elderly tour groups, to adventure and extreme sport enthusiasts. _ Close to two ski resorts, and other outdoor destinations. _ Leafy, pedestrian scale streets and green spaces. 	<ul style="list-style-type: none"> _ Lake St Clair ferry and walks. _ Lake Hume recreation and fluctuation. _ Banff, Zermatt, Jackson Hole Airport sustainable transport. _ Whistler and Tongariro Crossing, iconic MTB and hikes. _ Vail sustainability brand.
Issues	 <ul style="list-style-type: none"> _ Fast-growth affecting resident amenity, lifestyle and housing affordability. _ Car-centric transport system with capacity exceeded. _ Poor historic planning in a highly constrained environment. _ Airport encroachment. 	<ul style="list-style-type: none"> _ Housing affordability. _ Car-based transport. Roads a barrier. Poor public, active transport, arrival experience. _ No direct air access. 	<ul style="list-style-type: none"> _ Extremely high property values and cost of living. _ Traffic congestion at peak periods. 	<ul style="list-style-type: none"> _ Housing affordability. _ Traffic congestion at peak periods. 	<ul style="list-style-type: none"> _ Perceived car parking issues. 	



This section highlights some of the engagement conducted with key stakeholders to inform the Structure Plan.

4. Engagement + EbDs

- 4.1 Tourism stakeholders
- 4.2 Spotlight on Jindabyne Series
- 4.3 EbD workshops
- 4.4 Snowy Mountains SAP vision community feedback report
- 4.5 Strategic Framework workshops overview



4.1 Early engagement with tourism stakeholders (July 2020)

Snapshots of interviews with alpine resort management, NPWS and DPIE highlight key issues, especially safe and sufficient access and parking at Perisher Valley and other resorts. Practical constraints including bushfire risk, ageing infrastructure and biodiversity values are also identified.

Summer activation with a diversity of adventure and nature-based activities is highlighted as a key opportunity by many. Winter expansion and new terrain is desirable... or is it a distant dream?

Perisher



Access + Parking constraints – capacity exceeded on busy weekends.

- _ 1400 staff at peak season, most carpool and use skitube on peak days.
- _ Skitube – good but expensive to run and maintain.

Summer activities at Perisher _ feasibility not yet demonstrated.

- _ Looking for SAP growth forecasts, parking and transport reform, governance reform (e.g. **head lease** at Perisher).
- _ 2001 master plan including 800 bed Perisher Village on car park _ **not financially viable.**
- _ Constraints included emphasis on already disturbed sites.

No major development of resort since 1990s _ Should SAP look at more or bigger ski resorts?

- _ Emphasis on sustainability.

Thredbo



Thredbo has head lease for resort, then 960 sub lessees, provides municipal services.

- _ Winter and summer business – open summer for 40 years (e.g. tourist rides, MTB)
- _ 30% annual growth MTB, more trails, more visits, longer stays.

Challenges around capacity – 2019 peak capacity on 18 days, turning away cars.

- _ Busiest days in summer parking now at capacity.
- _ Environmental challenges, beds and capacity, numerous nights at full capacity (mostly winter).

Sees ‘Thredbo as Alpine adventure capital of Australia’...aware of climate change threats...future expansion of domestic markets, alternative to beach holidays.

- _ Mt Kosciuszko - people will do this one time.
- _ Need **variety of activities**, need more options to attract people.
- _ Need 5 star accommodation/hotel? more restaurant, retail.
- _ Climate of valley floor amenable to golf, tennis, hiking etc out of true alpine area, enables many things to do over a week stay.

- _ Activities should not be contrary to environmental objectives. This is key to visitors.

A lot of development is replacement of infrastructure, some new bed development.

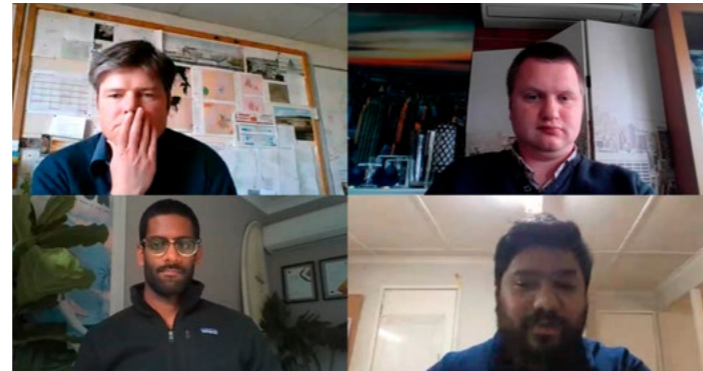
- _ Hosts biggest MTB event in southern hemisphere.
- _ 7000 skiers on peak day...could stretch to 9000...will reach this capacity based on current growth...**might need expansion of leases to get more terrain.**
- _ 20% staff live thredbo, 80% in jindy... Thredbo manages accomm...uses car pooling...1100 people.



Charlotte Pass



Kosciuszko Tourist Park



Sponars Chalet



Ski Rider Hotel



- _ **'An on- snow experience like no other'**, 1765m, only oversnow resort, ski-in, ski-out
- _ Historic Kosciuszko Chalet Hotel, built 1938, \$2m upgrade – better accommodation, dining
- _ **Will open year round and expand activities** e.g. Snowy Mountains Walking Company
- _ **Unused lease area** – opportunities
- _ Issues – **access in winter, no overnight parking in Perisher, guests must use skitube (ticket structure expensive)**, Perisher are competitor but have influence on Charlotte Pass access. Also **summer parking issues**.
- _ Access options – designated car park at Perisher, lower car park (Sawpit Ck) 200+
- _ **Thredbo valley chairlift** was designed poorly and in the wind, consider again?
- _ 100 of 115 staff housed on snow
- _ Could be **some winter growth** (oversnow, STP capacity, \$10m master plan with new buildings).
- _ Year-round camp and cabins, caravans, RV.
- _ Ski, bushwalk, fishing.
- _ 60+ years established, heritage value.

- _ 75% business in 8-10 weeks, **would like more summer trade, school groups**.
- _ Lease limits bed numbers – need an increase for evening people across year.
- _ Close to education centre.
- _ No internet.
- _ Thredbo getting lots of summer traffic.
- _ Many winter accommodation requests cannot be met.
- _ **If Perisher did more summer activity would benefit tourist park.**
- _ Staffing increased last few years from say 4 to 6 staff.
- _ 35 rooms, 116 bed, restaurant and bar, pool, movie room, ski shop, built 1938, 3 floors (no lift), **not so modern**.

Source: Destination NSW, 2020

- _ **Only open 9 weeks/year for ski season, keen to see summer growth and activities in region.**
- _ No mobile/internet.
- _ **Winter road access** major constraint.
- _ Family business for decades, 339 beds (incl staff).
- _ 2025 lease expiry a constraint on investment.

Source: Tourism Snowy Mountains, 2019

- _ **Own STP (old, settlement pond to be pumped out regularly), water supply.**
- _ Low budget, no TV, clean and warm,
- _ Many school groups and coaches (business owns coaches for schools).
- _ Family self-drive, shuttle bus to perisher
- _ Not opening this winter due to coronavirus. **Not open summers (would consider if regular groups etc).**
- _ 6 staff office, 55 staff winter (live on site)
- _ **Weekend traffic terrible up to Perisher – use shuttle bus.**

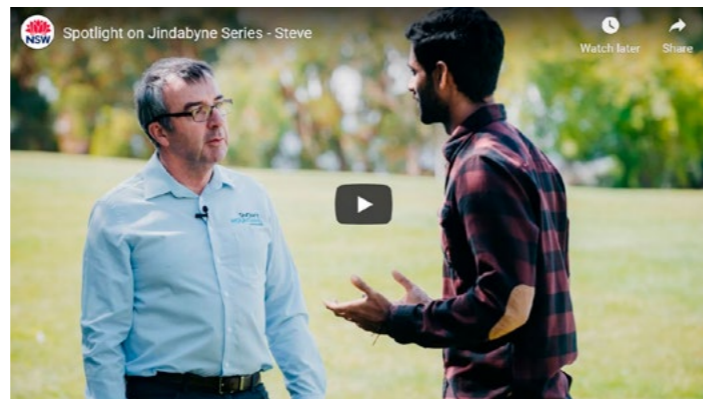


4.2 Spotlight on Jindabyne series

The 'Spotlight on Jindabyne series' was created by the NSW Government in 2019 to learn a bit more about the town and its people and what their future hopes for the Go Jindabyne Master Plan were.



Jo Larkin
Mountain bike instructor



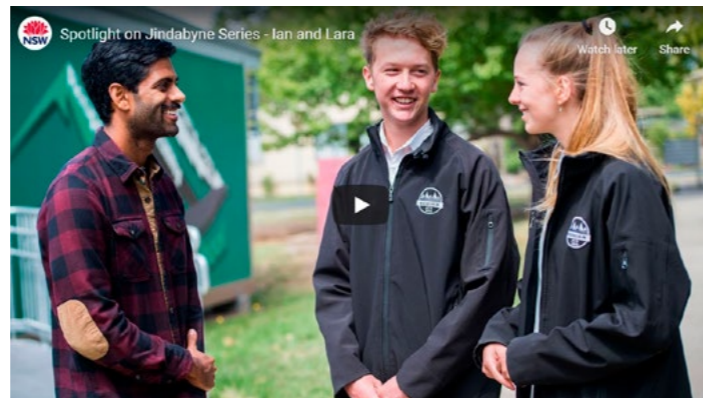
Steve Cuff
Editor of the Snowy Mountains Magazine



Iris White
Chair of the Southern Kosciusko Aboriginal Working Group



Helen Blackmore-Lee
Coordinator of the Snowy Mountains Neighbourhood Centre



Ian Grant and Lara Worsley
School Captains of the Jindabyne Central School



Manuela Berchtold
Winter Olympian Womens Moguls, Business Owner of High Country Fitness and Snow Fitness

Source: NSW DPIE

Key community member desires for the Snowy Mountains SAP:

- _ Major event destination
- _ Eco-tourism
- _ Aged care facility
- _ Multi-purpose facility - space for arts, cultural activities and social gatherings
- _ Lake infrastructure
- _ Town square
- _ Elevate parking issues
- _ Staff housing during peak tourist seasons
- _ Year-round access to public transport
- _ Winter bus transport to resorts
- _ School precinct - separate primary and high school
- _ Sustainable and positive township growth for the locals
- _ Bike trails
- _ Cultural centre
- _ Ways to reflect Monero Ngarigo culture
- _ Return to Country
- _ Large event space and concert space at lake

4.3 Enquiry by Design Workshops (October - December 2020)

Enquiry by Design is a highly interactive process of co-design where all stakeholders participate and contribute ‘live’ to the exploration of site issues, and the sharing of ideas and design solutions and options. A series of multi-day Enquiry by Design workshops were held for the Snowy Mountains SAP master planning, and formed an important input to the Structure Planning process.

Jindabyne EbD (26th - 29th October 2020)

The primary aim of the Jindabyne EbD was to explore and develop options for town growth, tourism and public realm improvements for the town of Jindabyne and its surrounding areas as part of the Snowy Mountains SAP.

Other objectives included:

- _ vision + sustainability testing of all options
- _ targeted stakeholder input
- _ client group + team collaboration.

Day 1 _ Introduction, Strategic framework review + Jindabyne structure planning

The first afternoon of the EbD was an opportunity to review key master plan strategies and the ‘design brief’ for the workshop. Design investigations started with the bigger picture, focussing on town growth options for Jindabyne.

Day 2 _ Focus on Jindabyne town centre + tourism sites

Day 2 focused on Jindabyne town centre and a small number of tourism opportunity sites around Jindabyne. Groups were asked to explore options

for town centre development, concepts for infill sites, and public realm designs for key streets + public spaces.

Supporting strategies for planning, transport, environment etc. were also commenced in parallel to design outputs.

Day 3 _ Lakefront open space, Supporting strategies, Community Advisory Group + neighbourhood structure plans

Day 3 included landscape design investigations along the Lake Jindabyne foreshore, developing an overall landscape strategy, as well as concepts for nodes within the open space. Town centre concepts - along with greenfield and neighbourhood structure plans - from previous days were further developed.

A Community Advisory Group presentation in the evening provided broader feedback.

Day 4 _ Final Presentation

The final day included a major presentation of design and strategy outcomes, delivered online as well as in-room, and with councillors from Snowy Monaro Regional Council in attendance.





Jindabyne Sport + Education Precinct EbD Workshop (29th - 30th October 2020)

The aim of the Jindabyne Sport + Education EbD Workshop was to develop options for the master planning and integration of the Sport + Education Precinct, including options for the town's new schools.

Day 1_ Strategic Framework review + Preliminary master plan options

After a briefing on the workshop objectives, sport and education planning needs and context, and the site conditions, attendees undertook a review of the strategic framework for the precinct.

Then six small groups used hands-on planning techniques to explore site layout options, which were later drawn up and presented.

Six preliminary options were developed and presented to test strategic options for the location of schools and sporting infrastructure, connectivity and environmental opportunities.

Day 2 _ Master Plan refinement @ 1:1000 focusing on key precinct opportunities

Day 2 allowed refinement of concepts at a more detailed scale for key uses and precincts such as education, community sports, and high performance sports, with options.

Supporting strategies including sustainability, infrastructure and transport were also addressed at a high level. Copies of final presentation materials and brief comments are provided here.

Emphasising the links between the Sport + Recreation Centre and 'on-mountain' facilities, a focus group was held to discuss needs + strategies for on-mountain sports development.

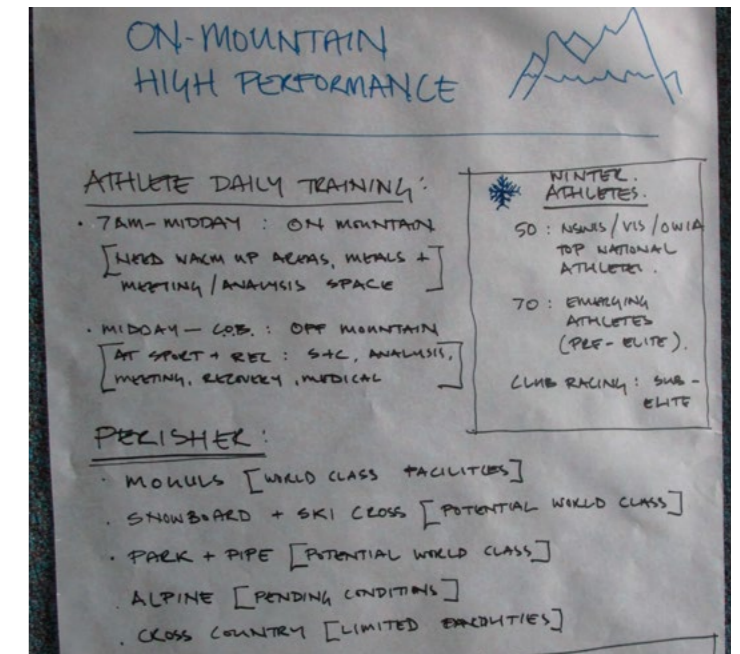
Two education planning options were explored further on Day 2, starting with 'Education North'. The second education option located schools further south along Barry Way, with a community sports precinct on Crown Land to the north.



Introductory presentations



Prepared school + sports templates were used for rapid master planning



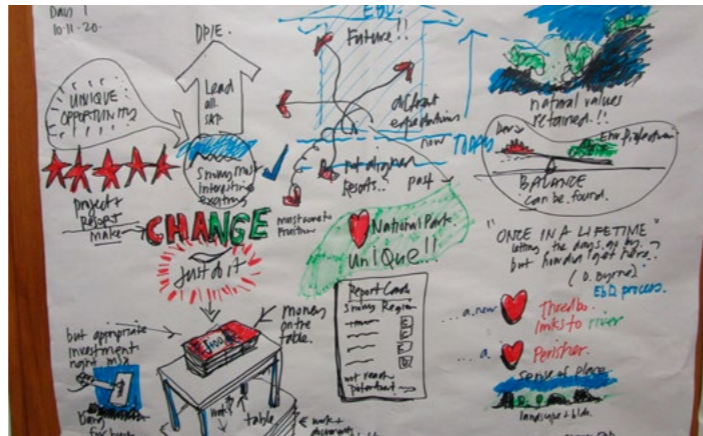
Focus group discussion notes



'Education North' option master planning



Alpine Resorts + Tourism Destinations EbD Workshop (10th - 12th November 2020)



The aim of the Alpine Resorts + Tourism Destinations EbD Workshop was to prepare structure plans and concept designs for tourism growth opportunities at key locations both within and outside Kosciuszko National Park.

Other objectives included:

- _ Carrying Capacity + EMS model refinement
- _ Transport, infrastructure, environmental and bushfire planning
- _ Statutory planning development
- _ Targeted stakeholder input to structure plans and SAP strategy.

Day 1 _ Introduction + Strategic planning workshop with key resorts

On the first morning of the EbD stakeholders from the key alpine resorts within Kosciuszko National Park joined the group for a strategic planning workshop and review of emerging strategic directions for the SAP.

Focused design workshops in the afternoon addressed individual resort areas with one-on-one input from the stakeholders.

Day 2 _ Focus on Thredbo + tourism opportunities inside and outside of Kosciuszko National Park

Thredbo stakeholders rejoined the EbD for a Thredbo Village briefing and concept development for a number of locations.

Nature-based tourism opportunities at a number of sites within Kosciuszko National Park were also developed, as was a tourism resort concept on land west of Lake Jindabyne.

Supporting strategies for carrying capacity, planning, transport, environment etc. were also commenced in parallel to design outputs.

Day 3 _ Structure plan, strategy refinement + final presentation and feedback

Day 3 allowed for concept refinement and further development of key workshop strategies into a final presentation in the afternoon.



Integration Workshop (8th December 2020)

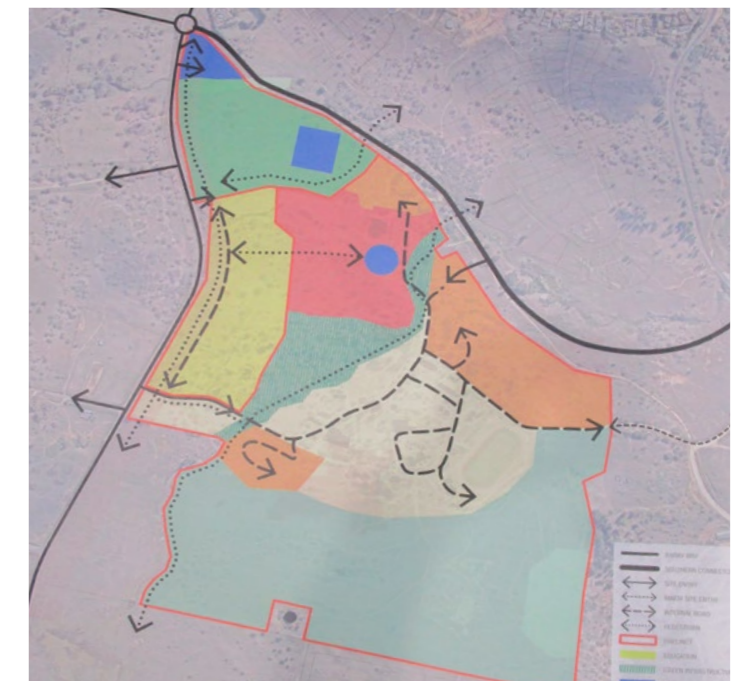
The aim of the Integration Workshop was to present, review and refine preliminary structure plans, transport concepts and public realm concept.

Other objectives included:

- _ Review, refine and confirm preliminary structure plans for all growth areas of SAP
- _ Comparison of growth yields in structure plans (dwelling, tourism accommodation and seasonal workers accommodation, industry and commercial land) with visitation and population projections
- _ Test draft public space concept designs for Jindabyne and key streets
- _ Update on key strategies especially transport, biodiversity and heritage fieldwork, infrastructure, implementation projects
- _ Continue excellent team and agency collaboration.



Presentations and small group discussions



Sport and Education Precinct Structure Plan



4.4 Snowy Mountains SAP vision community feedback report

In July/August 2020 DPIE asked the community for feedback on the draft Snowy Mountains SAP vision and aspirations for the future of the Snowy Mountains to inform the development of the draft master plan.

The feedback was categorised into key aspirational themes that inform the development of the draft SAP master plan. The following is an overview (by DPIE) of feedback received.

Adventure + Ecotourism

- _ Overall strong support was received for new adventure and eco-tourism activities, with a focus on indoor and outdoor activities outside the Kosciuszko National Park.
- _ The community felt that precinct planning should assist appropriate tourism investments throughout the year.
- _ Other ideas included; bike and skate park, paragliding, water sports on the lake and indoor adventure hub.

Sport + Education

- _ Community responses showed clear support for a broadening of sport and recreation activities and facilities available in the area.
- _ There was support for enabling larger scale Australian sporting events and training programs to be hosted in the area.

- _ Calls were made to locate education facilities nearer to the Jindabyne Sport and Rec site.
- _ There was also a clear need for upgrades to existing ovals and facilities at Jindabyne, the Sport and Rec facility, the Station and Bungarra Alpine Centre.
- _ Other ideas included; a world class education and resaearch hub, providing educational choices and specialised higher education, focus on sporting activities for all seasons, and a world class destination for mountain bike tourism.

Sustainability + Wellness

- _ There were concerns raised toward visitor uses that are not compatible with the ethos of a National Park, with the protection of Kosciuszko National Park's National Heritage status remaining of utmost importance to conserve the special natural value of the mountains and retain tourism value.
- _ Support was shown for sustainable development that is sensitive to the area.
- _ Mixed reactions were found for more parking, accommodation and improving the infrastructure at the ski resorts and in the National Park, and the role of National Parks and Wildlife services.

- _ Other ideas included; small scale renewable energy projects, solar powered public transport, waste minimisation projects, wellness hub at West Jindabyne, dog parks, protection and preservation of the environment by developing facilities in the right (least sensitive) locations.



Feedback statistics



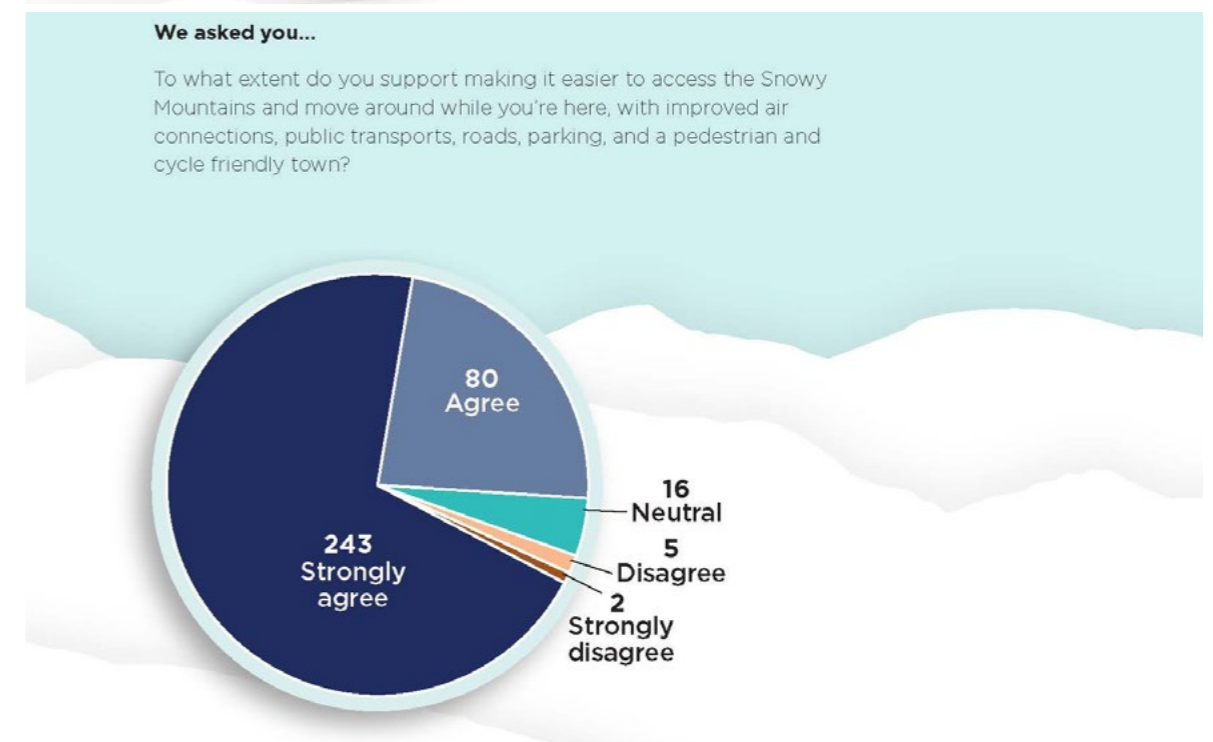
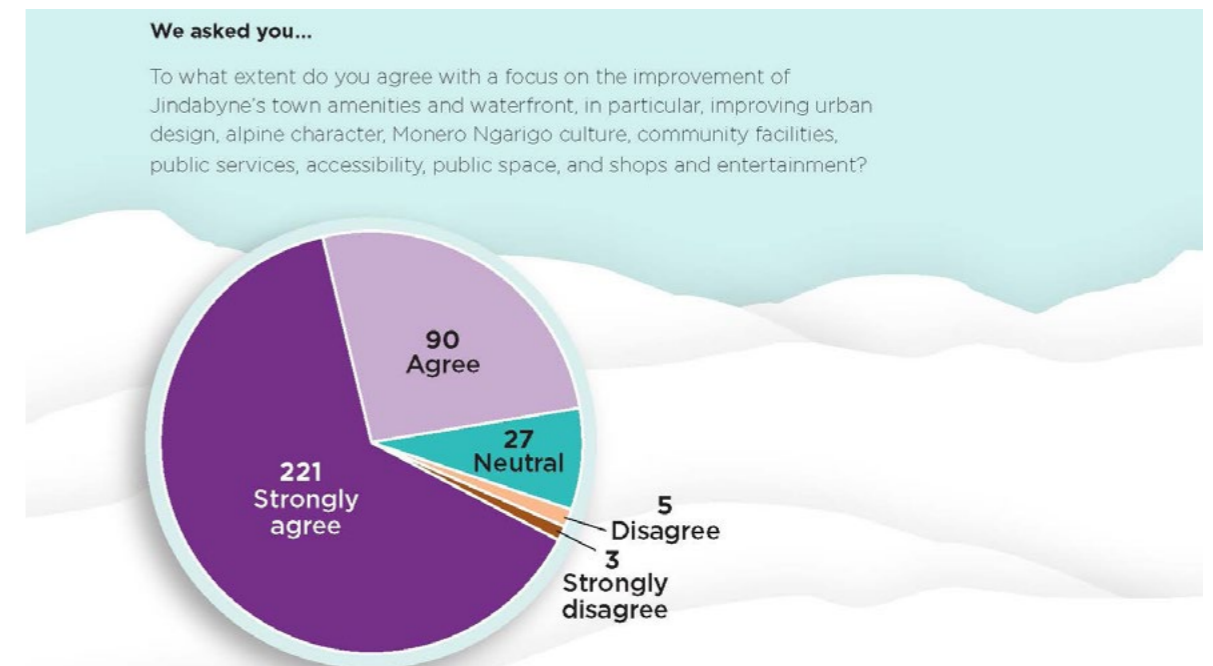
cont.

Design + Culture

- _ Strong support was received to increase the arts and culture sector that supports year-round tourism.
- _ In particular, there were many calls for a visual arts programme in collaboration with the Australian Arts Council, Regional Arts/Create NSW and a local university or TAFE.
- _ The community also felt that Aboriginal names for place should be incorporated in the region and to ensure there is adequate celebration of Monero Ngarigo culture.
- _ Other ideas included; a community library, art gallery, heritage centre, allowing for bespoke galleries, creative spaces, food / beverage and local produce outlets, social amenities (facilities and essential services) in the right areas, more housing choices and diversity including aged care facilities, better use / improved access of the lake front, community focus / more community services.

Infrastructure + Connections

- _ Many felt that there should have been an aspiration on supporting more jobs and building a strong, diversified economy.
- _ The community also felt there could be better connection between Cooma airport and the resorts, including the wider area, which would help to reduce traffic congestion and parking, as well as better public transport and road safety measures.
- _ Mixed reactions were received regarding a bypass and an airport at Jindabyne.
- _ Other ideas included; improved digital connectivity, connect isolated areas for hiking, fishing and biking, dedicated bike lane from Jindabyne along Barry Way to the Station, create a world class mountain bike park, better pedestrian linkages of the two town centres, park and ride facilities.

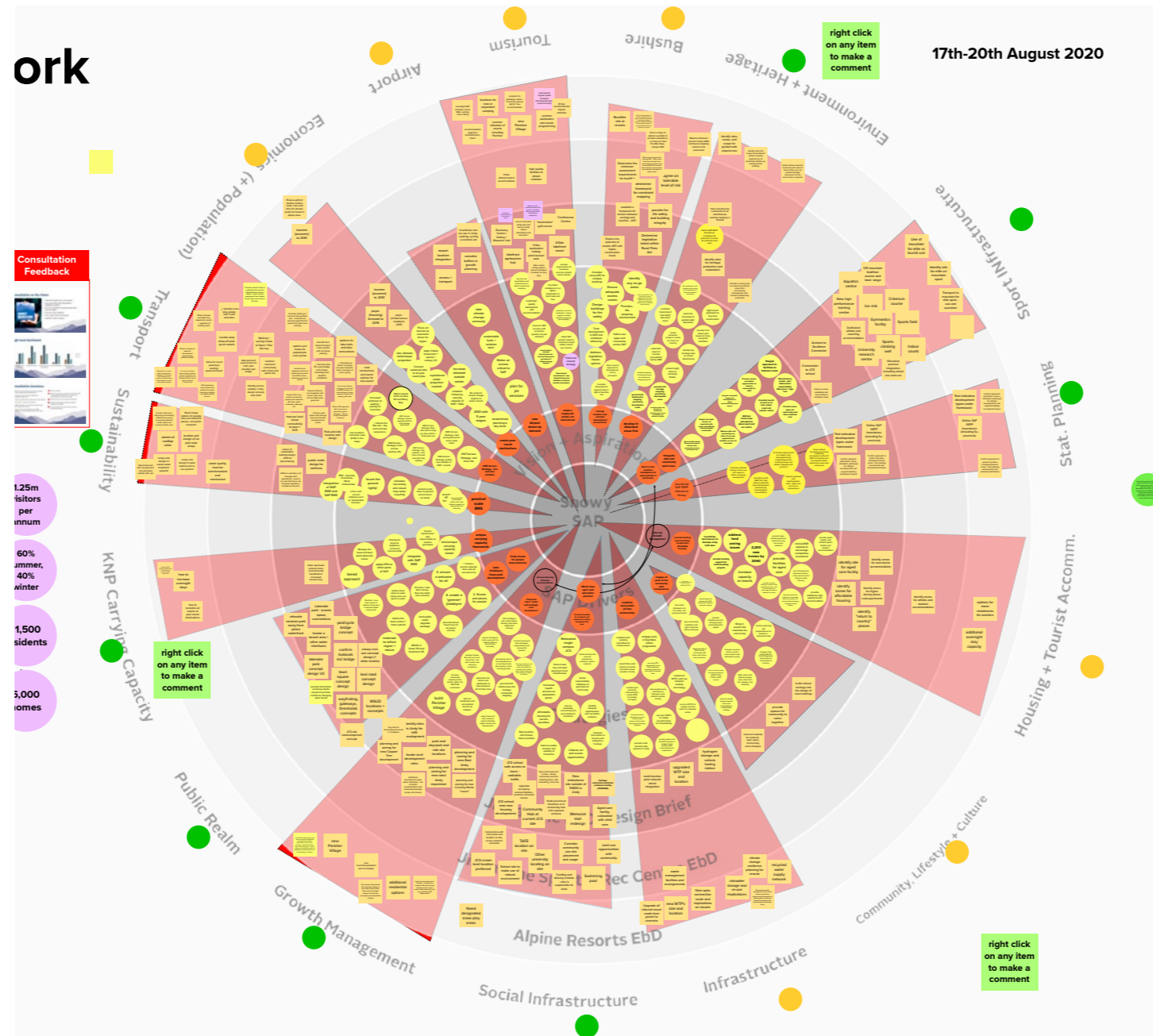


Detailed feedback statistics

4.5 Strategic Framework workshops overview

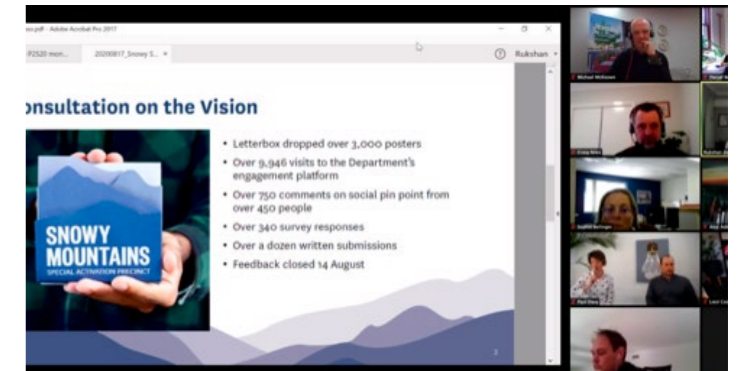
17th to 20th August 2020 (+ four early workshops in July and August)

An online workshop series was held to develop the Strategic Framework. Topic-based workshops were attended by government stakeholders and project teams. About 100 people participated in the main workshop series over 16 sessions in August.

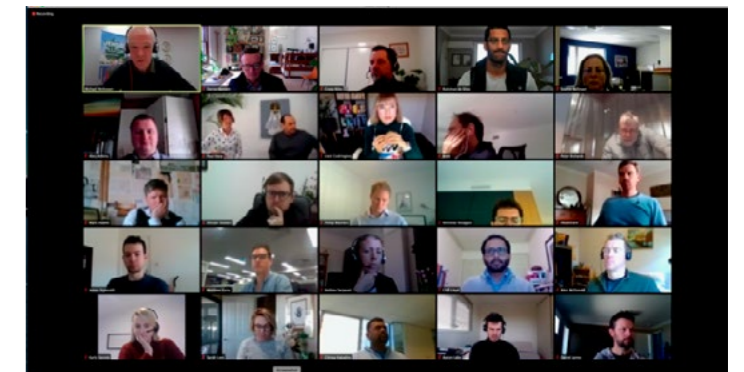


MURAL online workspaces were used to allow small groups to collaborate and record feedback on workshop topics. An overall strategic framework diagram was also prepared during the week of workshops. This diagram captures the breadth and complexity of issues under consideration, but also shows the key areas of focus and highlights some areas with the emphasis of the Enquiry by Design workshops are likely to focus.

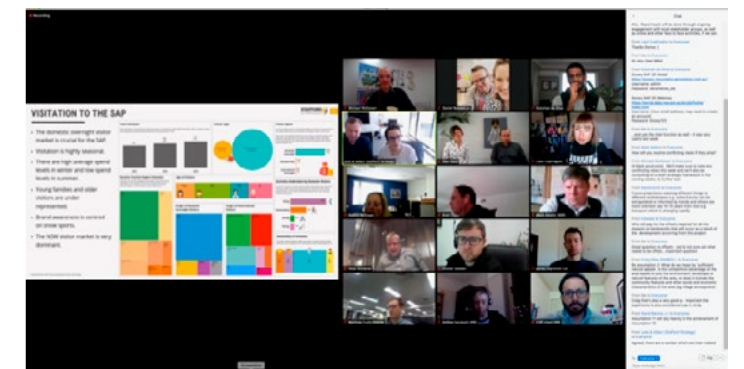
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Early briefings included vision consultation outcomes



Most workshop sessions had 25 to 35 attendees



Online presentations with live chat helped share background information and prompt discussion

The strategic policy + current planning framework for the SAP area is summarised in this section.

Jindabyne's natural environment continues to support year-round tourism and sustainable activities, particularly by enhancing access to Lake Jindabyne and activating its waterfront

Jindabyne is an accessible place for people of all ages and abilities, with opportunities for healthcare and aged care

Jindabyne has accessible and modern community, recreation and education facilities, including new opportunities for tertiary education

Jindabyne's built form is respectful, sustainable and enhances the town's alpine and country town character

5. Strategic context

- 5.1 Strategic planning + policy
- 5.2 Existing planning framework
- 5.3 Go Jindabyne Master Plan
- 5.4 Perisher Range Resorts Master Plan
- 5.5 Creel Bay Master Plan
- 5.6 Snowy River DCP
- 5.7 Draft Alpine Resorts DCP
- 5.8 Strategic context _ Key issues + opportunities



5.1 Strategic planning + policy context

State plans and policies

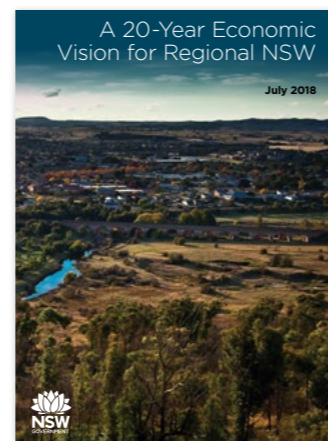
NSW is a large state with a diversity of strategic plans and planning policies of relevance to the Snowy Mountains SAP.

A review of this policy library highlights strong policy alignment around boosting tourism, local economic development, and opportunities for regional and global connections.



NSW Regional Development Framework (2017)

- The framework recognises that inland regions have a strong need for projects and **government investments to switch on the local economy and support emerging alternative industries.**
- **Upgrades to the Snowy Mountains regional airport** is identified as a key driver for regional development.



20 Year Economic Vision – Regional NSW (2018)

- Vision is to accelerate economic growth in key sectors or **'engine industries'**, such as tourism, residential care, advanced manufacturing and renewable energy.
- **Improving connectivity across inland regional areas to capital cities** will help to boost business activity, deepen labour force pools and improve the overall pull of Inland regions as a destination for people and business.
- **Regions to specialise in key sectors based on each region's competitive advantages** and operate in a business-friendly regulatory environment.



Investment Attraction Package for Regional NSW (2018)

- Aims to attract jobs and investment to regional NSW through financial incentives.
- **Grants and interest-free loans available for businesses creating or retaining jobs in special activation precincts** and operating in eligible industries such as tourism and aged care facilities.
- Aligns with and supports application of SAP for this location.



Future Transport (2056)

- Proposes several transport initiatives to provide the NSW region with greater choice in accessible services, increase road safety and create a stronger economy.
- **Future connections in regional NSW will focus on a 'hub and spoke' network model**; connecting Jindabyne to Cooma and Cooma to Canberra and on to wider NSW.
- **Snowy Mountains Highway improvements** is an initiative under investigation.



State Plan - NSW

- Aims to drive economic growth in regional NSW
- Identifies the target to increase tourism in NSW with **double the visitor expenditure by 2020** though the Visitor Economy Action Plan and establishment of Destination NSW with increased funding
- Recognises NSW's potential as a global tourism and event destination to support economic growth and create a more vibrant place to live.



DRAFT Strategic Plan for Crown Land (2020)

- Outlines a proposed vision and strategy for management of Crown land in NSW to facilitate growth, productivity and sustainability.
- Priorities of the plan over the next 10 years include enabling jobs growth, commercial opportunities and sustainable economic progress in regional NSW.
- Working with Aboriginal communities to realise the potential of their land rights is another outcome of the plan.



State plans and policies

Design quality is of increasing focus in NSW planning policy, with the recent 'Designing with Country' and 'Urban Design for Regional NSW' documents of particular significance to the Snowy Mountains SAP.



Designing with Country - Discussion Paper (GANSW, 2020)

- _ Explores a series of questions and issues that Government Architect NSW (GANSW) has identified through their work in Aboriginal understanding of landscape and environment.
- _ Seeks to inform a set of **Cultural Design Principles** and a framework to apply to all built environment projects delivered by government
- _ In the Aboriginal sense of the word, Country

relates to the nation or cultural group and land that they/we belong to, yearn for, find healing from and will return to.

- _ Three essential elements of designing with Country; nature, people and design. An Eco-centric approach to design and planning processes aligns with Aboriginal world views.

Designing with Country is not possible without engaging with and, more importantly, being guided by Aboriginal community and recognised knowledge holders.



Urban Design for Regional NSW (2020)

- _ Addresses an identified urban design resource gap in regional NSW, recognising the positive impact of good quality design on regional communities, and the need for targeted practical assistance.

Sets 7 urban design strategies for regional NSW:

1. *Engage with the history and culture of places*
2. *Integrate with the natural environment and landscape*



3. Revitalise main streets and town centres

4. Prioritise connectivity, walkability, and cycling opportunities

5. Balance urban growth

6. Increase options for diverse and healthy living

7. Respond to climatic conditions and their impacts.

- _ Identifies several challenges for urban design in the South East and Tablelands Region:

_ Connectivity over large distances between settlements

_ Steep alpine topography

_ Managing natural hazards including bushfire

Balancing the demand for new urban areas and the provision of infrastructure and utilities with protecting and enhancing native vegetation and sensitive natural environments

Population peaks in holiday periods place increased demand on housing and infrastructure.



Regional plans and policies



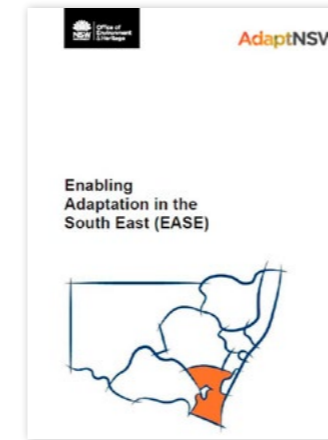
Regional Sports & Active Recreation Plan for South East & Tablelands

- _ Represents the beginning of a collaborative approach across the region to the planning and delivery of sport and active recreation.
- _ Aims to **continue development of the Bundian Way** as a cultural walking trail linking Snowy Mountains with Eden.
- _ Proposes to optimise and modernise the Jindabyne Sport and Recreation Centre as a **Centre of Excellence for snow and adventure sports**
- _ Seeks to showcase the region through sports tourism.



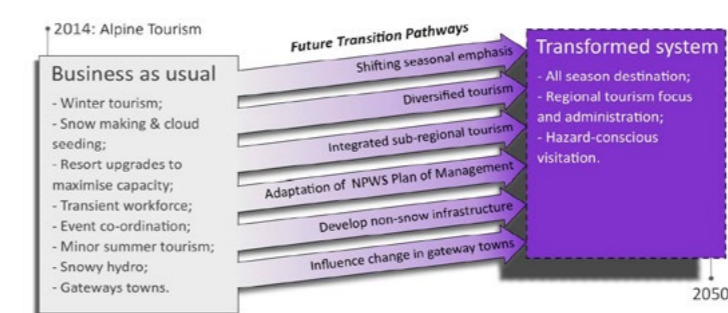
South East & Tablelands Regional Plan (2036)

- _ Vision to develop the Snowy Mountains into **Australia's premier year-round alpine destination**
- _ Action is called to develop a Visitor Economy Strategy for the Snowy Mountains to identify investment opportunities.
- _ Action is called to investigate opportunities for **improved access to the Snowy Mountains through flexible transport options, improved connections through existing transport modes, and air travel.**



Enabling Adaptation in the South East Report (2017)

- _ Identifies regional climate vulnerabilities and develops workable solutions that minimise the impacts of climate change on local communities and build resilience to future extreme events and hazards.
- _ **The priority climate change adaptation pathways to transform the NSW alpine tourism region are to broaden tourism opportunities, business opportunities and investigating**



Transformation of the alpine tourism sector for climate change adaptation

Source: NSW DPIE

synergies between national park management and regional prospects.

- _ A transformed alpine tourism region would comprise:
 - _ an all season (snow-independent) destination
 - _ tourism by 2050 characterised by hazard-conscious visitation
 - _ tourism options administered, promoted and integrated at a regional scale

- _ the unique features of the region, such as the sensitive endemic species of the alpine zone, are conserved and protected from human-use impacts.



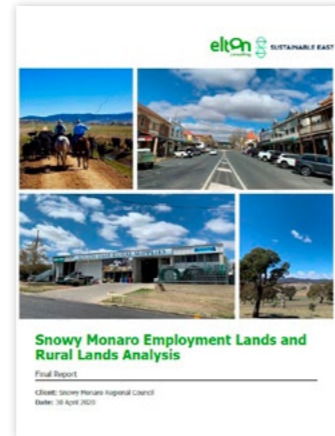
Local plans and policies

Existing local policies and the community-led 'Jindabyne Action Plan' provide many insights and strategies that fit well with the draft Snowy Mountains SAP vision.



Snowy Monaro Regional Council Destination Management Plan (2019)

- The vision is to make the Snowy Mountains the **best nature adventure destination in Australia**
- 15 'game changer' strategic priorities proposed to grow the visitor economy of the Snowy Monaro region. These include **developing a trails master plan** for the region and **boosting nature-based and adventure experiences**.



Snowy Monaro Employment Lands and Rural Lands Analysis (2020)

- Identifies various recommendations to improve outcomes for the Snowy Monaro employment and rural lands.
- Recommendations include the **development of commercial premises in Jindabyne and promoting short-term workspaces alongside tourism-related marketing** and increasing the minimum lot size for the RU1 zoned land.



Snowy Monaro Community Strategic Plan (2040)

- Establishes the vision for Snowy Monaro focussed on four key themes of **'community, economy, environment and leadership'**.
- Seeks to provide **accessible residential aged care services** to residents across the region.
- Aims to foster and support **adaptive, sustainable industries**.
- Looks to further promote and develop the region's **visitor accommodation, products and recreational infrastructure**.



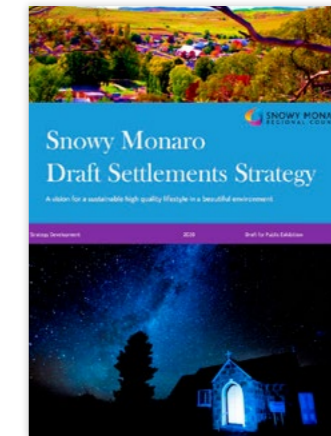
Snowy Monaro Regional Economic Development Strategy (2018-2022)

- Articulates a framework around strengths in tourism, energy generation, farming, forestry and manufacturing.
- Actions proposed include developing and implementing a region wide **Year-Round Tourism Strategy** with candidate projects such as **upgrading the Jindabyne Airport, creating mountain bike trails and further developing the Bundian Way Walking Track**.



Snowy River Shire Council Jindabyne Action Plan (2030)

- Actions to help Jindabyne become a sustainable town to live and visit and to realise its potential over the next 20 years
- Strategies include **improving connectivity, accessibility and activation of the township; capitalising on natural and outdoor assets and the outdoor recreation industry; and strengthening the role of Jindabyne in the region as both a tourist centre and business centre**.



Snowy Monaro Regional Council DRAFT Rural Settlement Strategy (2020)

- Provides a strategic land use planning framework for all towns and villages across the Snowy Monaro.
- It seeks to concentrate development around **5 urban areas in the region**, Cooma, Jindabyne, Bombala, Berridale and Michelago.
- Vision for the Strategy is: **By 2040 the Snowy Monaro will be a region of five key growing towns and many villages all of which will have**

their own distinct character reflected in their diverse landscape settings, architecture, community and recreation facilities and main streets.

- Provides strategic direction for Jindabyne to inform a Snowy Monaro Local Environment Plan.
- Key points from the community engagement phase were **the need to protect the rural landscape of the area, and to protect agricultural land**.
- Recommends that **Council work closely with the NSW Government on preparing and implementing the Snowy Mountains SAP Masterplan**.



Local plans and policies



Snowy Monaro Local Strategic Planning Statement (2020)

- _ Sets a 20 year land use vision for a **sustainable high quality lifestyle in a beautiful environment.**
- _ The vision can be achieved by implementing **12 core planning priorities**, such as supporting the development of the **Snowy Mountains as Australia's premier year-round alpine destination.**

- _ The Local Strategic Planning Statement (LSPS) **sets short, medium and long term actions to deliver the priorities and establishes a framework to measure achievements.**
- _ Key actions include: Council will implement **planning controls that influence the form and scale of permissible development in rural areas**, and Council will identify issues and changes that are required to **planning to enable the growth and diversification in tourism development.**



Snowy Monaro Draft Rural Land Use Strategy (2020)

- _ Guides rural land use planning **over the next 20 years.**
- _ It provides a framework to **guide growth and development within the rural lands of the Snowy Monaro Region** to ensure the Snowy Monaro's economy and environment are protected.
- _ The Strategy works to **balance the interests of agriculture and tourism**, ensuring that both can operate without significant impacts on the other.

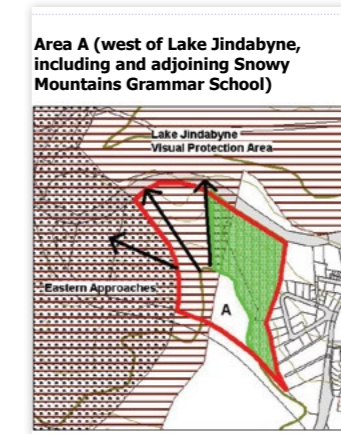
- _ Some of the key recommendations of this Strategy include; **land zoning to better reflect the landscape and appropriate minimum lot sizes; protection of land with high environmental values, and review and revise the permissible uses within rural, environmental, zones and special purpose zones for a comprehensive LEP.**



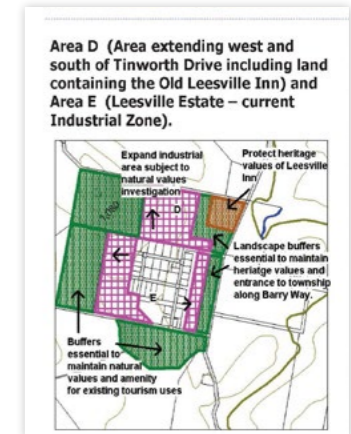
Snowy River Shire Council - Jindabyne Growth Structure Plan (2007)

- _ Identifies broad areas to accommodate the growth of Jindabyne over the next 20 years.
- _ Focuses on providing new areas for residential and industrial uses.
- _ The project area contains **Jindabyne and its outlying communities and villages; Tyrolean Village, East Jindabyne, Kalkite, High Country Estate, Lakewood Estate and Cobbin Creek Estate.**

- _ It identifies a **10km radius ring from Jindabyne town centre** within which Council proposes to be able to **consider applications for rural living (small lot) subdivisions** for rural areas.
- _ Seven core principles were developed to guide the development of the Plan, such as; the unique setting of the town, including the vistas that can be enjoyed from many locations, integrity of the rural residential communities, small villages and the township needs to be maintained, however there needs to be linkages.



- _ Nine growth areas (labelled A to I) are proposed with recommended policy directions and actions to guide implementation.
- _ Recommended policy for Area A (west of Lake Jindabyne, including and adjoining Snowy Mountains Grammar School) sought to **direct new general residential development to the west of the township** with slopes below 18 degrees that are north facing and below the 1000m contour, and all **new residential development will be subject to design**

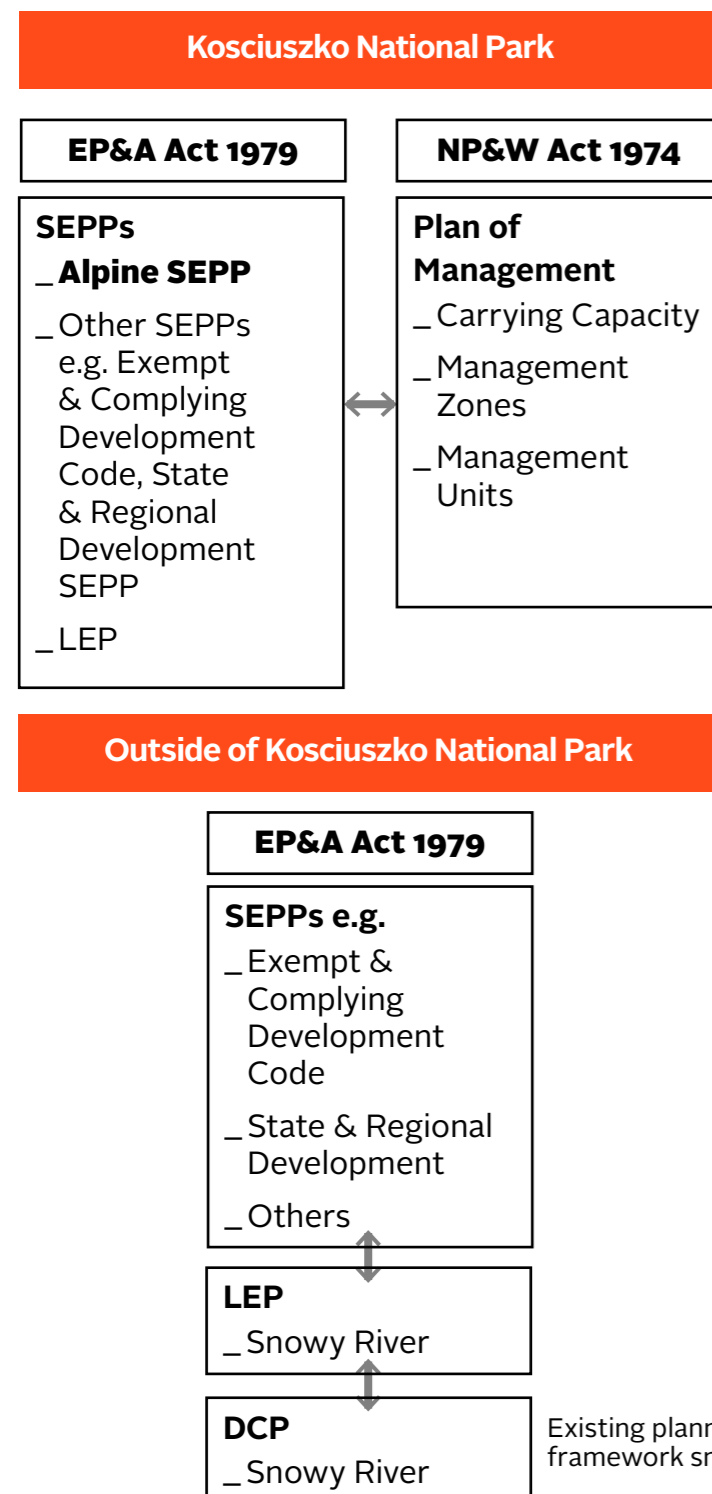


- _ **principles and guidelines** to manage visual impact.
- _ Recommended policy for Area D & E (area extending west and south of Tinworth Drive including the old Leesville Inn, and Leesville Estate - industrial zone) sought to **direct industrial development to a limited area to the north** subject to satisfactory resolution of biodiversity and heritage constraints.



5.2 Existing planning framework

Existing controls + new opportunities



Environmental Planning Instruments (SEPPs) and (LEPs)

Environmental planning instruments are statutory plans made under Part 3 of the *Environmental Planning and Assessment Act 1979*. These instruments guide development and land use within the Snowy Mountains SAP and include State Environmental Planning Policies (SEPPs), Regional Environmental Plans (REPs), and Local Environmental Plans (LEPs).

SEPPs deal with matters of State or REgional environmental planning significance. SEPPs can specify planning controls for certain areas and/or types of development (e.g. Kosciuszko National Park SEPP, Infrastructure SEPP). The development controls in a SEPP override those contained in a LEP.

LEPs guide and regulate planning decisions for local government areas. They do this through zoning and development controls, which provide a framework for the way land can be used.

Development Control Plans (DCPs) provide detailed planning and design guidelines to support the development controls in the LEP. DCPs are not environmental planning instruments / legally binding documents.

Existing planning framework

The key environmental planning instruments and legislation that currently apply to land, and the land uses, within the Snowy Mountains SAP are the:

- _ Kosciuszko National Park Plan of Management (KNP POM)
- _ State Environmental Planning Policy (Kosciuszko National Park—Alpine Resorts) 2007 (Alpine SEPP)
- _ Snowy River Local Environmental Plan 2013 (Snowy River LEP) and DCP.

Activation Precincts SEPP

A new State Environmental Planning Policy (Activation Precincts) 2020 (AP SEPP) has recently been established, providing a new planning framework to support development in Special Activation Precinct locations. The AP SEPP does not currently apply within the Snowy Mountains SAP Investigation Area.

Opportunities for future planning framework

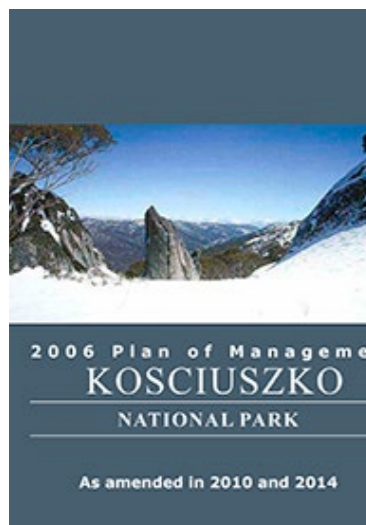
- _ Streamlining the current complexity and relationship between KNP POM and Alpine SEPP, as well as Snowy River LEP applying outside of Kosciuszko National Park.
- _ To accommodate the change in population, land use and infrastructure through the SAP planning framework.
- _ Opportunity to refine the development process so that it is clearer to proponents and doesn't discourage developments being proposed as has happened in the past. (Ramboll, 2020)
- _ Opportunity for the SAP to enable the option of expanding resort areas, if there are minimal environmental impacts associated with expansion. (Ramboll, 2020)

Note: Ramboll's analysis of statutory planning frameworks and opportunities for improvement provides more detailed issues and opportunities analysis for this topic.



Kosciuszko National Park Plan of Management (KNP POM)

The provisions of the plan are based upon an appreciation of the international and national significance of many of the values of the park, and recognition that it is a very important place for many Australians.



Overview

The KNP POM contains sets of policies and prescriptions aimed at improving the long-term condition of the natural and cultural values contained within the largest national park in New South Wales.

The KNP POM was prepared under the NSW National Parks and Wildlife Act 1974. A large range of international agreements, domestic legislation, and national, state and regional strategies underpin the KNP POM.

The management objectives, policies and actions contained within the POM are based upon the following principles:

- _ Existence Values
- _ Inter-generational and Intra-generational Equity
- _ Limits of Knowledge and Understanding
- _ Acting with Precaution (precautionary principle)
- _ Aboriginal People's Rights
- _ Levels of Significance
- _ Interconnectedness of Values and Places
- _ Limits of Acceptable Disturbance

- _ Environmental Stewardship
- _ Community Involvement
- _ Education
- _ Research
- _ Existing Rights
- _ Adaptive Management
- _ Transparency and Accountability.

Relevance to the Snowy Mountains SAP

The policies and strategies within the KNP POM apply to all land within the KNP, including alpine resort areas. It is mandatory for all operations within KNP to be consistent with the KNP POM.

The KNP POM contains the following layers:

- _ *Management Zones*
- _ *Management Units*
- _ *Management Objectives, Principles and Actions*

Of most relevance for the Investigation Area:










- _ **Back Country Zone:** areas surrounding alpine resorts which are without public road access and not within declared wilderness areas.

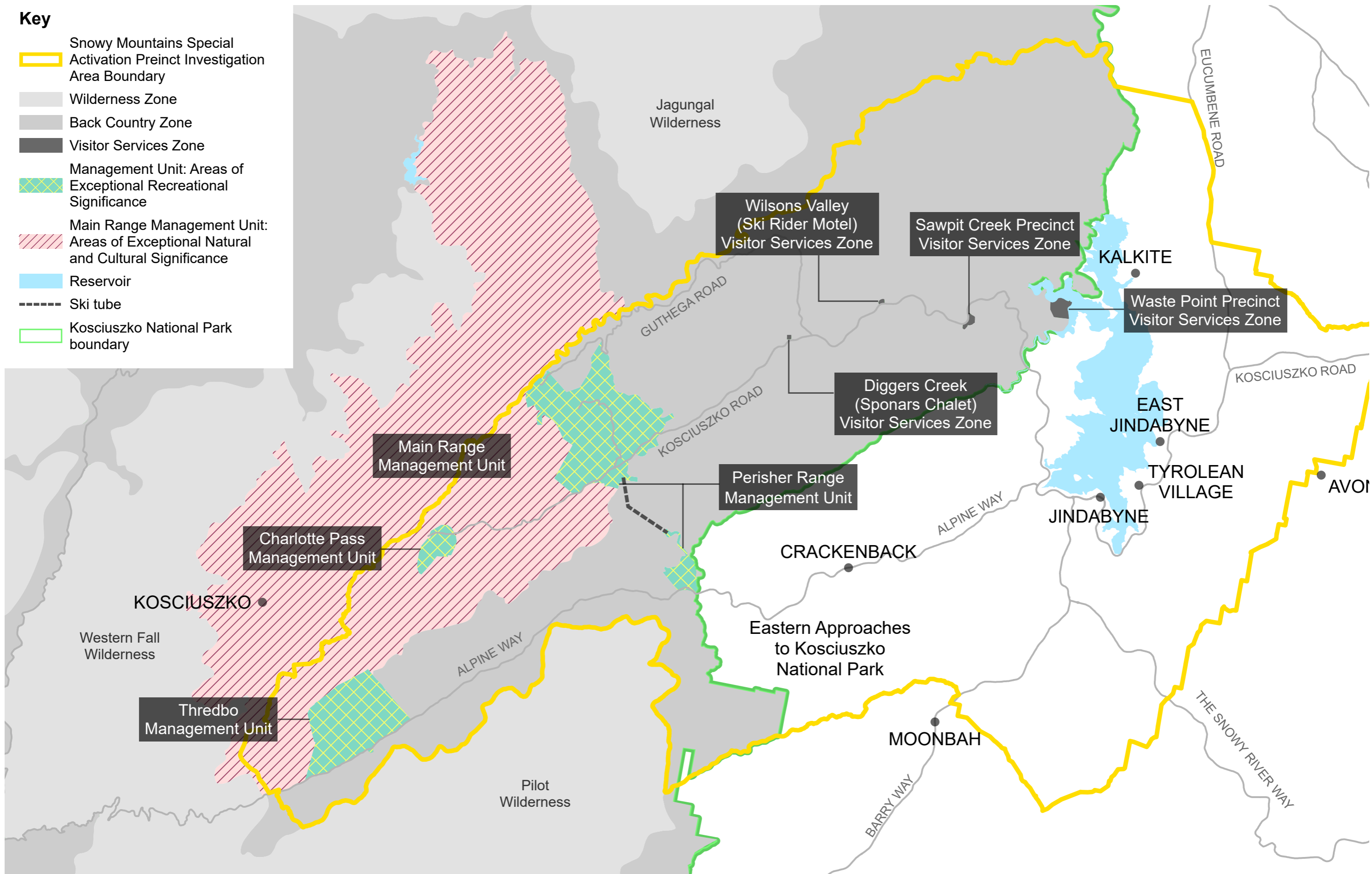
_ **Visitor Services Zone:** includes Charlotte Pass, Thredbo, Selwyn and Perisher Range alpine resorts where recreational infrastructure and visitor accommodation is concentrated. Boundaries of the resorts reflect the existing leases.

_ **The Main Range Management Unit:** surrounds the area between Perisher, Charlotte Pass and Thredbo. This unit comprises an Area of Exceptional Natural and Cultural Significance.

_ Four Management Units containing **Areas of Exceptional Recreational Significance:** these cover the resort areas of Charlotte Pass, Thredbo, Selwyn and Perisher Range. Chapter 10 and Schedule 8 of the KNP POM outline bed limits applicable to each of the resort areas (carrying capacity). The bed limits comprise of the following, Perisher 4952, Thredbo 4820, Charlotte Pass 611 and Selwyn 50 (essential serving staff only).

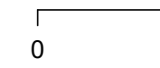
Key

-  Snowy Mountains Special Activation Preinct Investigation Area Boundary
-  Wilderness Zone
-  Back Country Zone
-  Visitor Services Zone
-  Management Unit: Areas of Exceptional Recreational Significance
-  Main Range Management Unit: Areas of Exceptional Natural and Cultural Significance
-  Reservoir
-  Ski tube
-  Kosciuszko National Park boundary



Key layers of the KNP POM in relation to the SAP boundary

Source: Snowy Mountains Special Activation Precinct Context Analysis - Legislative Framework, Ramboll, 2020



State Environmental Planning Policy (Kosciuszko National Park—Alpine Resorts) 2007 (Alpine SEPP)

The Alpine SEPP aims to manage the Kosciuszko National Park alpine resorts in a way that has regard to the principles of ecologically sustainable development.

Overview

The objectives of the Alpine SEPP include protecting natural and cultural heritage, providing planning controls to encourage environmentally sustainable development and minimising the risk of community exposure to environmental hazards within the alpine resorts of Kosciuszko National Park.

The Alpine SEPP applies to land within all ski resort areas in the Kosciuszko National Park (comprises land within lease boundaries). It also applies to Kosciuszko Road and the Alpine Way.

Development assessment requirements

Assessment of development applications under the Alpine SEPP are merit based as there are no prescriptive development controls contained with the document and there is no development control plan (DCP) related to the SEPP.

Key assessment criteria under the Alpine SEPP include the following:

- _ Environmental / Biodiversity Conservation Act
- _ Bushfire
- _ Existing character / built form
- _ Adjoining amenity
- _ Cultural heritage
- _ Geotech policy
- _ Safety.

Other assessment requirements of the Alpine SEPP include:

- _ Environmental impacts, geotechnical and land stability issues must be assessed
- _ No dwellings are permitted in the resort areas, only tourist accommodation
- _ All major development proposals are required to be advertised
- _ All development proposals are required to be referred to the NSW National Parks and Wildlife for comment and to be authorised under the National Parks and Wildlife Act 1974.

Land use table

The Land Use Table in the SEPP specifies for each alpine resort:

- _ Development that may be carried out without consent
- _ Development that may be carried out with consent
- _ Development that is prohibited.



Snowy River Local Environmental Plan 2013 (Snowy River LEP)

The Snowy River LEP aims to plan and provide for urban settlement where it provides a diverse range of housing and employment options without compromising the environmental values of the Snowy River.

Overview

The Snowy River LEP establishes the statutory planning context for development within the Snowy River LGA.

All land within the Snowy Mountains SAP is subject to the provisions of the Snowy River LEP. **The Alpine SEPP overrides the Snowy River LEP to the extent that it applies to land within the Alpine Resorts.**

The Snowy River LEP is currently undergoing a review process as part of consolidating LEPs within the amalgamated Snowy Monaro LGA.

KNP zoning

Land within the KNP is zoned E1 National Parks and Nature Reserves under the Snowy River LEP. Land uses that are permitted without consent are those that are authorised under the NPW Act 1974, there are no identified uses permitted with consent and all other development is prohibited. This zoning does not control development on land within the KNP as it is subject to the provisions of the KNP POM and Alpine SEPP instead.

Jindabyne zoning

Development within Jindabyne is subject to the Snowy River LEP. Key zones within the Jindabyne town centre include:

- _ **B2 Local Centre** - Envisages a range of retail, business, entertainment and community land uses as well as residential development in the form of top shop housing.
- _ **R1 General Residential** - Envisages a variety of housing types and densities and other land uses that provide facilities / services to cater to the daily needs of residents. Tourist / visitor accommodation that is compatible with the surrounding residential character is also envisaged.
- _ **R2 Low Density Residential** - Envisages low density housing, short-term, low impact tourist / visitor accommodation and land uses that provide facilities to meet the day to day needs of local residents.
- _ **SP3 Tourist** - Envisages a variety of tourist-oriented development and related uses that is sympathetic with the rural setting, scenic values and landscape features of the area.

Tyrolean Village

_ **RU5 Village** - Envisages a range of land uses, services and facilities that are associated with a rural village.

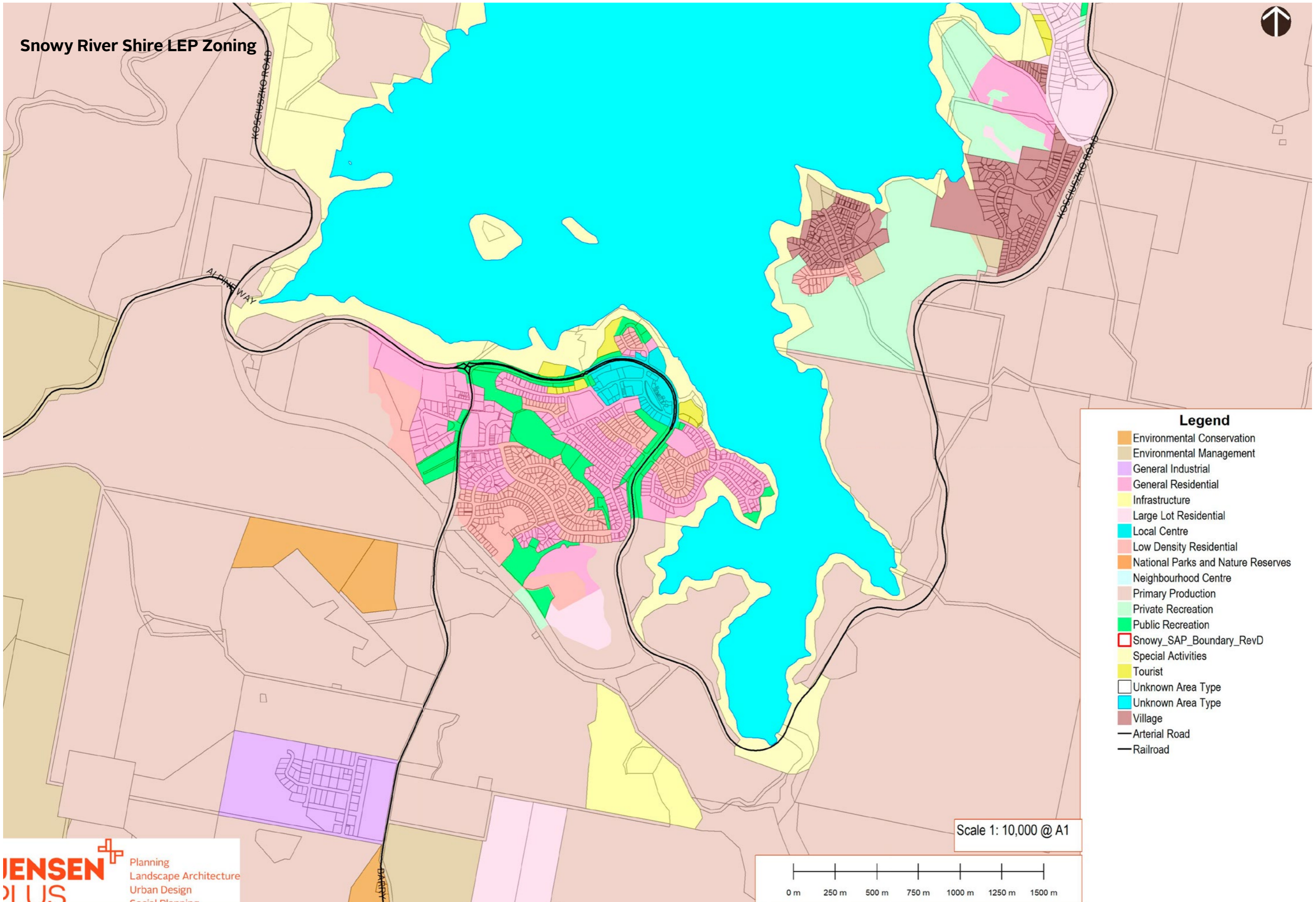
East Jindabyne

_ **R5 Large Lot Residential** - Envisages residential housing on large lots in a rural setting. This zone provides a buffer between urban development and broad acre rural and environmental areas.

Development within Lake Eucumbene and Lake Jindabyne Scenic Protection Area (Clause 7.6)

Applies to Lake Jindabyne and the immediate areas surrounding the Lake, except township footprints in these areas. Development in areas to which this provision applies must not have an unacceptable visual impact on the scenic quality of the area when viewed from the lake at its full capacity or from a public space.

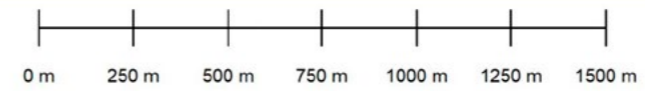
Snowy River Shire LEP Zoning



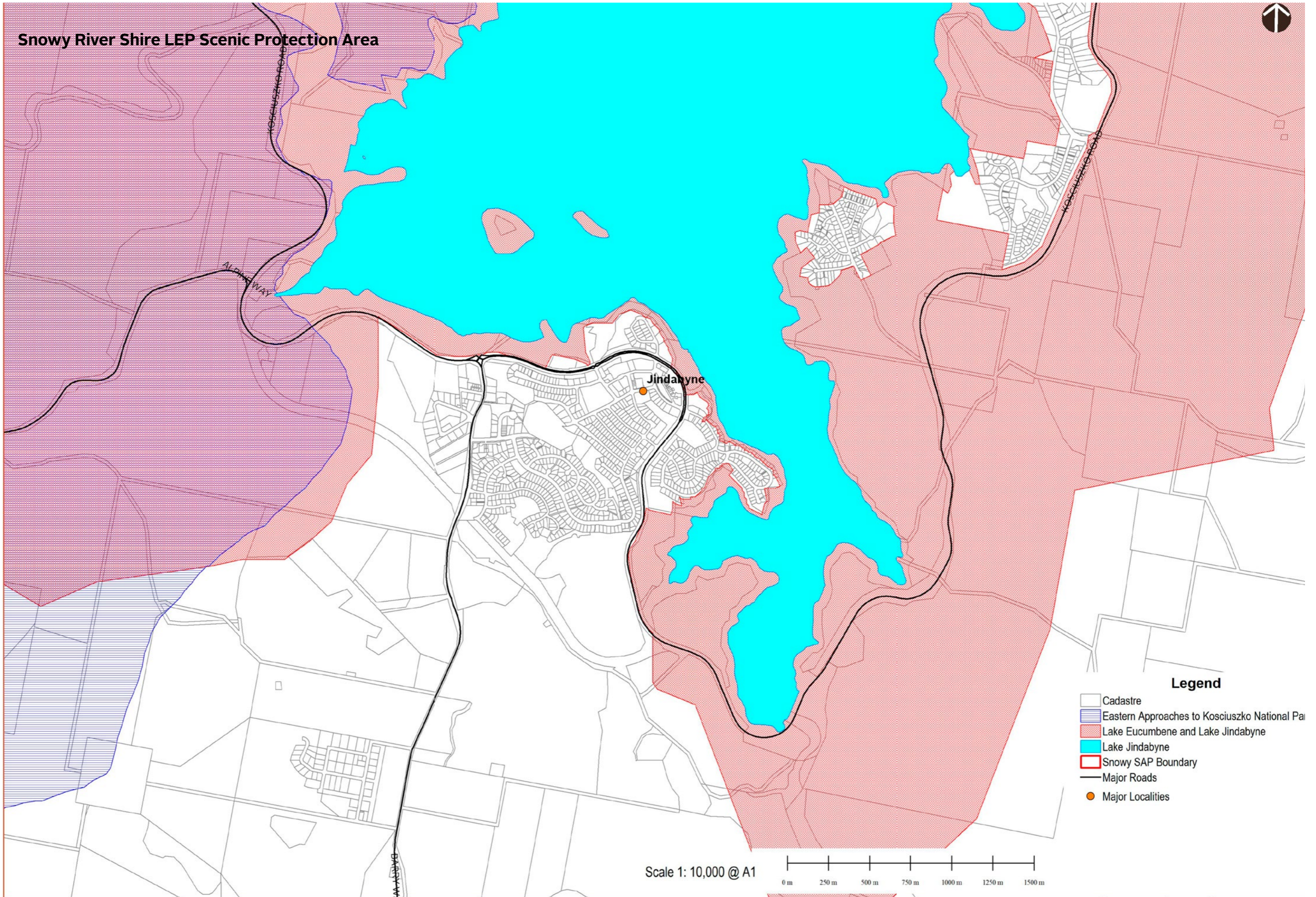
Legend

- Environmental Conservation
- Environmental Management
- General Industrial
- General Residential
- Infrastructure
- Large Lot Residential
- Local Centre
- Low Density Residential
- National Parks and Nature Reserves
- Neighbourhood Centre
- Primary Production
- Private Recreation
- Public Recreation
- Snowy_SAP_Boundary_RevD
- Special Activities
- Tourist
- Unknown Area Type
- Unknown Area Type
- Village
- Arterial Road
- Railroad

Scale 1: 10,000 @ A1

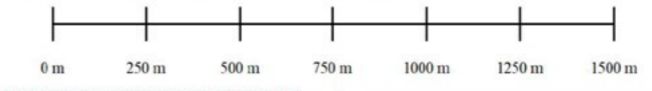


Snowy River Shire LEP Scenic Protection Area



- Legend**
- Cadastre
 - Eastern Approaches to Kosciuszko National Pa
 - Lake Eucumbene and Lake Jindabyne
 - Lake Jindabyne
 - Snowy SAP Boundary
 - Major Roads
 - Major Localities

Scale 1: 10,000 @ A1





5.3 Go Jindabyne Master Plan (incomplete), 2019 Hills Thalys

The Go Jindabyne masterplanning was reviewed to identify strategies to carry forward into the SAP planning, as well as gaps and potential alternative approaches.

10 Vision elements

1. **Multimodal** and connected town, with pedestrian links, cycle routes, sustainable transport alternatives, improved road safety, and better managed congestion and car parking
2. **Accessible** place for people of all ages and abilities, with opportunities for health care and **aged care**
3. **Year-round tourism** and sustainable activities
4. Modern community, arts and culture, **recreation and education facilities**, including new opportunities for **tertiary education**
5. **Housing choices are affordable** and cater for a variety of household types
6. Built form enhances the town's **alpine character and country town charm**
7. **Employment lands** provide opportunities for established and emerging businesses
8. United, **vibrant** and safe town centre
9. **High quality public open spaces** ...as well as local walking and cycling trails
10. Aboriginal **culture** and heritage is recognised and celebrated

Demographic and Housing Study

_ By 2036, there will be 1897 new residents in the Jindabyne-Berridale Statistical Area.

Ecology and Heritage

_ Protect important environmental assets such as NSW Snowgum woodland landscapes, Commonwealth natural temperate grasslands, 9 species of threatened fauna, 3 species of threatened flora

_ Establish corridors to protect and regenerate native flora and fauna

_ Conserve sites currently listed on heritage registers

Mobility and Connectivity

_ Review reduction of speed to 40km/h on Kosciuszko Road in the town centre

_ Make formal pedestrian crossings along Kosciuszko Road to access lake front

_ Provide more cycle facilities in Jindabyne

Social Infrastructure

_ Development of a new Community Hub in the Jindabyne town centre

_ Retain Jindabyne Central School in the town centre

_ Connect to the Sport and Recreation Centre

_ Provide an indoor sporting facility

_ Educate the community about Aboriginal history of the Snowy Mountains region as part of a new Snowy Heritage Centre

Utilities

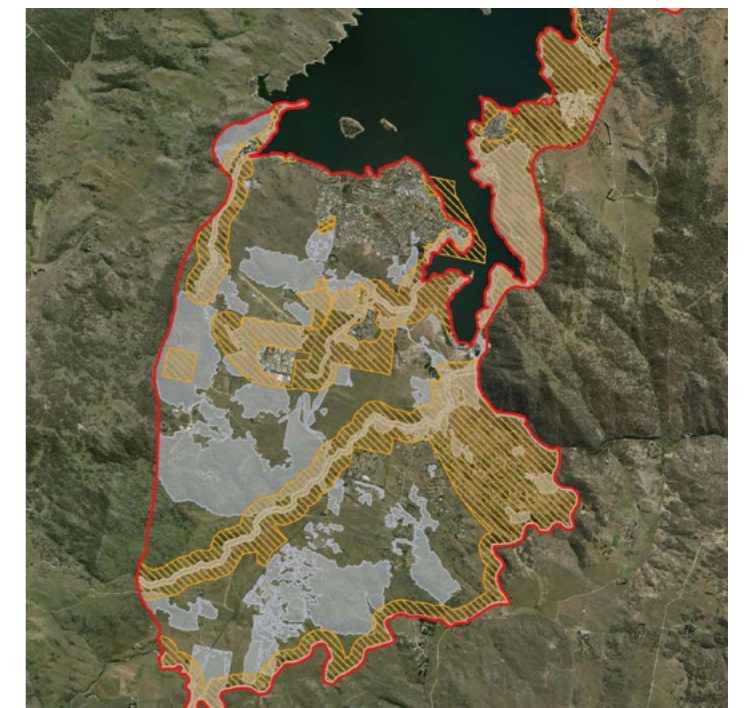
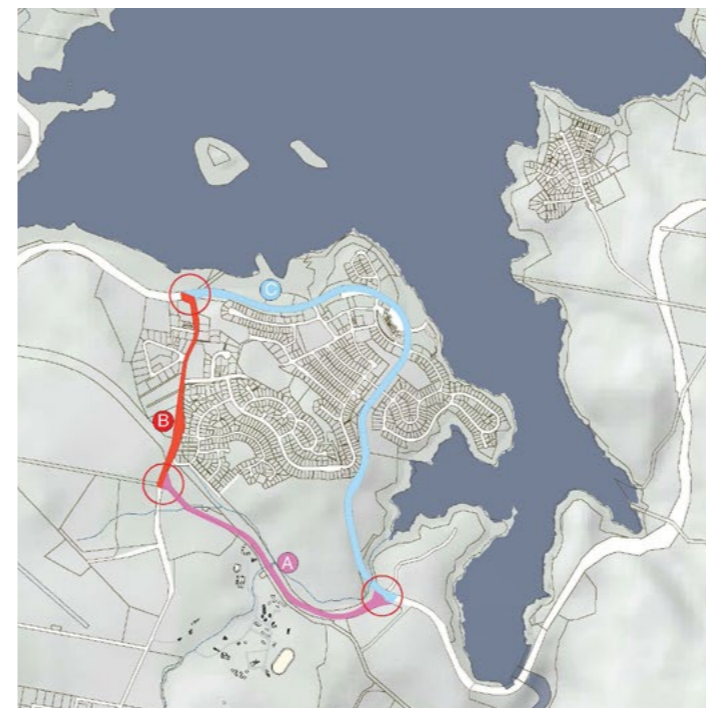
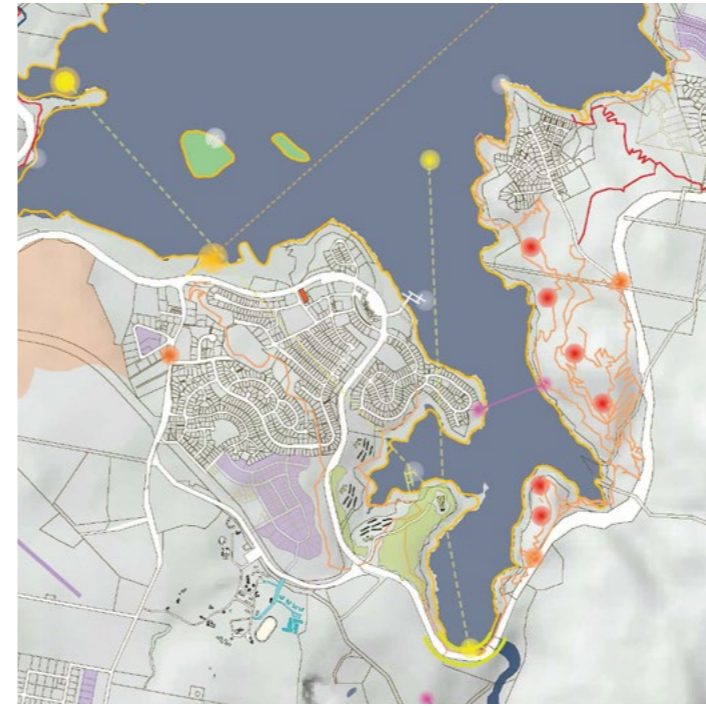
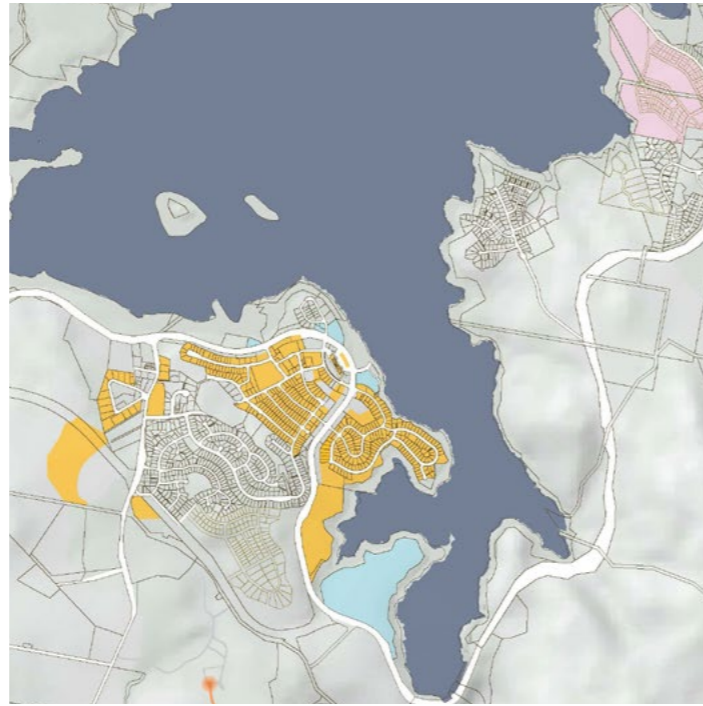
_ Lake Jindabyne is an unprotected water source, creating potential risks to the quality of drinking water

_ Power supply in Jindabyne and East Jindabyne is unreliable and may cause interruptions to water supply



Click drop down boxes
for more info

cont.





cont.

Economic Development + Tourism

- _ Tourism related jobs make up 43% of total jobs*
- _ The market still perceives the region as a winter destination*
- _ Accommodation type biased to snow season rather than summer season*
- _ There is a lack of 3.5 to 5 star accommodation overlooking the lake*
- _ Jindabyne has a shortage of affordable accommodation for seasonal workers*
- _ There are industrial estate lands in the pipeline over the next few years*
- _ Cycling and mountain biking should be a core green season activity*

Public realm ideas

- _ Undertake further feasibility testing for*
 - _ breakwater, jetty, pontoon to support sunset tours, functions and pick up drop off services for walkers and cyclists*
 - _ sandy beach, summer based floating water park on the lake and lake front café*
 - _ upgraded infrastructure for foreshore events*
 - _ provision of a better path for traversing the Jindabyne Dam Wall supported by a new carpark*
 - _ round-the-lake interpretive trail to connect Jindabyne to the wider region, Tyrolean Village, East Jindabyne and Kalkite*
 - _ an all-weather adventure hub - including a covered / heated water park or ice rink on the foreshore, a bowling alley, indoor go carts, trampolining, covered climbing walls, covered mountain bike trails.*

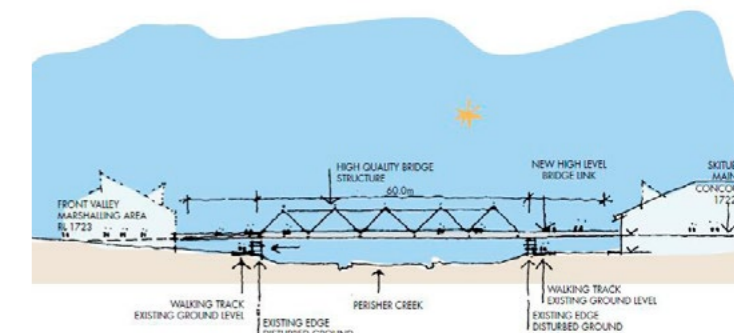
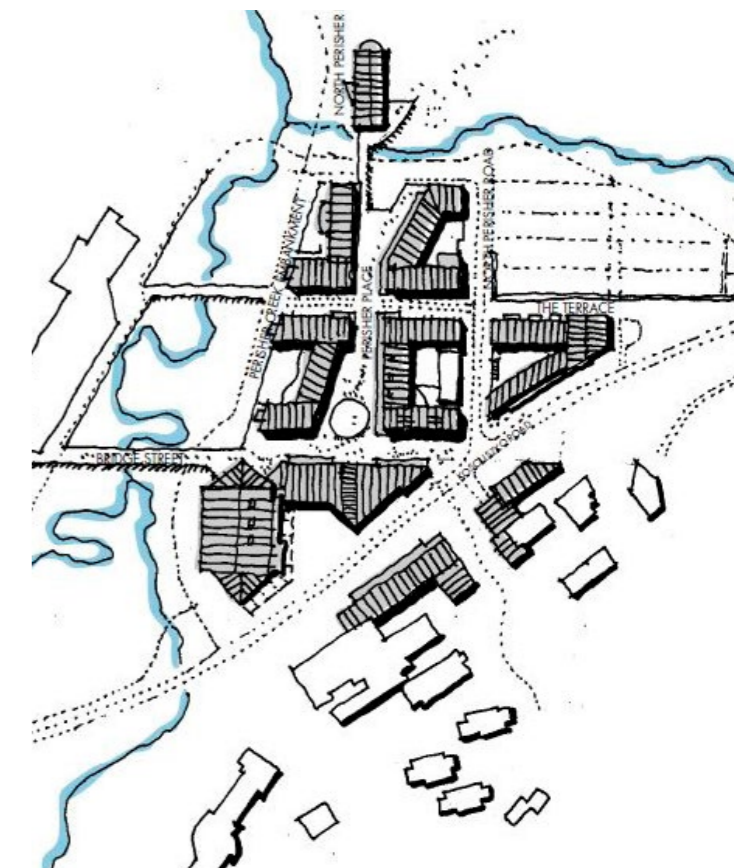
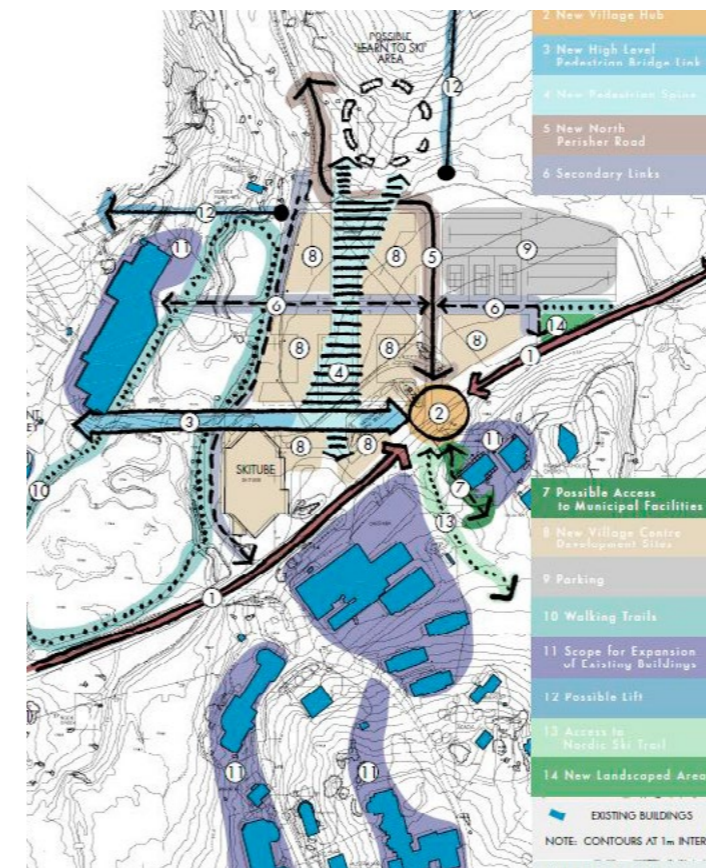


5.4 Perisher Range Resorts Master Plan (NPWS, 2001)

Central to this master plan was a 800-bed 'village centre' resort development at Perisher, located over existing car parking areas. The plan took many years to develop but the centre was never developed. 20 years on, is it time to revisit a different form of development at Perisher?

Master Plan highlights

- _ 800 bed village centre at Perisher
- _ Master plans for other resort locations
- _ No major change to access
- _ Stringent environmental controls
- _ "Urban design approach" to village centre designs, layout, streets and public realm, design controls etc
- _ Similar planning aims to SAP master plan?
- _ Peak resort use of 25,000/day predicted for 2014 - did this happen?
- _ Promoting all year destination
- _ Centre to be built on main car park - some reduction in parking spaces
- _ Big plan with big infrastructure e.g. major pedestrian bridge
- _ 6 development sites, 13,500m² land, 43,000m² GFA
- _ Proposed development controls and guidelines included.





5.5 Creel Bay Master Plan (NPWS, 2019)

NPWS’ 2019 master plan for its Creel Bay site (adjacent NPWS depot) has a vision to “provide year-round, sustainable, nature-based accommodation and facilities that respects the sites history and enables the user to experience and learn about the site and its surroundings.”

Opportunities

- _ Provide accommodation with a point of difference e.g. experiential and nature-based accommodation which leverages from the natural setting.
- _ Adaptive re-use of the existing Creel Bay Cottages (note: these cottages have been recently refurbished and now open to the public as accommodation).
- _ Removing selected existing cottages to allow space for new camping areas and amenities.
- _ Deliver unique non-snow experiences in one of Australia’s recognised ‘National Landscapes’.
- _ Align accommodation options to both winter and summer period.
- _ Expand the locations’ visitor appeal by relating the site to arts, culture and education e.g. through a sculpture trail, interpretive walking experiences, heritage interpretation and an adventure activities hub at the boat ramp precinct.
- _ Capitalise on the nearby walking trail networks which follow the Thredbo and Snowy Rivers and alpine trail networks.



Proposal C - Utilise existing built form with opportunities for additional amenity and accommodation



Recently completed Creel Bay Cabins



5.6 Snowy River Development Control Plan (2013)

Detailed objectives and controls for ensuring well designed, quality land use and development within the Snowy River Shire.



Overview

This DCP provides detailed guidance for development within the (former) Snowy River Shire so that it achieves the aims and objectives of the Snowy River Shire LEP.

This plan applies to the same land as the Snowy River LEP with the exception of an area located xx (under the site specific Development Control Plan T2 Tyrolean Village Stage 3)

General planning considerations that apply to all development proposals include:

- _ Subdivision
- _ Design (views and landscape, crime prevention through design)
- _ Car parking, traffic and access
- _ Heritage
- _ Tree preservation and landscaping
- _ Signage and advertising
- _ Natural hazard management
- _ Environmental management
- _ Energy and water efficiency, water supply and effluent disposal
- _ Waste management and recycling.

Jindabyne rural locality statement

Key planning responses:

- _ Maintain pattern of smaller farms for part-time or hobby farming.
- _ Enable farm adjustment.
- _ Median holding size for the locality is 18 ha and average holding size 66 ha. Subdivision will not result in any greater fragmentation of the rural land.
- _ Minimum lot size for dwelling consents (refer Snowy River LEP 2013) is reflective of the average size of a farm in the locality.
- _ Locality has high landscape amenity, particularly areas around Lake Jindabyne and areas with a view to the mountains.
- _ Whole locality is attractive for small rural lot subdivisions, due to proximity to town and ski fields.
- _ Locality is attractive for tourist developments due to proximity to the ski fields, retail and services and due to landscape amenity.

Jindabyne Town Centre development controls

- _ Urban Form
- _ Traffic, access, parking and servicing
- _ Building and Site Design
- _ Building Exterior
- _ Open Space & Landscaping.



5.7 DRAFT Alpine Resorts Development Control Plan (2019)

The purpose of this draft DCP is/was to supplement the provisions of the Alpine SEPP to guide quality development and sound environmental outcomes within the Alpine Resorts.

Proposed character and design criteria may be appropriate to incorporate into the Snowy Mountains SAP master planning.

Overview

NOTE: this DCP is still in its drafting stage and has not been placed on consultation due to the Snowy Mountains SAP commencement.

This DCP would apply to all land to which the Alpine SEPP applies, which includes the following Alpine Resorts:

- _ Thredbo Alpine Resort;
- _ Perisher Range Alpine Resort (includes Perisher Valley, Smiggin Holes, Guthega, Blue Cow and Bullocks Flat);
- _ Mount Selwyn Alpine Resort;
- _ Charlotte Pass Alpine Resort;
- _ Kosciuszko Mountain Retreat;
- _ Sponars Chalet Alpine Resort; and
- _ Ski Rider Resort.

Design Controls

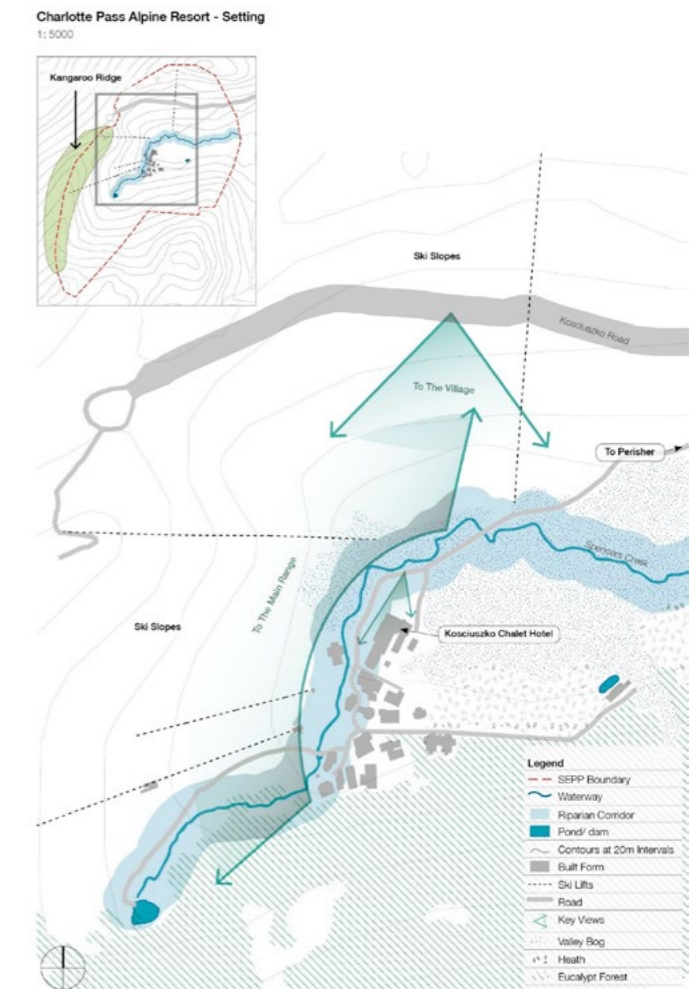
- _ Building Siting and Location
- _ Building Height and Scale
- _ Building Design
- _ Building Materials
- _ Amenity
- _ Car parking and Access
- _ Ski Slope Developments and Infrastructure

Character Controls

- _ A Character Analysis
- _ A Character Statement
- _ Character Objectives

Management Controls

- _ Biodiversity and Riparian Lands
- _ Aboriginal Cultural Heritage
- _ Non-Aboriginal Heritage
- _ Archaeological Management
- _ Bushfire Prone Land
- _ Geotechnical Requirement
- _ Waste Management
- _ Construction Management
- _ Ecologically Sustainable Development.



A character analysis informs proposed controls for each alpine resorts area _ Charlotte Pass Alpine Resort

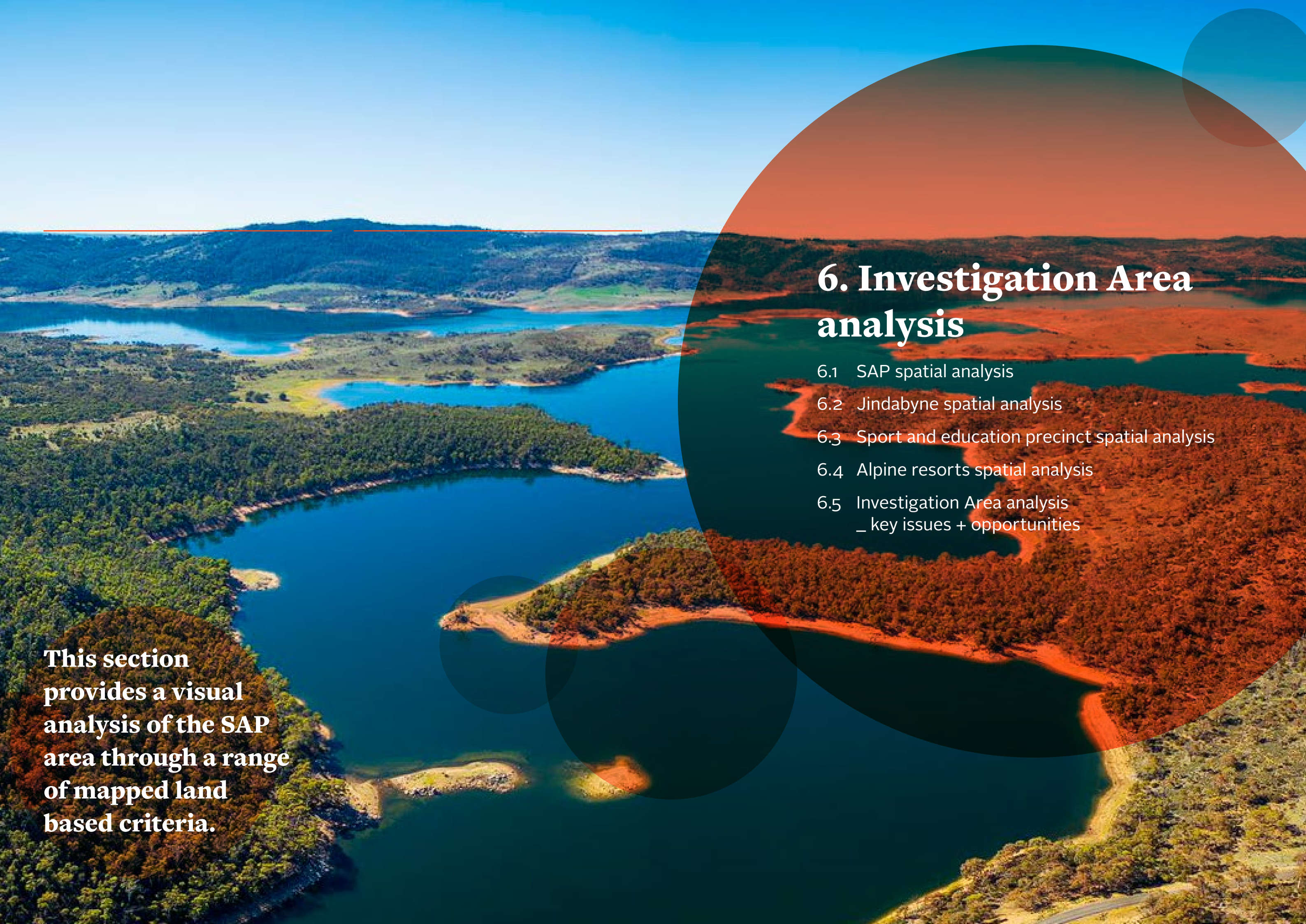


5.8 Strategic context _ Key issues + opportunities



Click drop down boxes
for more info





This section provides a visual analysis of the SAP area through a range of mapped land based criteria.

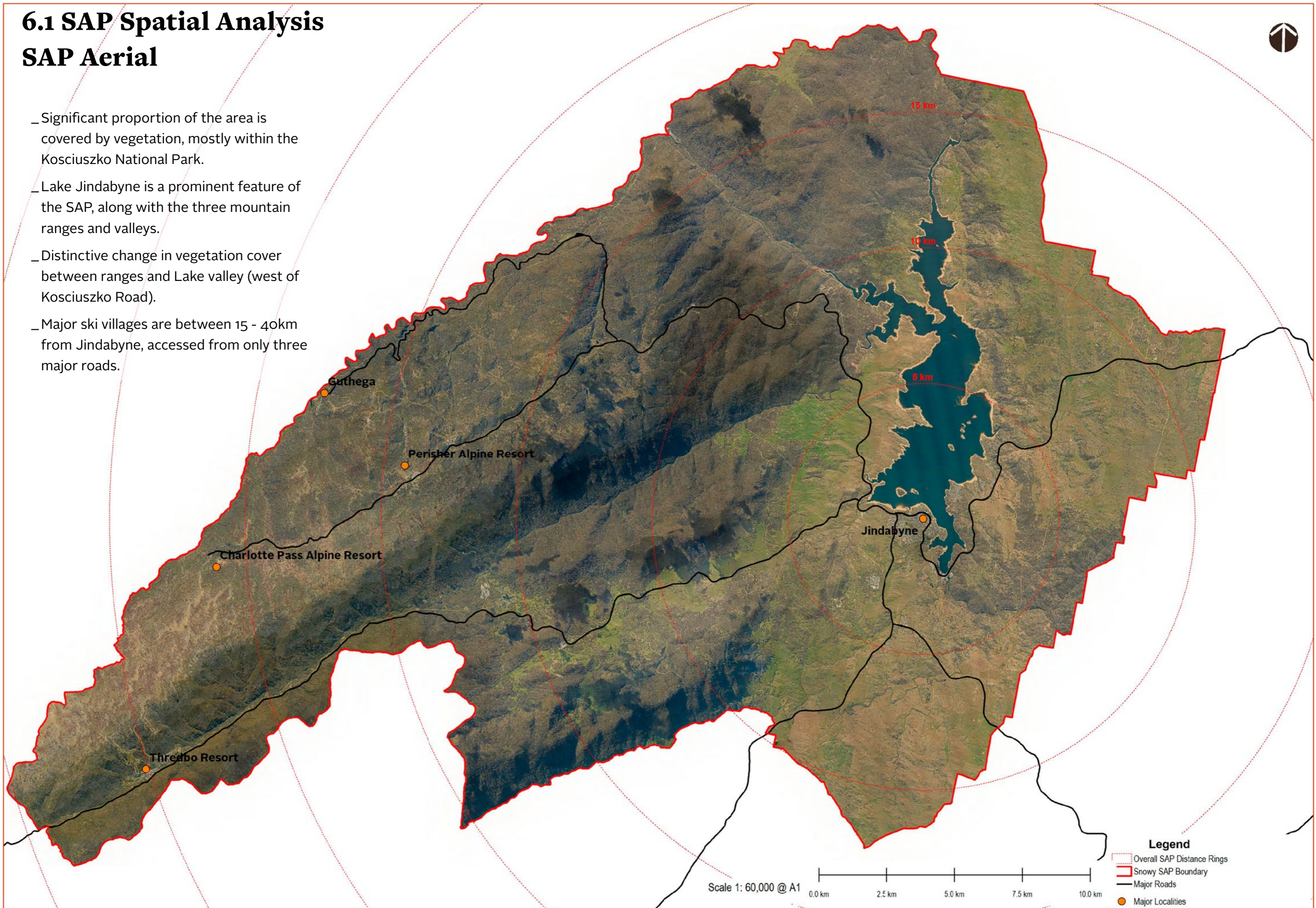
6. Investigation Area analysis

- 6.1 SAP spatial analysis
- 6.2 Jindabyne spatial analysis
- 6.3 Sport and education precinct spatial analysis
- 6.4 Alpine resorts spatial analysis
- 6.5 Investigation Area analysis
_ key issues + opportunities

6.1 SAP Spatial Analysis

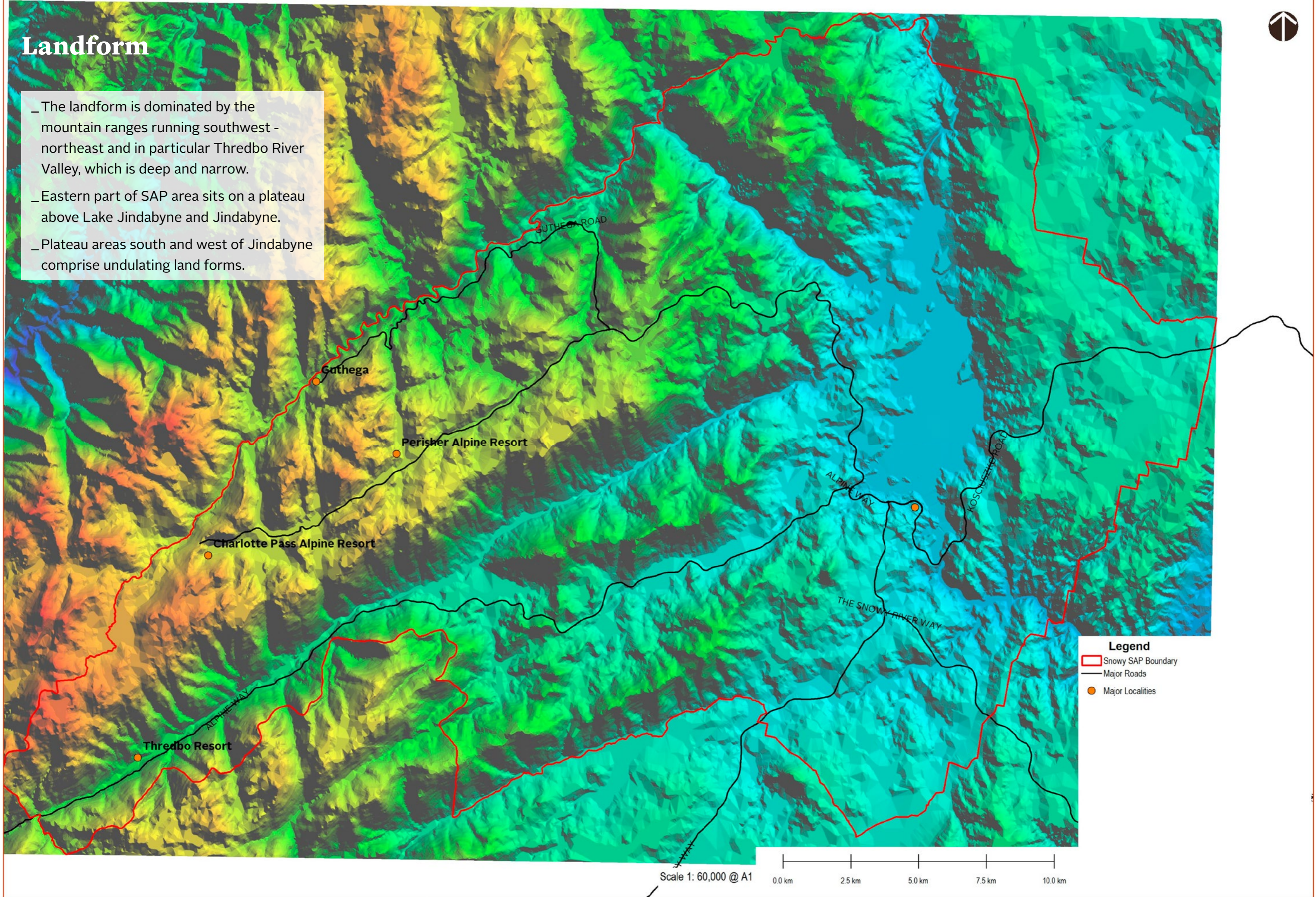
SAP Aerial

- _ Significant proportion of the area is covered by vegetation, mostly within the Kosciuszko National Park.
- _ Lake Jindabyne is a prominent feature of the SAP, along with the three mountain ranges and valleys.
- _ Distinctive change in vegetation cover between ranges and Lake valley (west of Kosciuszko Road).
- _ Major ski villages are between 15 - 40km from Jindabyne, accessed from only three major roads.



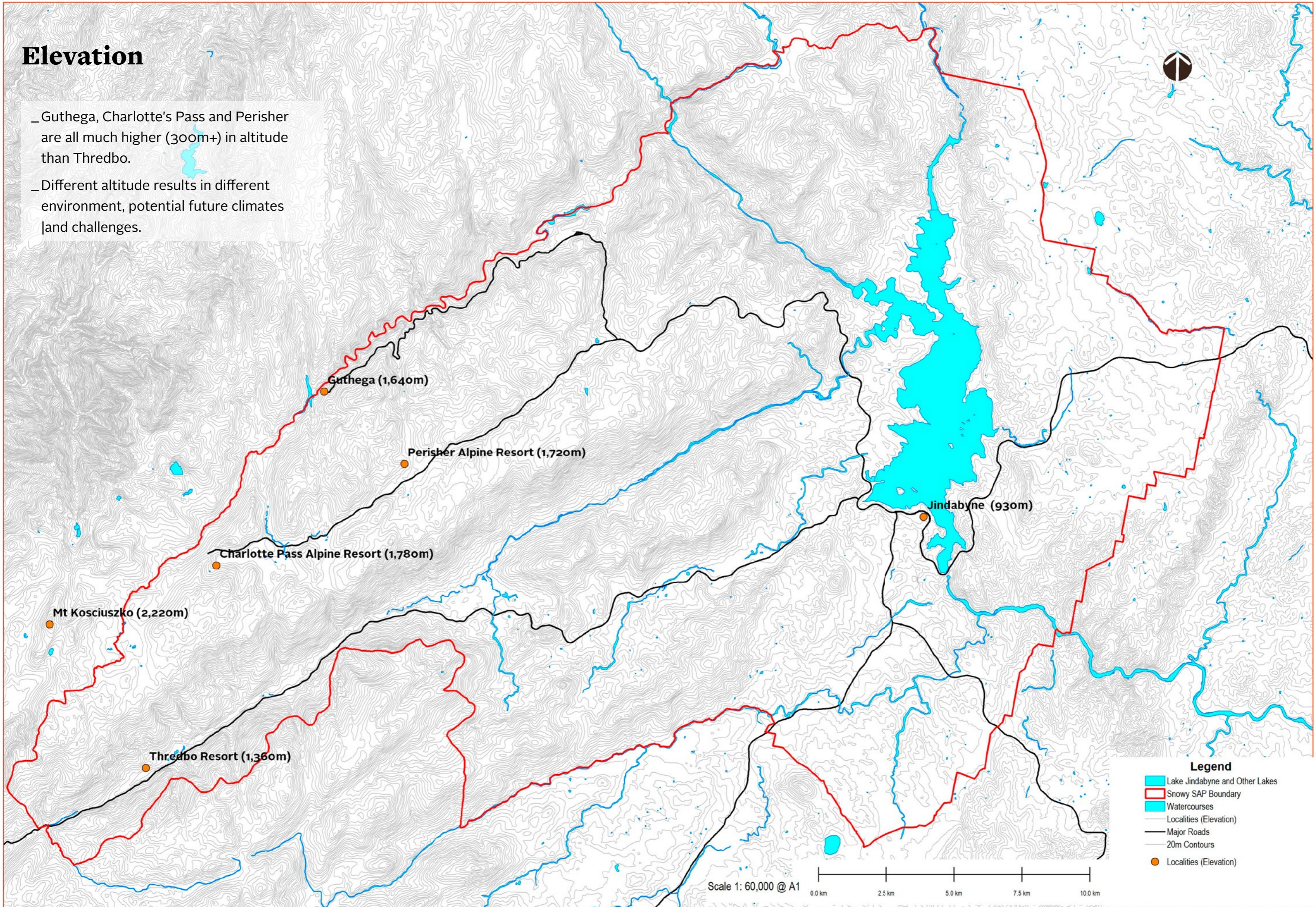
Landform

- _ The landform is dominated by the mountain ranges running southwest - northeast and in particular Thredbo River Valley, which is deep and narrow.
- _ Eastern part of SAP area sits on a plateau above Lake Jindabyne and Jindabyne.
- _ Plateau areas south and west of Jindabyne comprise undulating land forms.



Elevation

- _ Guthega, Charlotte's Pass and Perisher are all much higher (300m+) in altitude than Thredbo.
- _ Different altitude results in different environment, potential future climates and challenges.



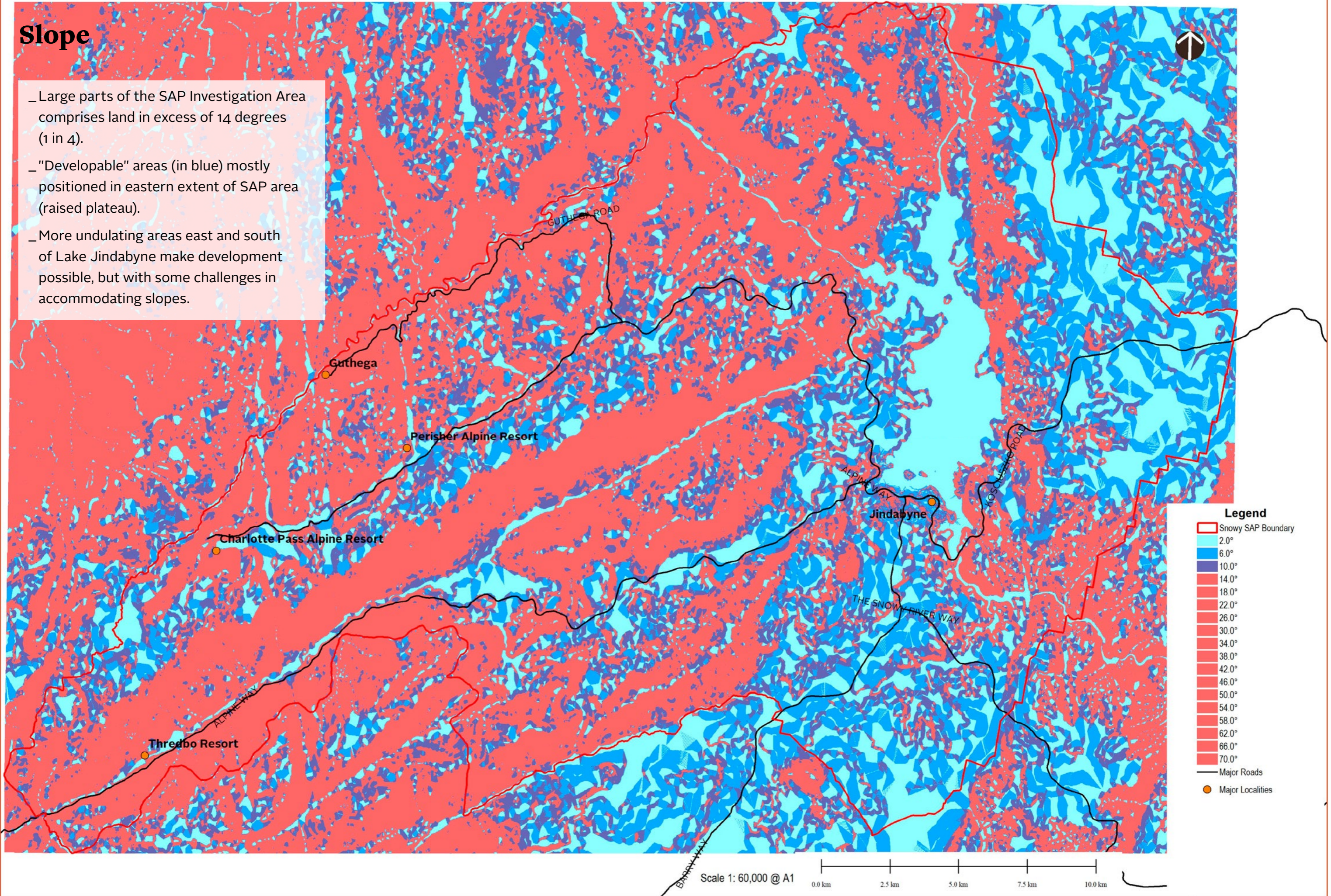
Legend

- Lake Jindabyne and Other Lakes
- Snowy SAP Boundary
- Watercourses
- Localities (Elevation)
- Major Roads
- 20m Contours
- Localities (Elevation)

Scale 1: 60,000 @ A1
0.0 km 2.5 km 5.0 km 7.5 km 10.0 km

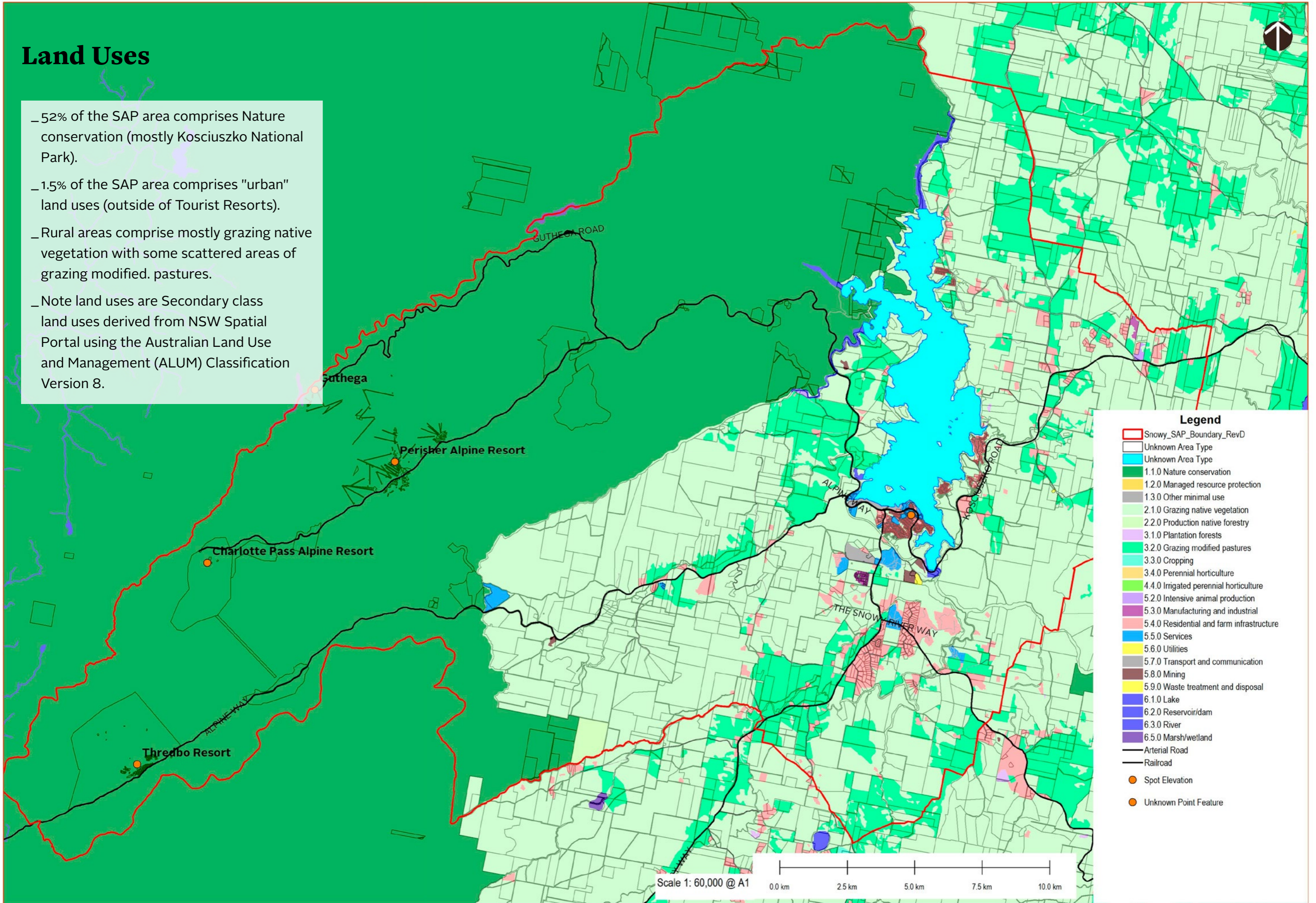
Slope

- _ Large parts of the SAP Investigation Area comprises land in excess of 14 degrees (1 in 4).
- _ "Developable" areas (in blue) mostly positioned in eastern extent of SAP area (raised plateau).
- _ More undulating areas east and south of Lake Jindabyne make development possible, but with some challenges in accommodating slopes.



Land Uses

- _ 52% of the SAP area comprises Nature conservation (mostly Kosciuszko National Park).
- _ 1.5% of the SAP area comprises "urban" land uses (outside of Tourist Resorts).
- _ Rural areas comprise mostly grazing native vegetation with some scattered areas of grazing modified. pastures.
- _ Note land uses are Secondary class land uses derived from NSW Spatial Portal using the Australian Land Use and Management (ALUM) Classification Version 8.



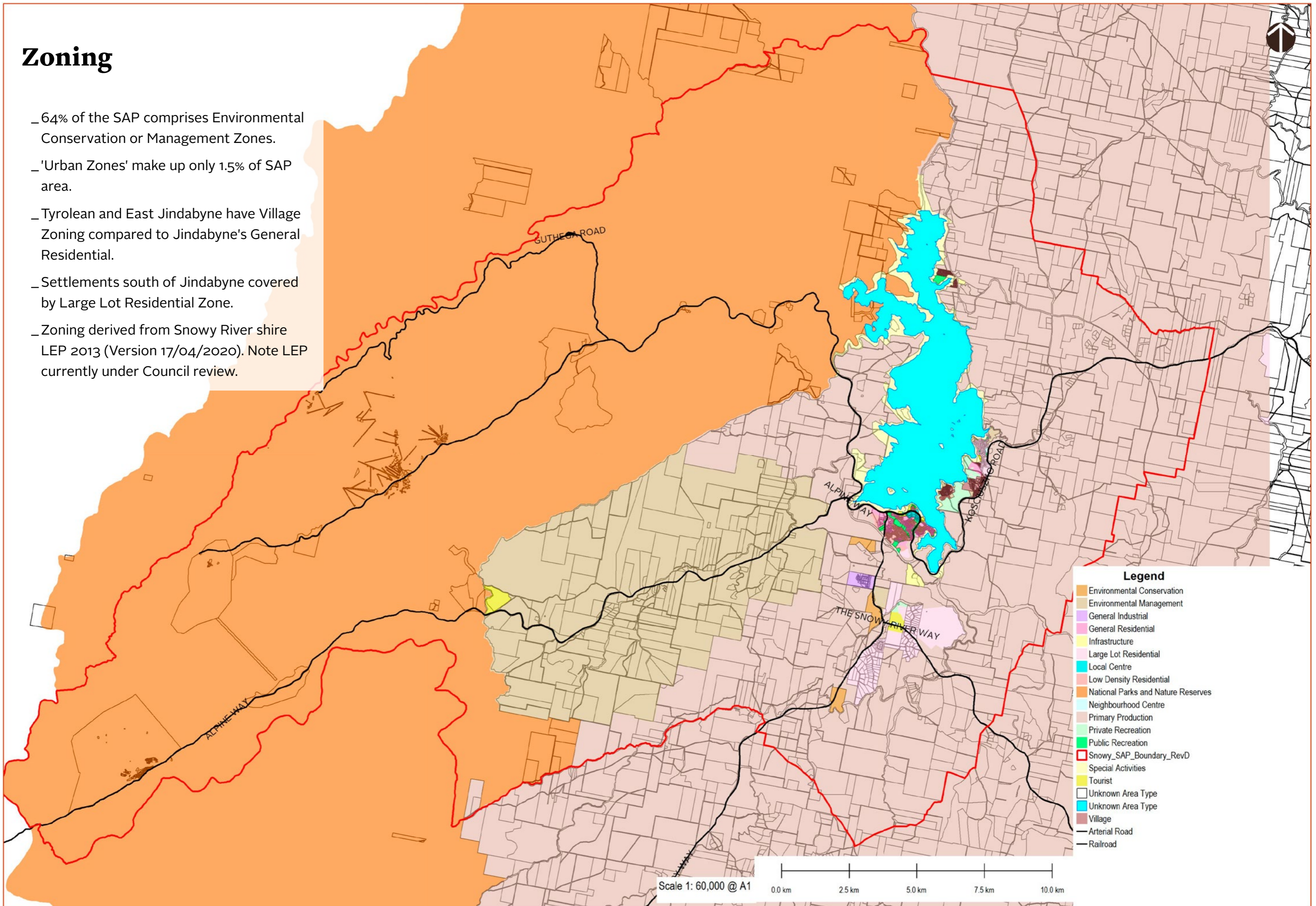
Legend

[Red outline]	Snowy_SAP_Boundary_RevD
[White box]	Unknown Area Type
[Light blue box]	Unknown Area Type
[Dark green box]	1.1.0 Nature conservation
[Yellow box]	1.2.0 Managed resource protection
[Grey box]	1.3.0 Other minimal use
[Light green box]	2.1.0 Grazing native vegetation
[Light green box]	2.2.0 Production native forestry
[Purple box]	3.1.0 Plantation forests
[Light green box]	3.2.0 Grazing modified pastures
[Light green box]	3.3.0 Cropping
[Yellow box]	3.4.0 Perennial horticulture
[Light green box]	4.4.0 Irrigated perennial horticulture
[Purple box]	5.2.0 Intensive animal production
[Purple box]	5.3.0 Manufacturing and industrial
[Pink box]	5.4.0 Residential and farm infrastructure
[Blue box]	5.5.0 Services
[Blue box]	5.6.0 Utilities
[Grey box]	5.7.0 Transport and communication
[Brown box]	5.8.0 Mining
[Yellow box]	5.9.0 Waste treatment and disposal
[Blue box]	6.1.0 Lake
[Blue box]	6.2.0 Reservoir/dam
[Blue box]	6.3.0 River
[Purple box]	6.5.0 Marsh/wetland
[Black line]	Arterial Road
[Black line]	Railroad
[Orange dot]	Spot Elevation
[Orange dot]	Unknown Point Feature

Scale 1: 60,000 @ A1
 0.0 km 2.5 km 5.0 km 7.5 km 10.0 km

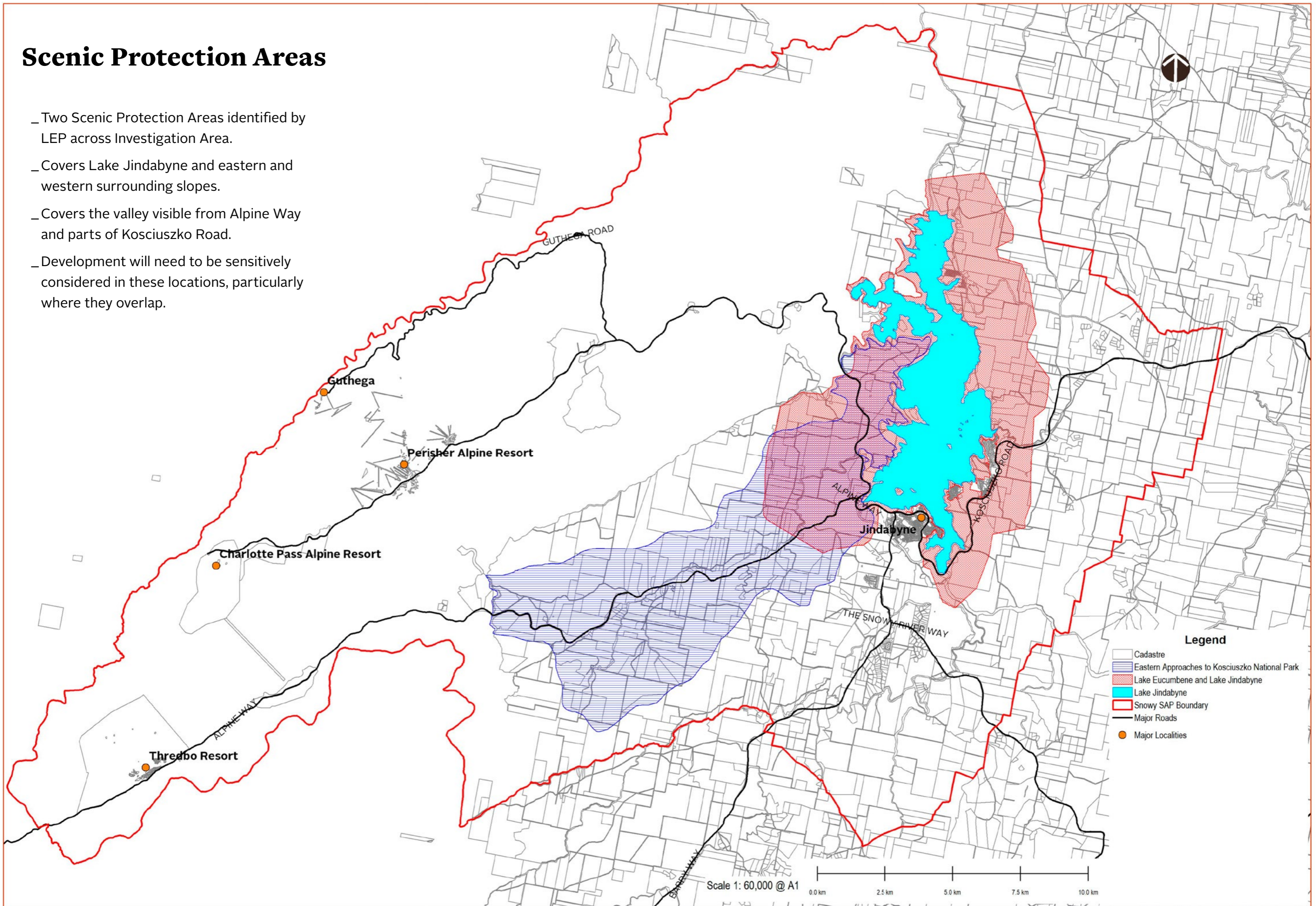
Zoning

- _ 64% of the SAP comprises Environmental Conservation or Management Zones.
- _ 'Urban Zones' make up only 1.5% of SAP area.
- _ Tyrolean and East Jindabyne have Village Zoning compared to Jindabyne's General Residential.
- _ Settlements south of Jindabyne covered by Large Lot Residential Zone.
- _ Zoning derived from Snowy River shire LEP 2013 (Version 17/04/2020). Note LEP currently under Council review.



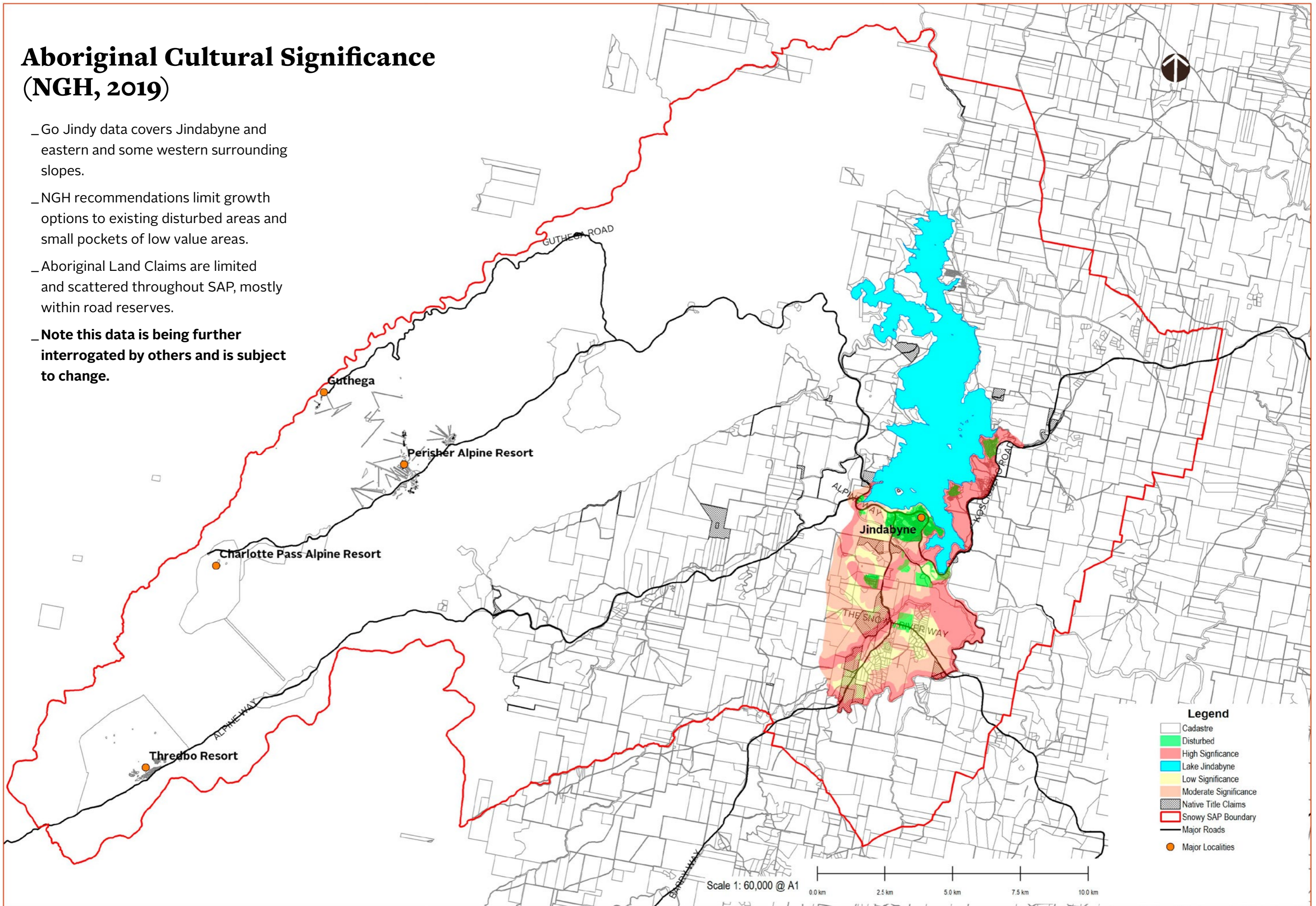
Scenic Protection Areas

- _ Two Scenic Protection Areas identified by LEP across Investigation Area.
- _ Covers Lake Jindabyne and eastern and western surrounding slopes.
- _ Covers the valley visible from Alpine Way and parts of Kosciuszko Road.
- _ Development will need to be sensitively considered in these locations, particularly where they overlap.



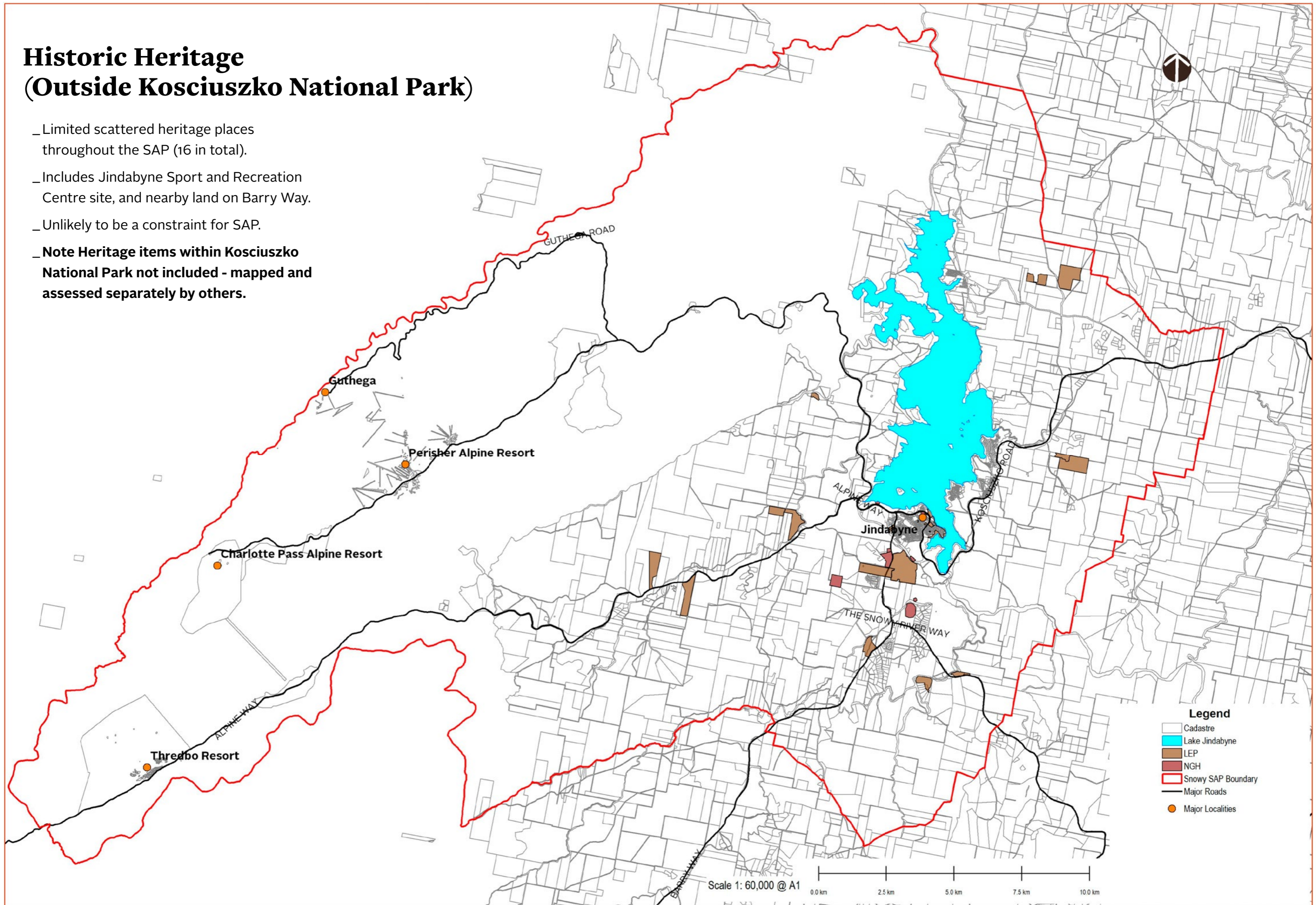
Aboriginal Cultural Significance (NGH, 2019)

- _ Go Jindy data covers Jindabyne and eastern and some western surrounding slopes.
- _ NGH recommendations limit growth options to existing disturbed areas and small pockets of low value areas.
- _ Aboriginal Land Claims are limited and scattered throughout SAP, mostly within road reserves.
- _ **Note this data is being further interrogated by others and is subject to change.**



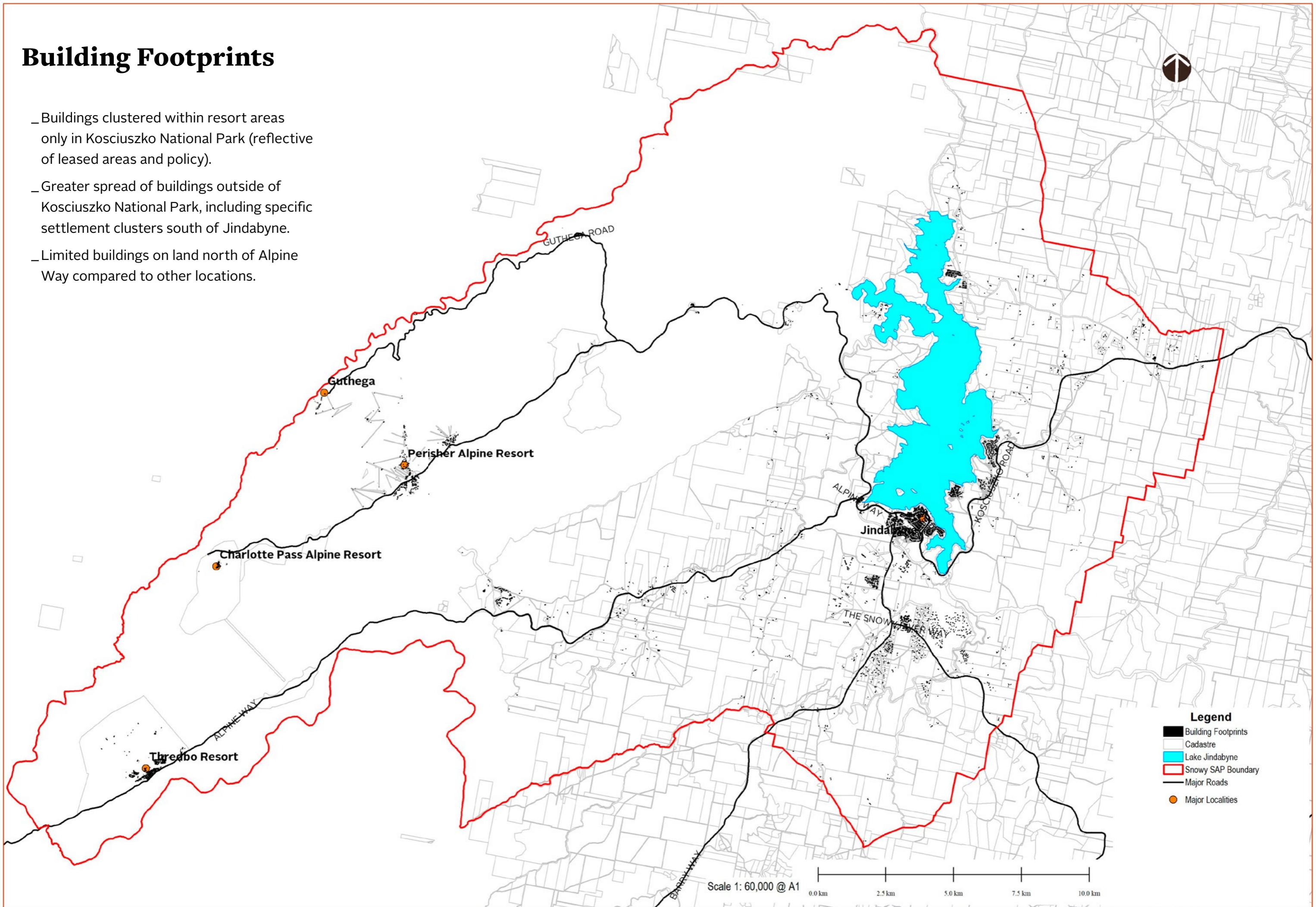
Historic Heritage (Outside Kosciuszko National Park)

- _ Limited scattered heritage places throughout the SAP (16 in total).
- _ Includes Jindabyne Sport and Recreation Centre site, and nearby land on Barry Way.
- _ Unlikely to be a constraint for SAP.
- _ **Note Heritage items within Kosciuszko National Park not included - mapped and assessed separately by others.**



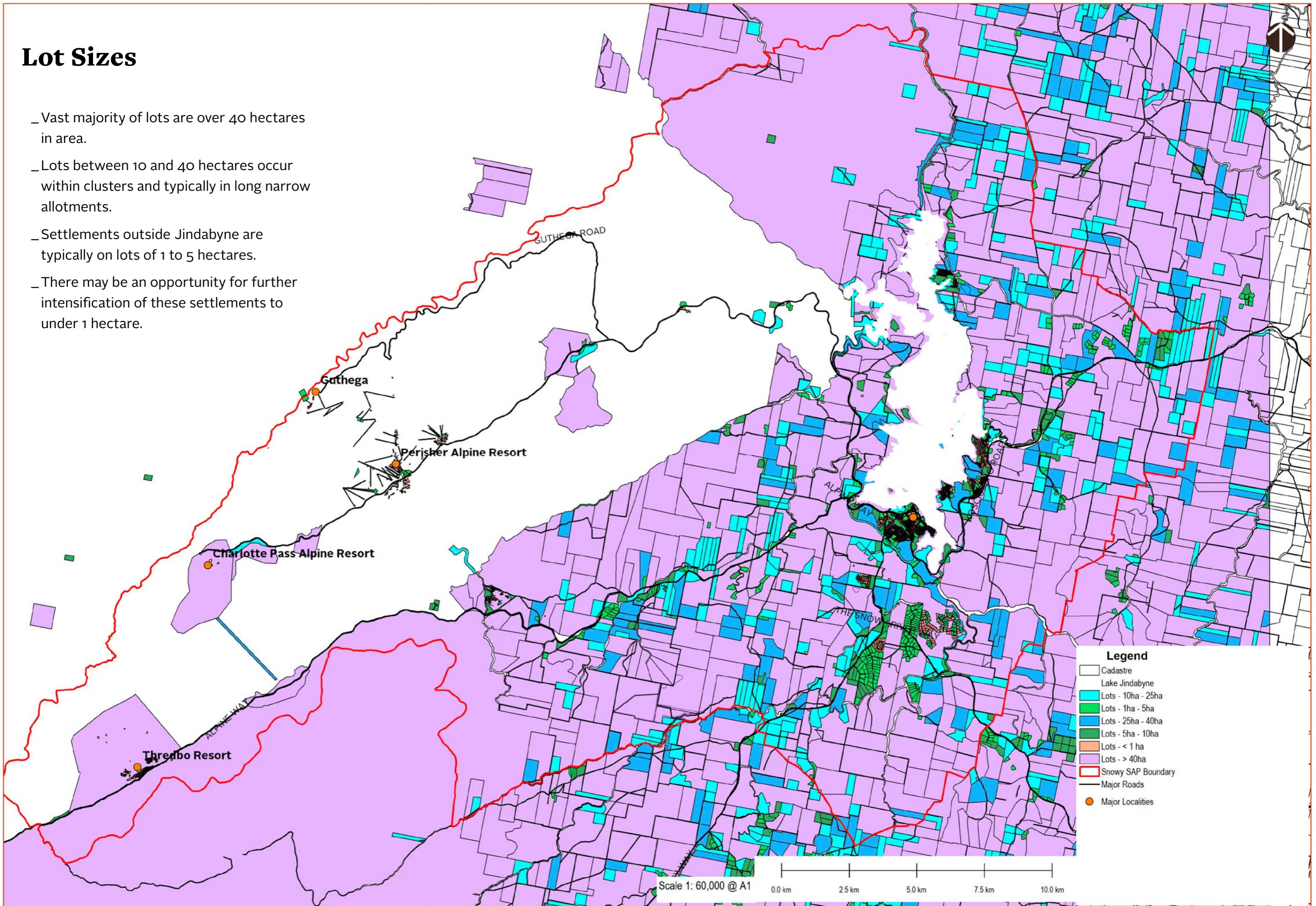
Building Footprints

- _ Buildings clustered within resort areas only in Kosciuszko National Park (reflective of leased areas and policy).
- _ Greater spread of buildings outside of Kosciuszko National Park, including specific settlement clusters south of Jindabyne.
- _ Limited buildings on land north of Alpine Way compared to other locations.



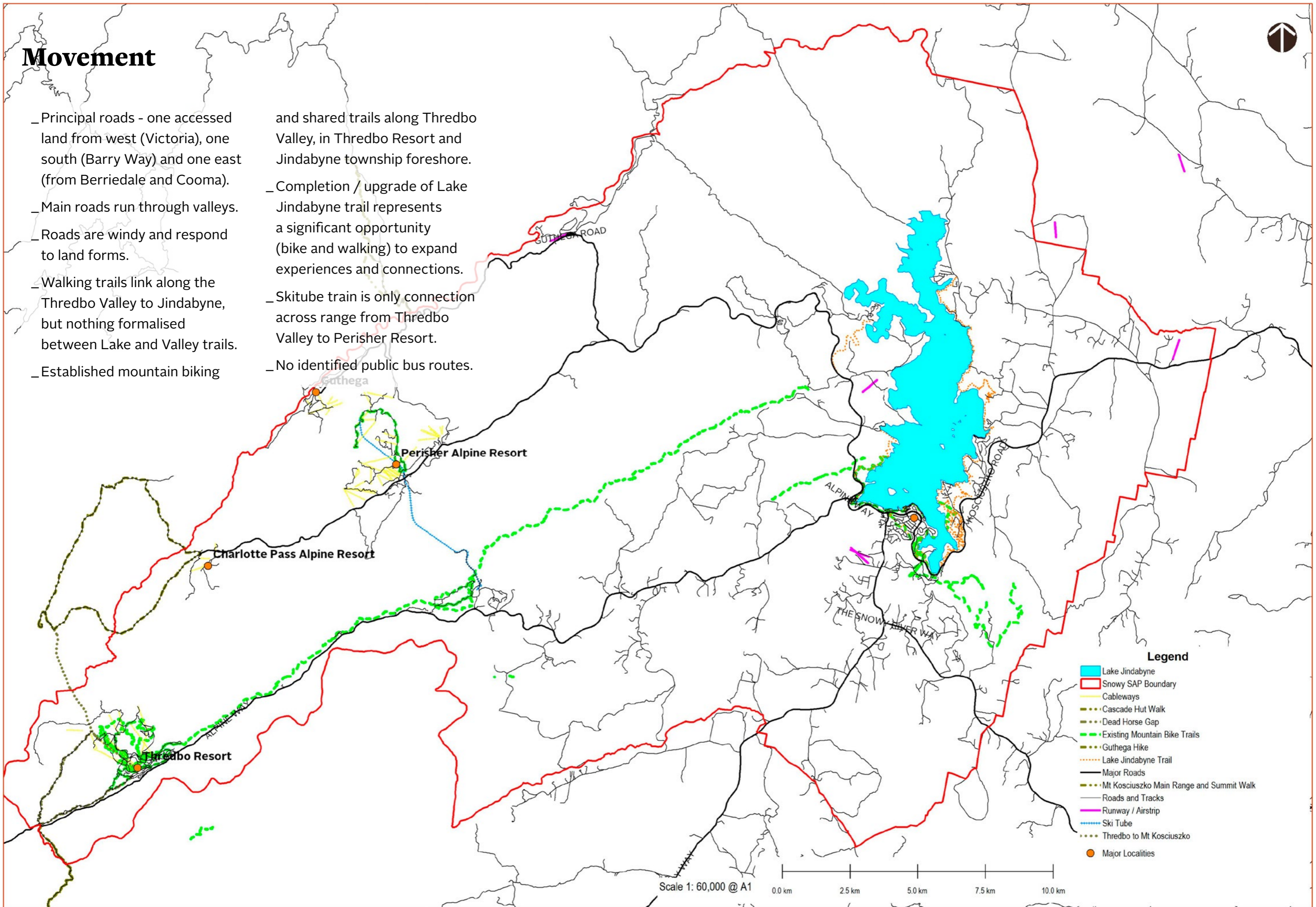
Lot Sizes

- _ Vast majority of lots are over 40 hectares in area.
- _ Lots between 10 and 40 hectares occur within clusters and typically in long narrow allotments.
- _ Settlements outside Jindabyne are typically on lots of 1 to 5 hectares.
- _ There may be an opportunity for further intensification of these settlements to under 1 hectare.



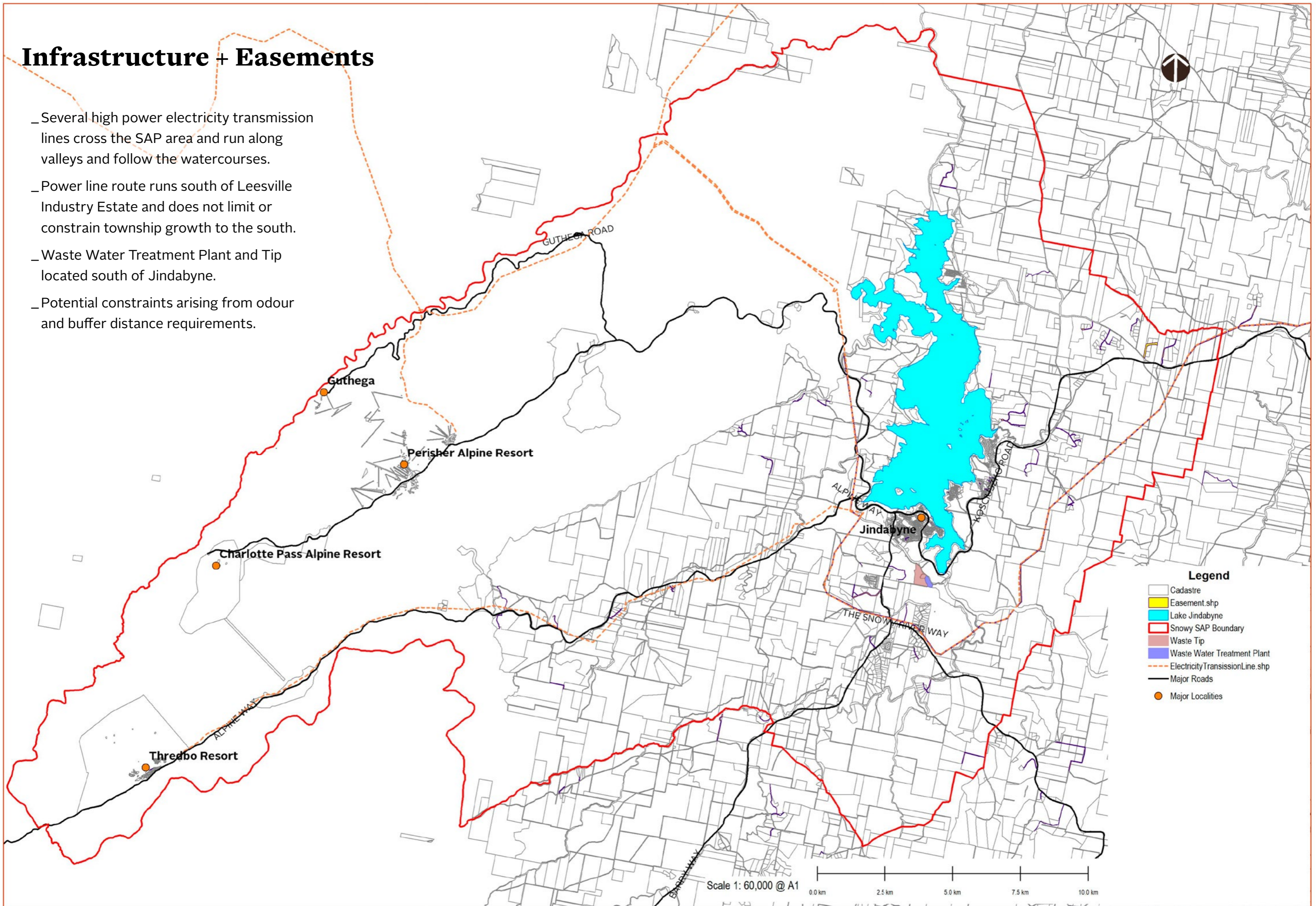
Movement

- _ Principal roads - one accessed land from west (Victoria), one south (Barry Way) and one east (from Berriedale and Cooma).
- _ Main roads run through valleys.
- _ Roads are windy and respond to land forms.
- _ Walking trails link along the Thredbo Valley to Jindabyne, but nothing formalised between Lake and Valley trails.
- _ Established mountain biking and shared trails along Thredbo Valley, in Thredbo Resort and Jindabyne township foreshore.
- _ Completion / upgrade of Lake Jindabyne trail represents a significant opportunity (bike and walking) to expand experiences and connections.
- _ Skitube train is only connection across range from Thredbo Valley to Perisher Resort.
- _ No identified public bus routes.



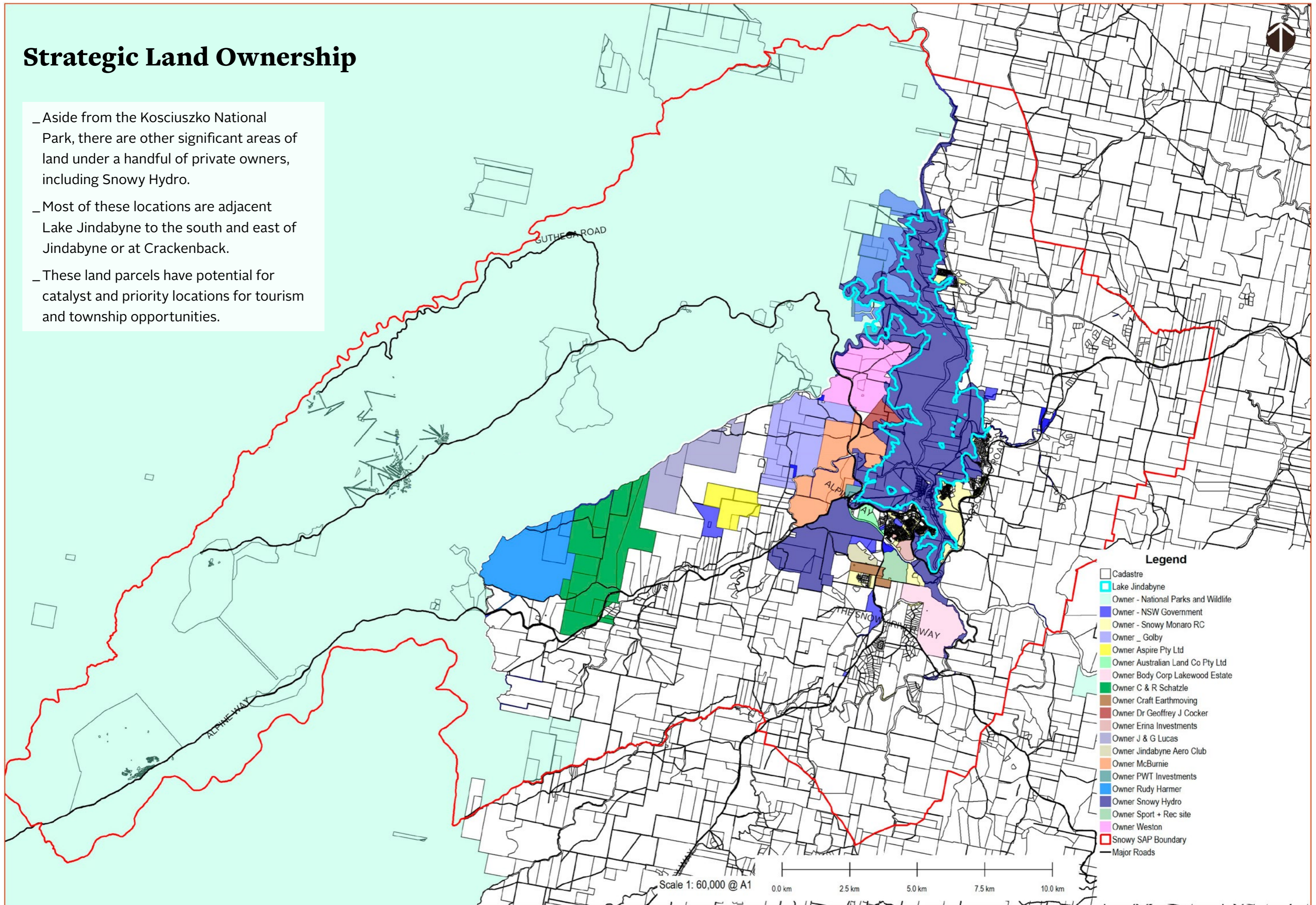
Infrastructure + Easements

- _ Several high power electricity transmission lines cross the SAP area and run along valleys and follow the watercourses.
- _ Power line route runs south of Leesville Industry Estate and does not limit or constrain township growth to the south.
- _ Waste Water Treatment Plant and Tip located south of Jindabyne.
- _ Potential constraints arising from odour and buffer distance requirements.



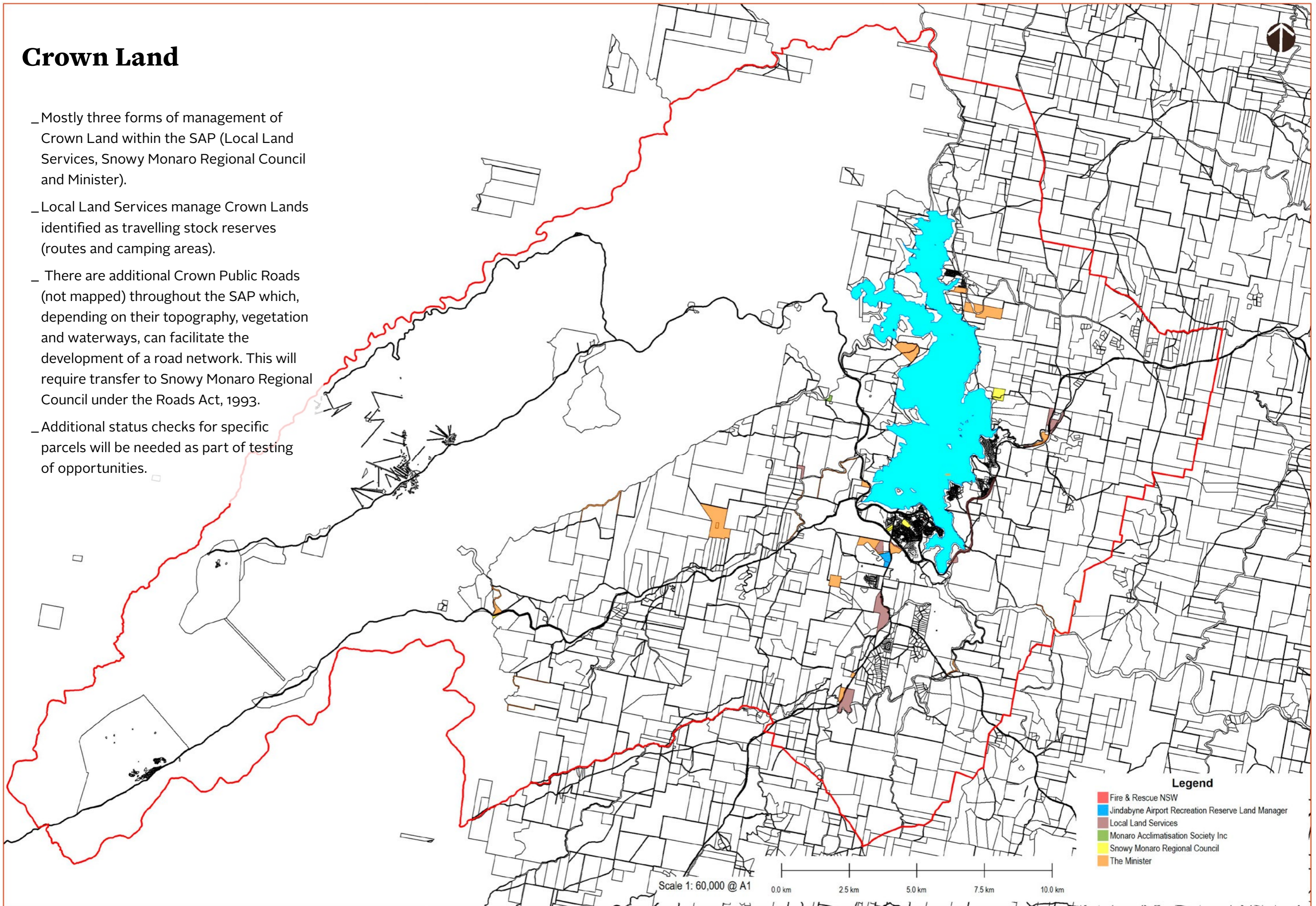
Strategic Land Ownership

- _ Aside from the Kosciuszko National Park, there are other significant areas of land under a handful of private owners, including Snowy Hydro.
- _ Most of these locations are adjacent Lake Jindabyne to the south and east of Jindabyne or at Crackenback.
- _ These land parcels have potential for catalyst and priority locations for tourism and township opportunities.



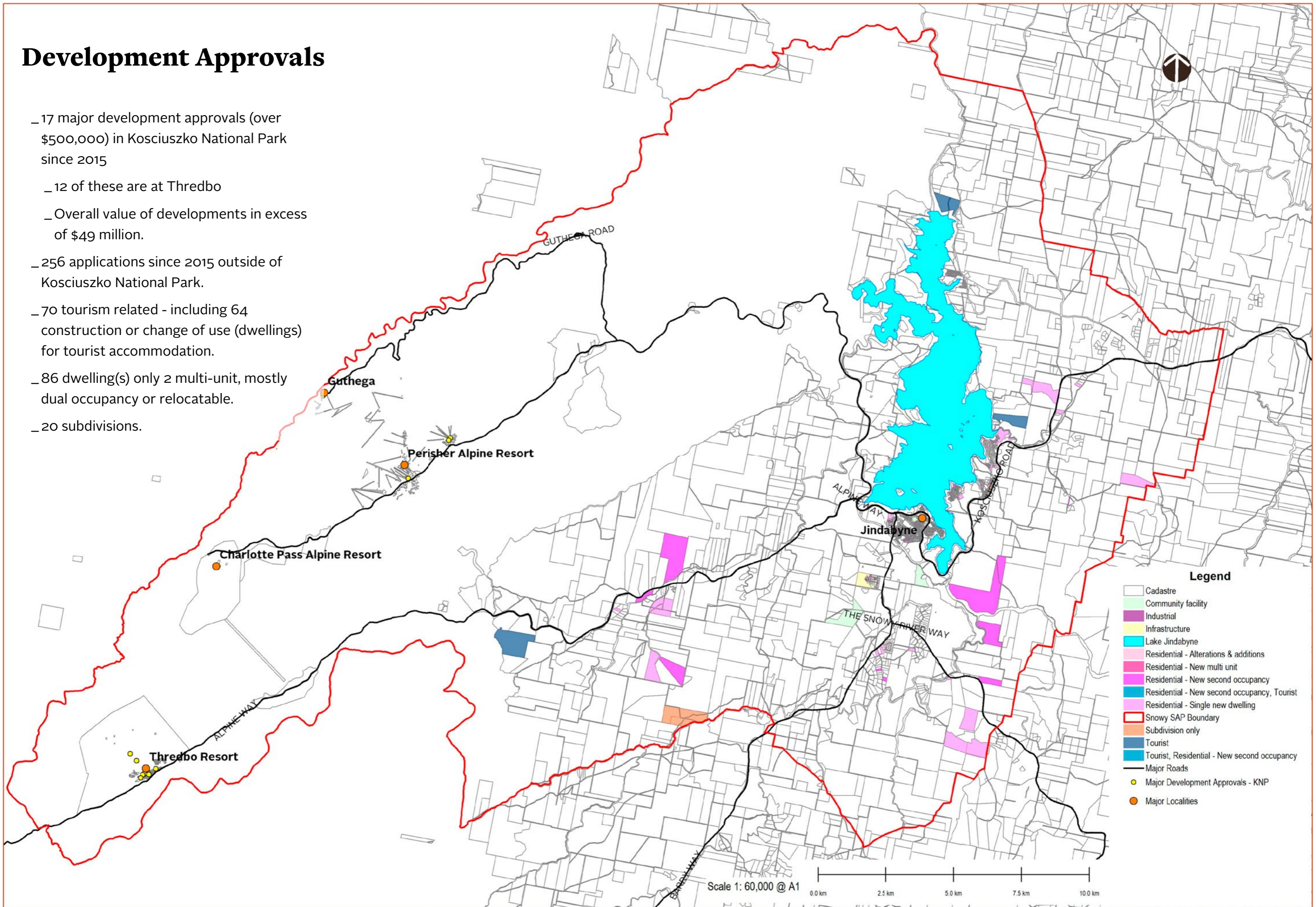
Crown Land

- _ Mostly three forms of management of Crown Land within the SAP (Local Land Services, Snowy Monaro Regional Council and Minister).
- _ Local Land Services manage Crown Lands identified as travelling stock reserves (routes and camping areas).
- _ There are additional Crown Public Roads (not mapped) throughout the SAP which, depending on their topography, vegetation and waterways, can facilitate the development of a road network. This will require transfer to Snowy Monaro Regional Council under the Roads Act, 1993.
- _ Additional status checks for specific parcels will be needed as part of testing of opportunities.



Development Approvals

- _ 17 major development approvals (over \$500,000) in Kosciuszko National Park since 2015
- _ 12 of these are at Thredbo
- _ Overall value of developments in excess of \$49 million.
- _ 256 applications since 2015 outside of Kosciuszko National Park.
- _ 70 tourism related - including 64 construction or change of use (dwellings) for tourist accommodation.
- _ 86 dwelling(s) only 2 multi-unit, mostly dual occupancy or relocatable.
- _ 20 subdivisions.

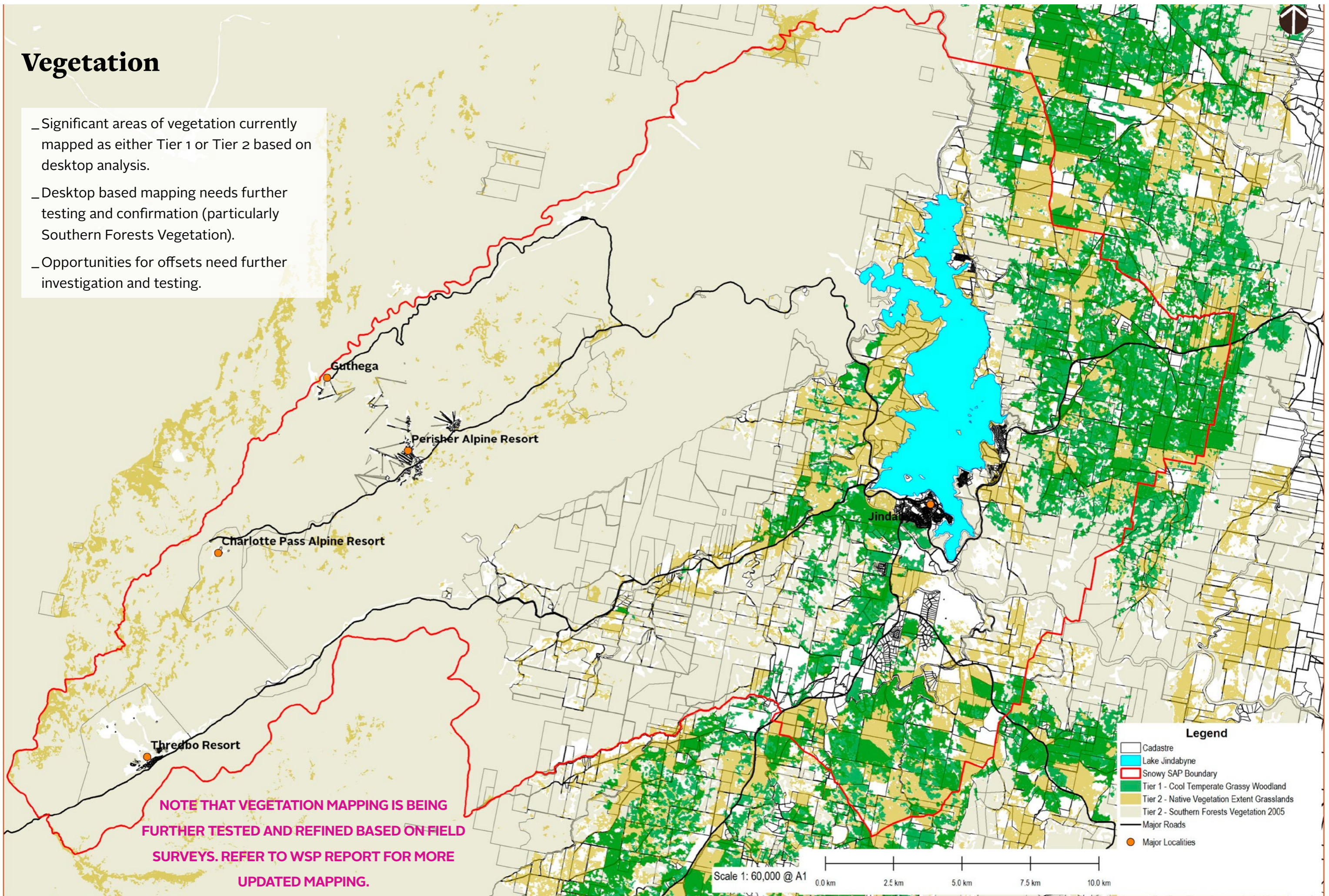


Legend

- Cadastre
- Community facility
- Industrial
- Infrastructure
- Lake Jindabyne
- Residential - Alterations & additions
- Residential - New multi unit
- Residential - New second occupancy
- Residential - New second occupancy, Tourist
- Residential - Single new dwelling
- Snowy SAP Boundary
- Subdivision only
- Tourist
- Tourist, Residential - New second occupancy
- Major Roads
- Major Development Approvals - KNP
- Major Localities

Vegetation

- _ Significant areas of vegetation currently mapped as either Tier 1 or Tier 2 based on desktop analysis.
- _ Desktop based mapping needs further testing and confirmation (particularly Southern Forests Vegetation).
- _ Opportunities for offsets need further investigation and testing.



Selected Viewsheds

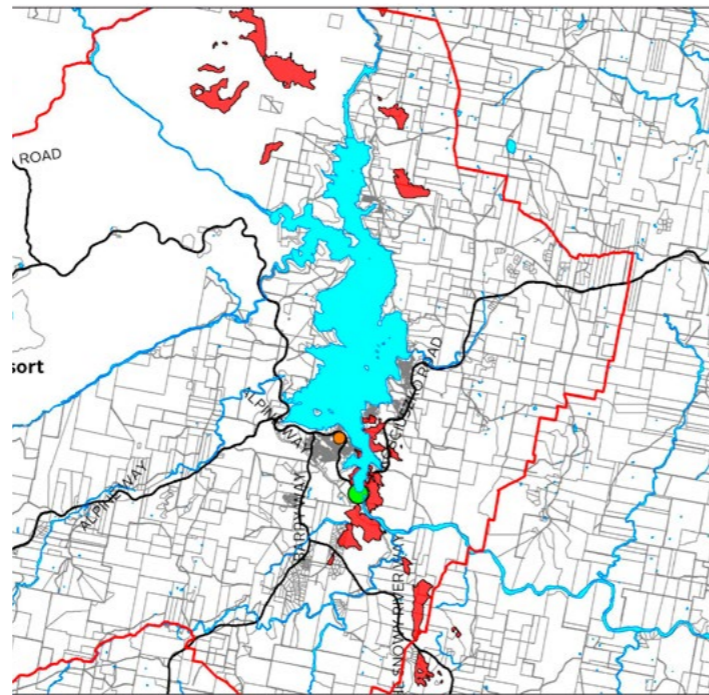
The following viewsheds were selected as key locations into either the Special Activation Precinct Investigation Area or approaches into Jindabyne.

The viewsheds demonstrate those locations that are highly visible from these strategic locations and point to a need to consider visibility in Structure Planning for the growth areas and new tourist facilities.

How to read these maps

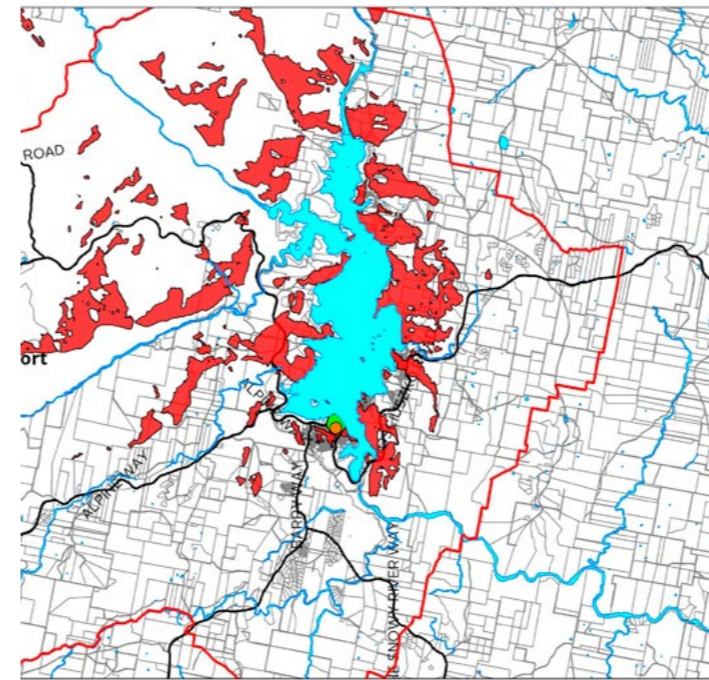
- _ Green dots represent the view location.
- _ Red areas represent the extent of land that is visible from the view point location (noting that some of these areas may be quite elevated and that is why they are visible, despite their distance).

It is noted that the Monero Ngarigo people may have particular views that are significant to them including views to Kalkite Mountain.



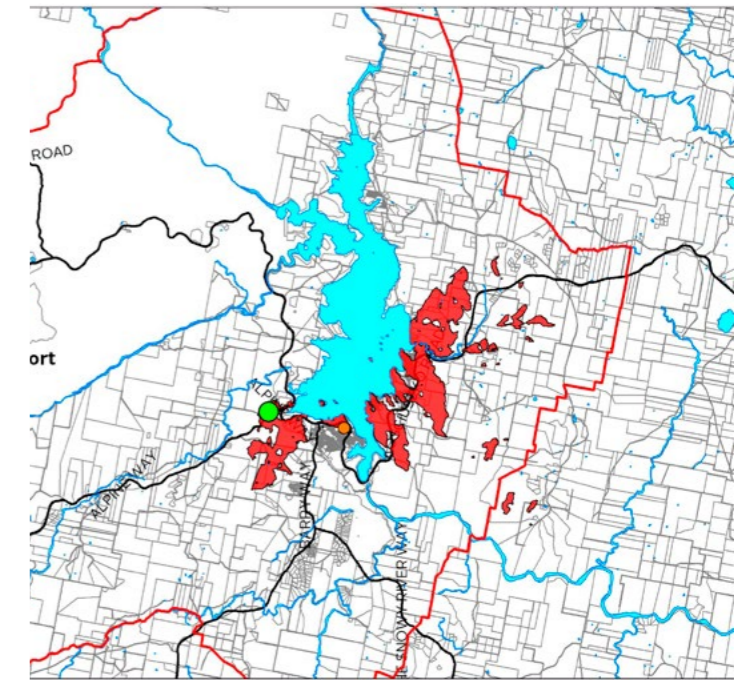
Jindabyne Dam Wall Approach

- _ Limited views to surrounding areas, include Waste Water Treatment Plant and tip sites.
- _ Areas south of Jindabyne not exposed to views from here.
- _ eastern slopes of Lake, including Tyrolean and East Jindabyne visible.



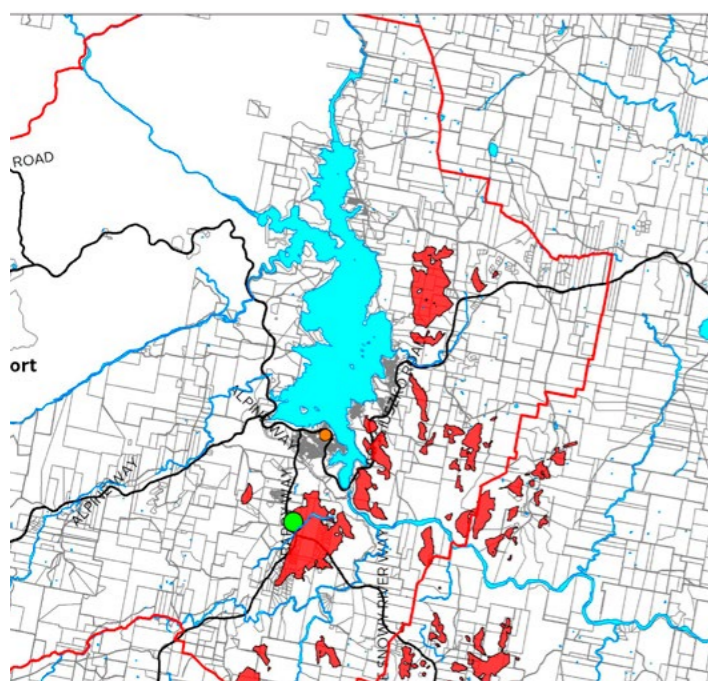
Jindabyne Town Centre

- _ Western and eastern lake edges highly visible.



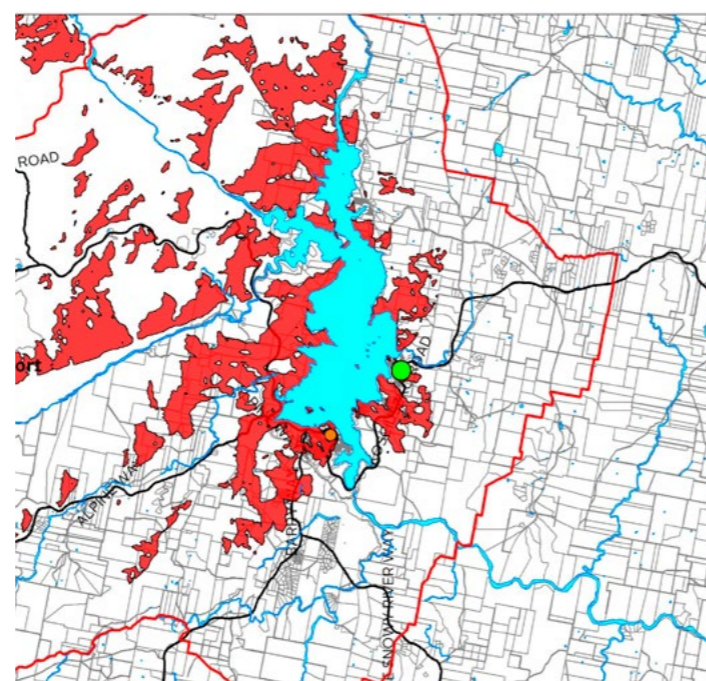
Alpine Road Western Township Approach

- _ Immediately surrounding land on western edge of town is visible, including western foreshore and parts of Town Centre.
- _ Views to eastern slopes of Lake Jindabyne, including Tyrolean and East Jindabyne.



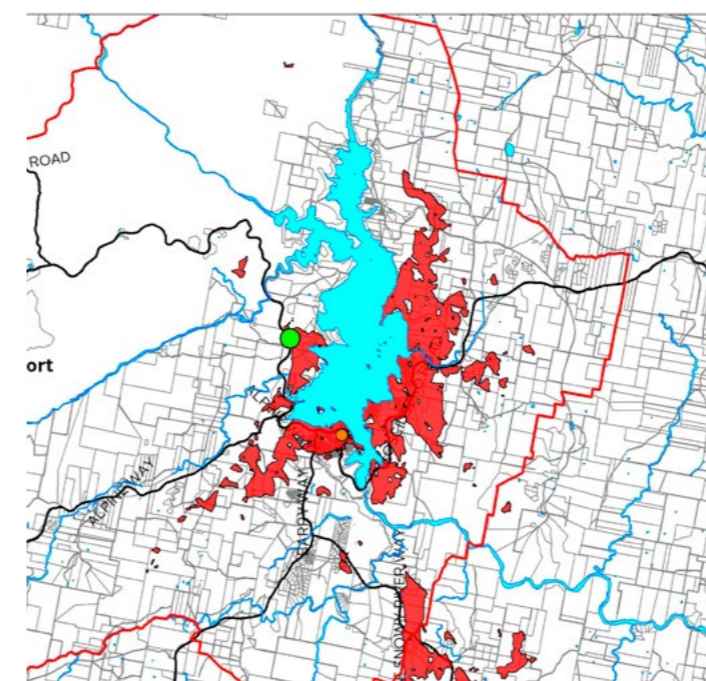
Barry Way Southern Approach

- _ Immediate foreground visible, but not Sport and Recreation site or township.
- _ Higher points of eastern plateau of Lake Jindabyne visible, but not settlements.



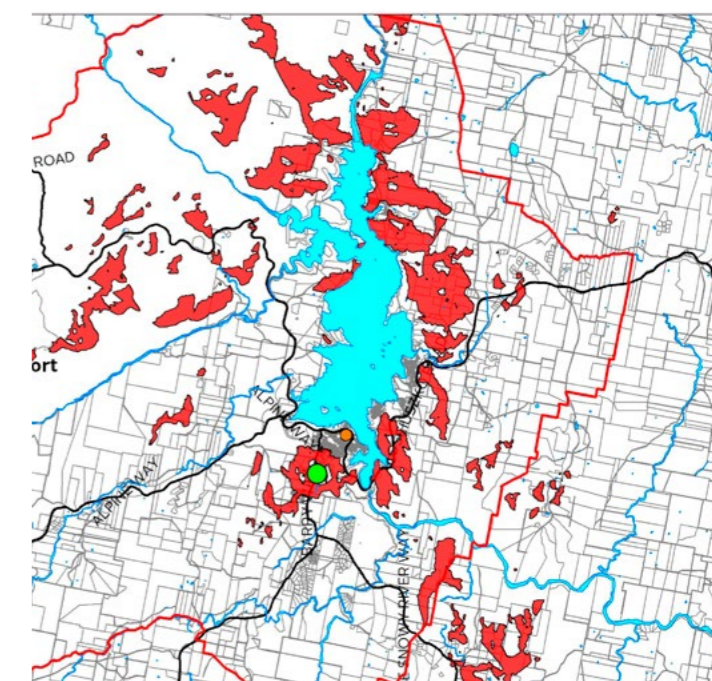
Kosciuszko Road Eastern Approach

- _ East Jindabyne and Tyrolean visible in foreground.
- _ Jindabyne town centre and slopes behind are visible.
- _ Longer range views across lake to western slopes and highlands / mountain ranges.



Kosciuszko Road Western Road Approach.

- _ Immediate western slopes of Lake visible from this location.
- _ Exposure to Jindabyne township and south-western highlands behind township.
- _ Views across all of eastern slopes of Lake Jindabyne, although elevated plateau with Airport site not visible.

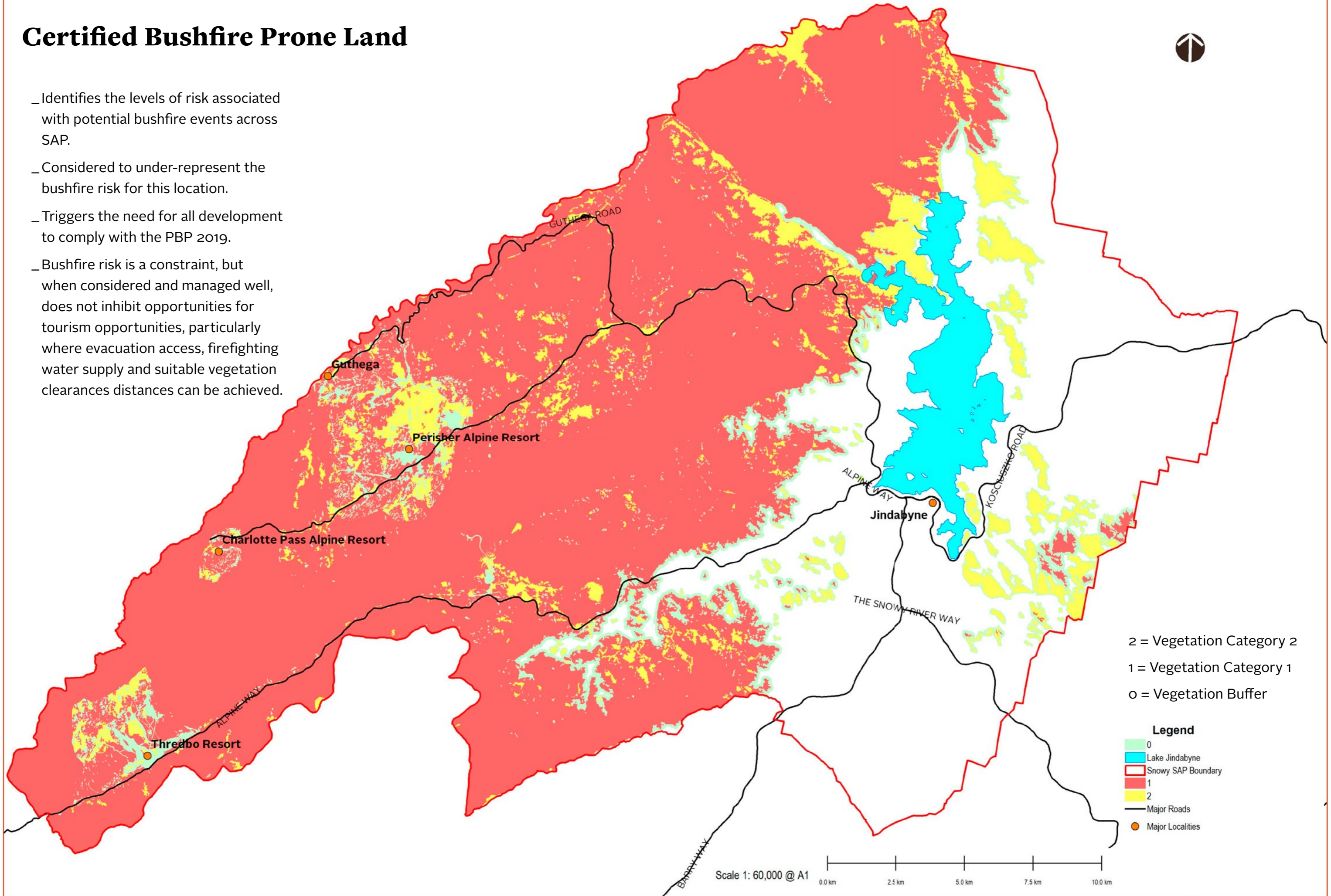


Barry Road (adjacent Sport and Recreation Centre site)

- _ Immediate views to lands at edge of township visible in foreground on both sides of Barry Way.
- _ Longer range views to eastern areas of Lake Jindabyne slopes, although existing settlements shielded.

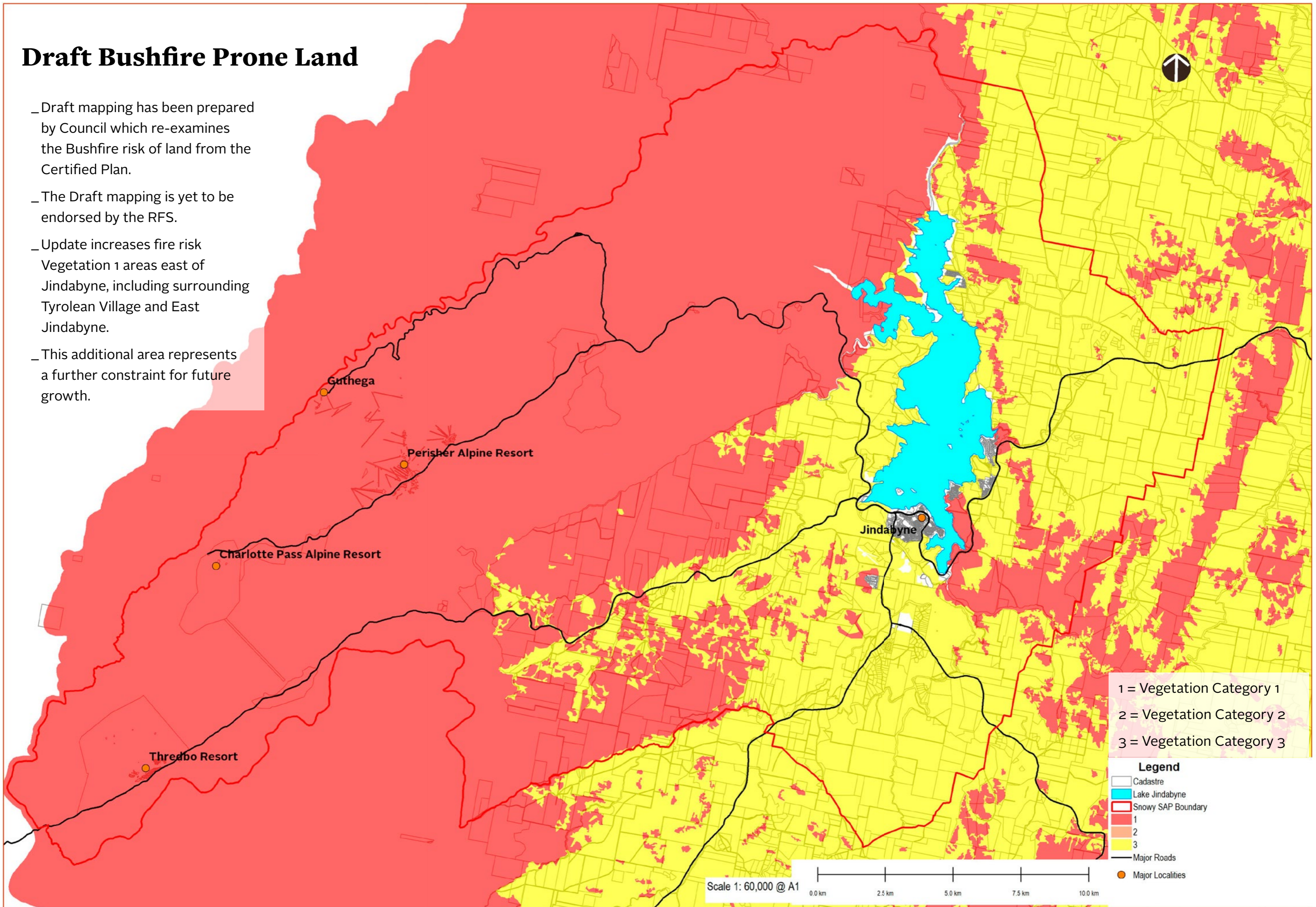
Certified Bushfire Prone Land

- _ Identifies the levels of risk associated with potential bushfire events across SAP.
- _ Considered to under-represent the bushfire risk for this location.
- _ Triggers the need for all development to comply with the PBP 2019.
- _ Bushfire risk is a constraint, but when considered and managed well, does not inhibit opportunities for tourism opportunities, particularly where evacuation access, firefighting water supply and suitable vegetation clearances distances can be achieved.



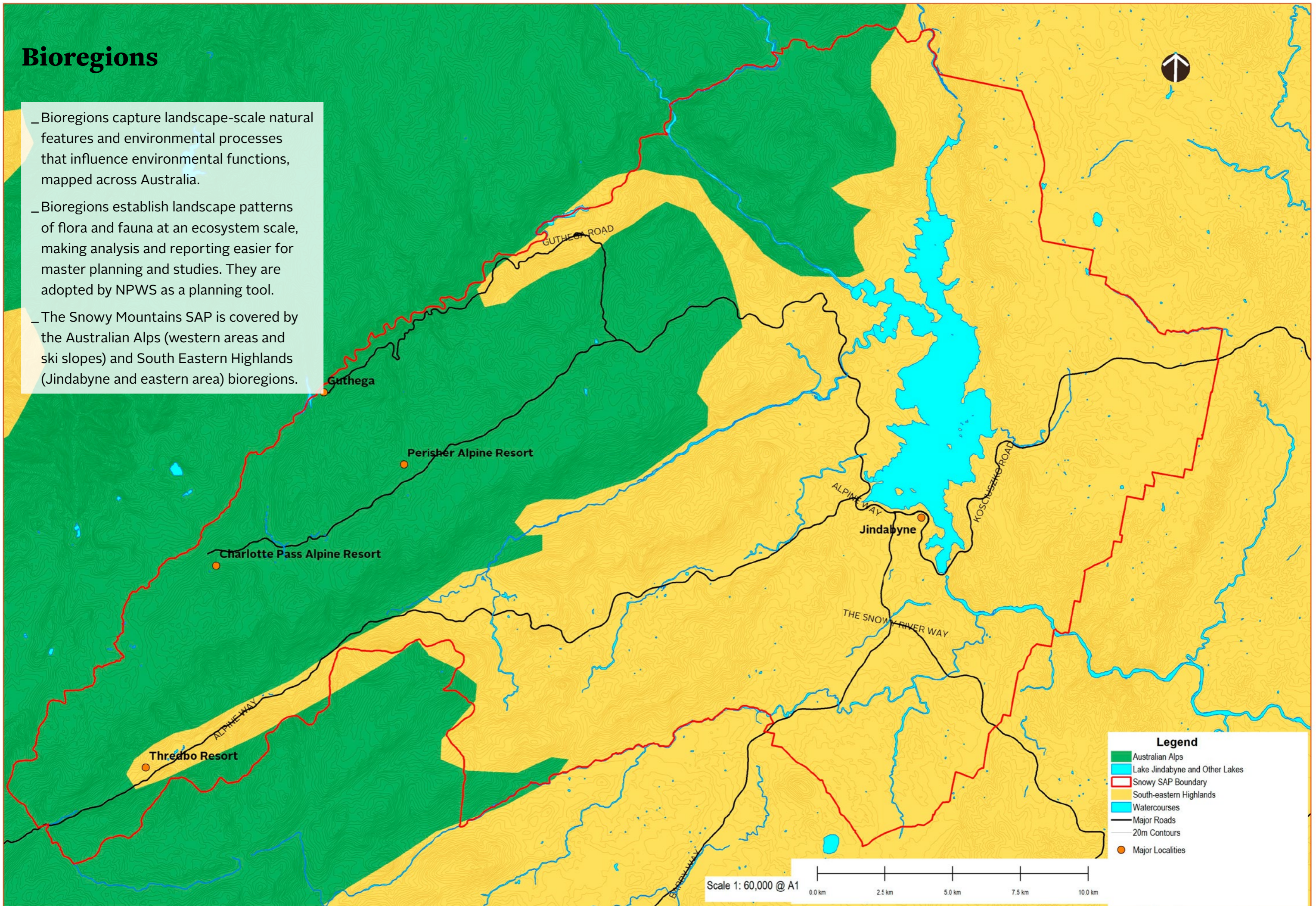
Draft Bushfire Prone Land

- _ Draft mapping has been prepared by Council which re-examines the Bushfire risk of land from the Certified Plan.
- _ The Draft mapping is yet to be endorsed by the RFS.
- _ Update increases fire risk Vegetation 1 areas east of Jindabyne, including surrounding Tyrolean Village and East Jindabyne.
- _ This additional area represents a further constraint for future growth.



Bioregions

- _ Bioregions capture landscape-scale natural features and environmental processes that influence environmental functions, mapped across Australia.
- _ Bioregions establish landscape patterns of flora and fauna at an ecosystem scale, making analysis and reporting easier for master planning and studies. They are adopted by NPWS as a planning tool.
- _ The Snowy Mountains SAP is covered by the Australian Alps (western areas and ski slopes) and South Eastern Highlands (Jindabyne and eastern area) bioregions.





Australian Alps Bioregion

Location

The Australian Alps bioregion covers all alpine habitats of Australia as well as the highest areas the Great Dividing Range across the southern extents of the Australian Capital Territory, the NSW Alps and the Victorian Alps. NSW has over half of the overall bioregion in area.

The western part of the SAP is located within the Australian Alps bioregion, and includes the ski resort settlements of Guthega, Perisher Valley, Smiggins Holes and Thredbo Village.

Description

The landscape is characterised by peaked ranges and broad forested valleys. It is the only true alpine environment in New South Wales, and includes Mt Kosciuszko (2,228m), Australia's highest peak.

All wetlands within the bioregions are near-pristine as they are protected within the Kosciuszko National Park.

Geology includes granites that have formed faulted, stepped ranges

at the point where the South Eastern Highlands in NSW turn west into Victoria. Soils within the bioregion reflect the climate, with lower areas consisting of texture contrast soils, grading to uniform organic soils and peats in higher areas.

Landscape and Biodiversity

There are four broad vegetation communities:

- **Alpine** (above 1,850m elevation) includes alpine herbfield and heathland communities, as well as short grasslands and boggy areas, with the climate preventing tall herbfields. There are over 200 distinctive species across the organic soil areas. Most species are bound by the area's unique climatic factors.
- **Subalpine** (between 1,400 and 1850m) is dominated by Snow Gum (*Eucalyptus pauciflora*) woodland with extensive open grasslands and heath. Much of the area has been subject to bushfire over the last 50 years including the recent bushfires. Areas of bogs and sodden areas feature sod tussock grasslands in the valleys which prevent larger tree growth.

- **Montane** (between 1,100 and 1,400m elevation) includes a diverse range of woodlands and forests including swamp gums (*E. ovata*), peppermint forests (*E. radiata*) and blue gums (*E. globulus ssp. bicostata*) on the lower slopes; through to mountain gum (*E. dalrympleana*), candlebark (*E. rubida*), ribbon gum (*E. viminalis*) and alpine ash (*E. delegatensis*) which eventually give way at altitude to pure stands of snow gum which grow directly below the treeline. The diversity of supporting lower and mid strata species reflects the diversity of valleys and ridges as well as aspect.

- **Tableland** (below 1,100m elevation) feature savannah woodlands across the lower slopes dominated by *E. melliodora*–*E. blakelyi* and *E. viminalis*–*E. rubida* associations, depending on underlying rock formations.

Sources:

– *The Bioregions of New South Wales, their biodiversity, conservation and history, undated*



Alpine vegetation at Charlotte's Pass
Source: C. Simpson-Young



Alpine herbfield in the Kosciuszko National Park - *Craspedia maxgrayi* or Billybutton
Source: C. Gibson



South-Eastern Highlands Bioregion

Location

The South-Eastern Highlands bioregion is located adjacent to coastal bioregions, as well as the Australian Alps to the west and north towards the Sydney area.

The eastern part of the SAP is located within this bioregion, and extends north as far as Orange and Lithgow, most of the ACT and includes Jindabyne within the Snowy Mountains SAP area.

The Lachlan, Macquarie, Murrumbidgee, Shoalhaven and Snowy Rivers all flow across the bioregion.

Description

The landscape is dominated by the Great Dividing Range at altitudes lower than the adjacent Australian Alps bioregions.

The geology is diverse, and the structural trend is north-south, with the prevailing topography reflecting this. Soils are also diverse and match the topographic pattern from highly textured contrast soils to alluvial loams and black clays on valley floors and include harsh yellow

texture contrast soils in general with shallow red brown to black stony loams on basalt around the Monaro area.

Landscape and Biodiversity

The South-Eastern Highlands is diverse, within the Monaro sub bioregion species include snow gum, ribbon gum, candle-bark gum, broad-leaved peppermint and mountain gum open woodlands with Kangaroo grass understorey.

White gum, mottled gum on hills, brown barrel and black ash forests in the east with west facing patches of dwarf Casuarina heathland.

Extensive grasslands of snow grass, spear grass and wallaby grass on the driest plains with clumps of snow gum amongst rocky outcrops.

Rocky outcrops support patches of black cypress pine (*Callitris endlicheri*), whereas cold plateaus support open woodlands of snow gum and black sallee (*E. stellulata*), with grasslands on the Monaro. River oak is widespread along streams.

There are 88 species listed in the schedules of the TSC Act in the South Eastern Highlands Bioregion (NSW NPWS 2001). Of these, 36 are listed as endangered, 50 are listed as vulnerable, and 2 species, *Stemmacantha australis* and *Galium australe*, are considered extinct.

Sources:

_ *The Bioregions of New South Wales, their biodiversity, conservation and history, undated*

_ *NSW NPWS, 2001*



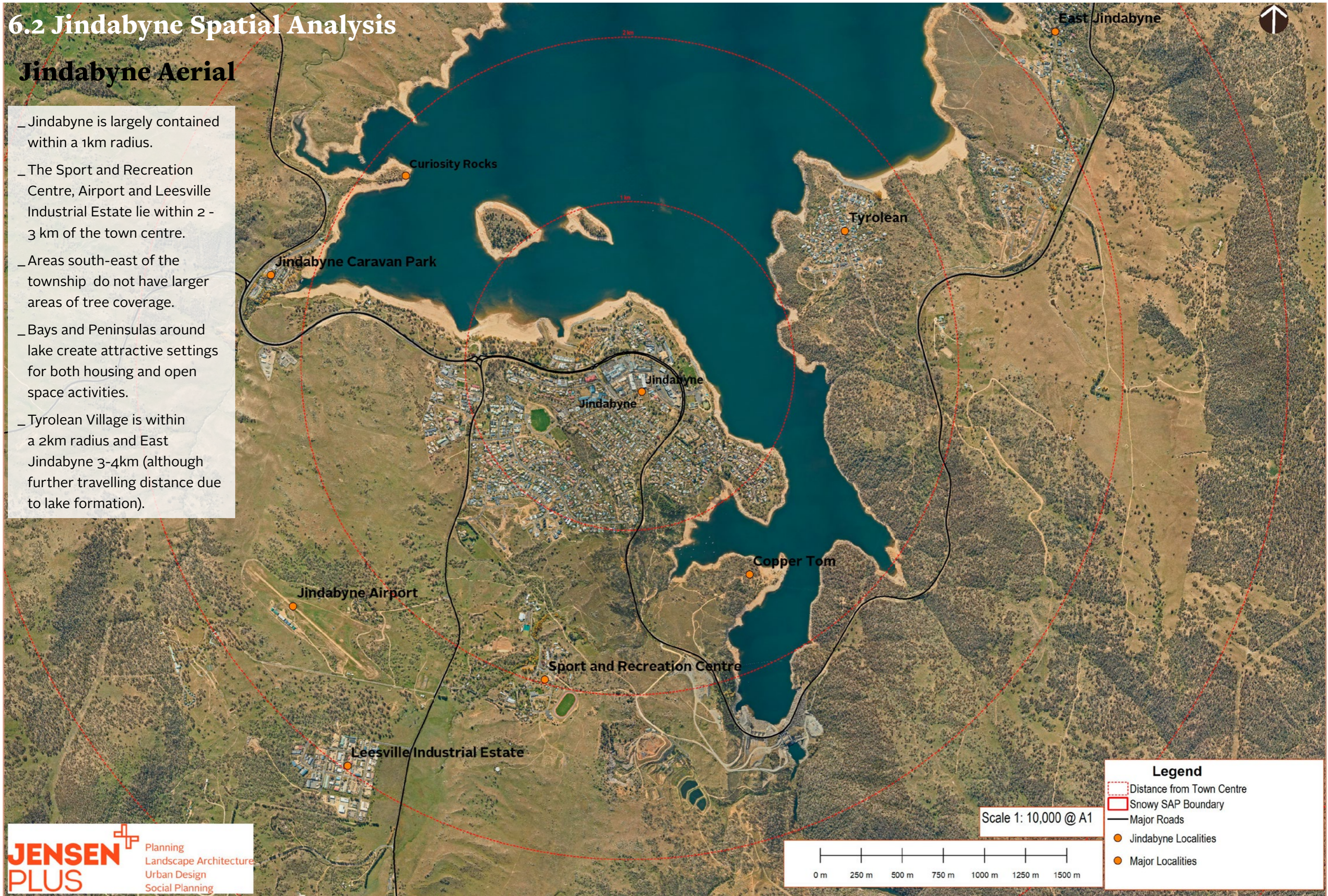
Snowy River, below the Jindabyne Dam

Source: DPIE

6.2 Jindabyne Spatial Analysis

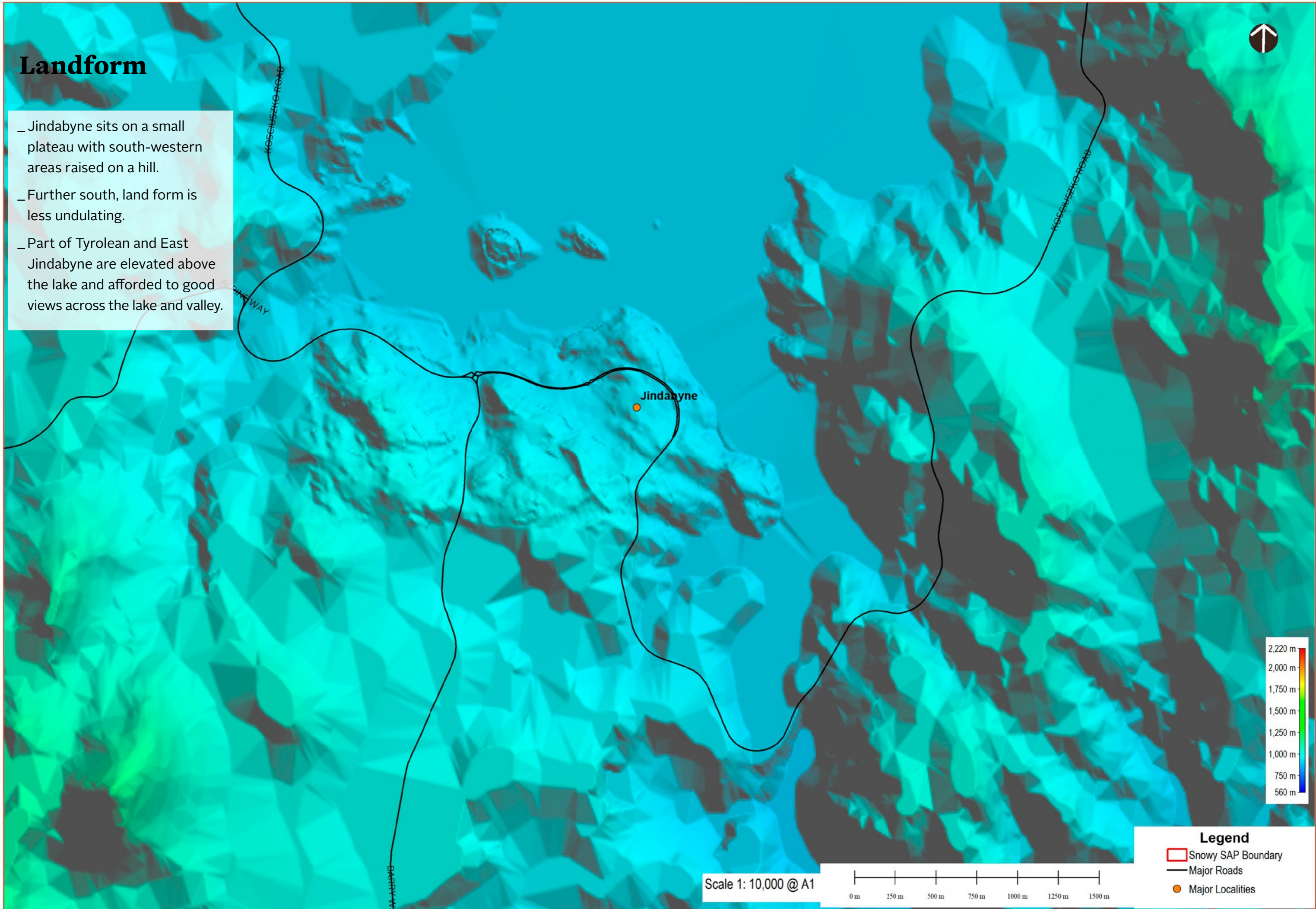
Jindabyne Aerial

- _ Jindabyne is largely contained within a 1km radius.
- _ The Sport and Recreation Centre, Airport and Leesville Industrial Estate lie within 2 - 3 km of the town centre.
- _ Areas south-east of the township do not have larger areas of tree coverage.
- _ Bays and Peninsulas around lake create attractive settings for both housing and open space activities.
- _ Tyrolean Village is within a 2km radius and East Jindabyne 3-4km (although further travelling distance due to lake formation).

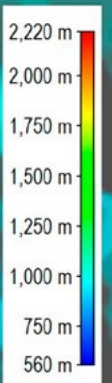


Landform

- _ Jindabyne sits on a small plateau with south-western areas raised on a hill.
- _ Further south, land form is less undulating.
- _ Part of Tyrolean and East Jindabyne are elevated above the lake and afforded to good views across the lake and valley.



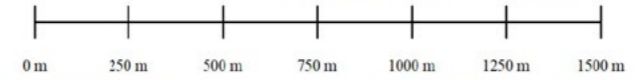
Jindabyne



Legend

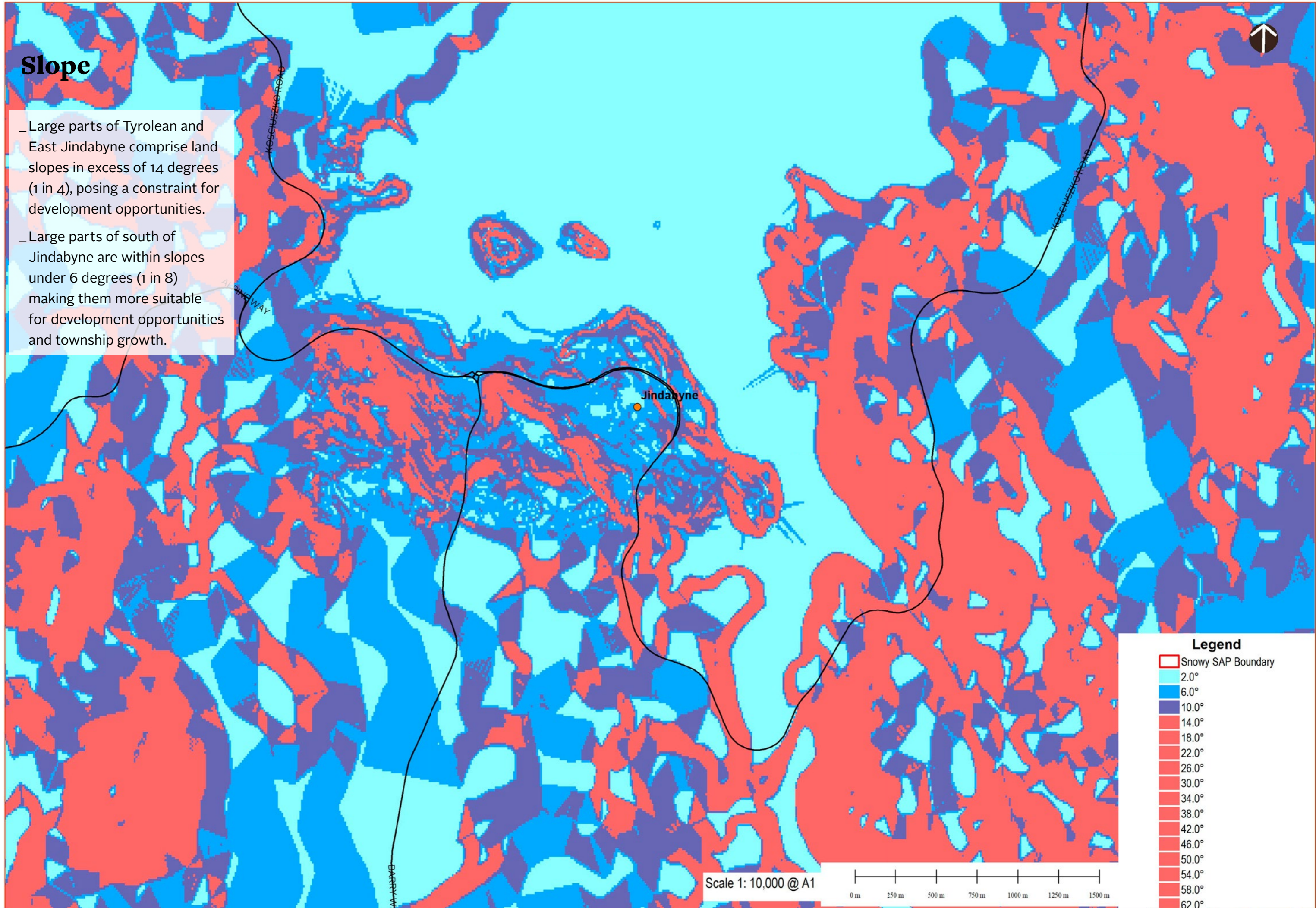
- Snowy SAP Boundary
- Major Roads
- Major Localities

Scale 1: 10,000 @ A1

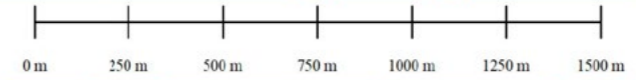


Slope

- _ Large parts of Tyrolean and East Jindabyne comprise land slopes in excess of 14 degrees (1 in 4), posing a constraint for development opportunities.
- _ Large parts of south of Jindabyne are within slopes under 6 degrees (1 in 8) making them more suitable for development opportunities and township growth.



Scale 1: 10,000 @ A1

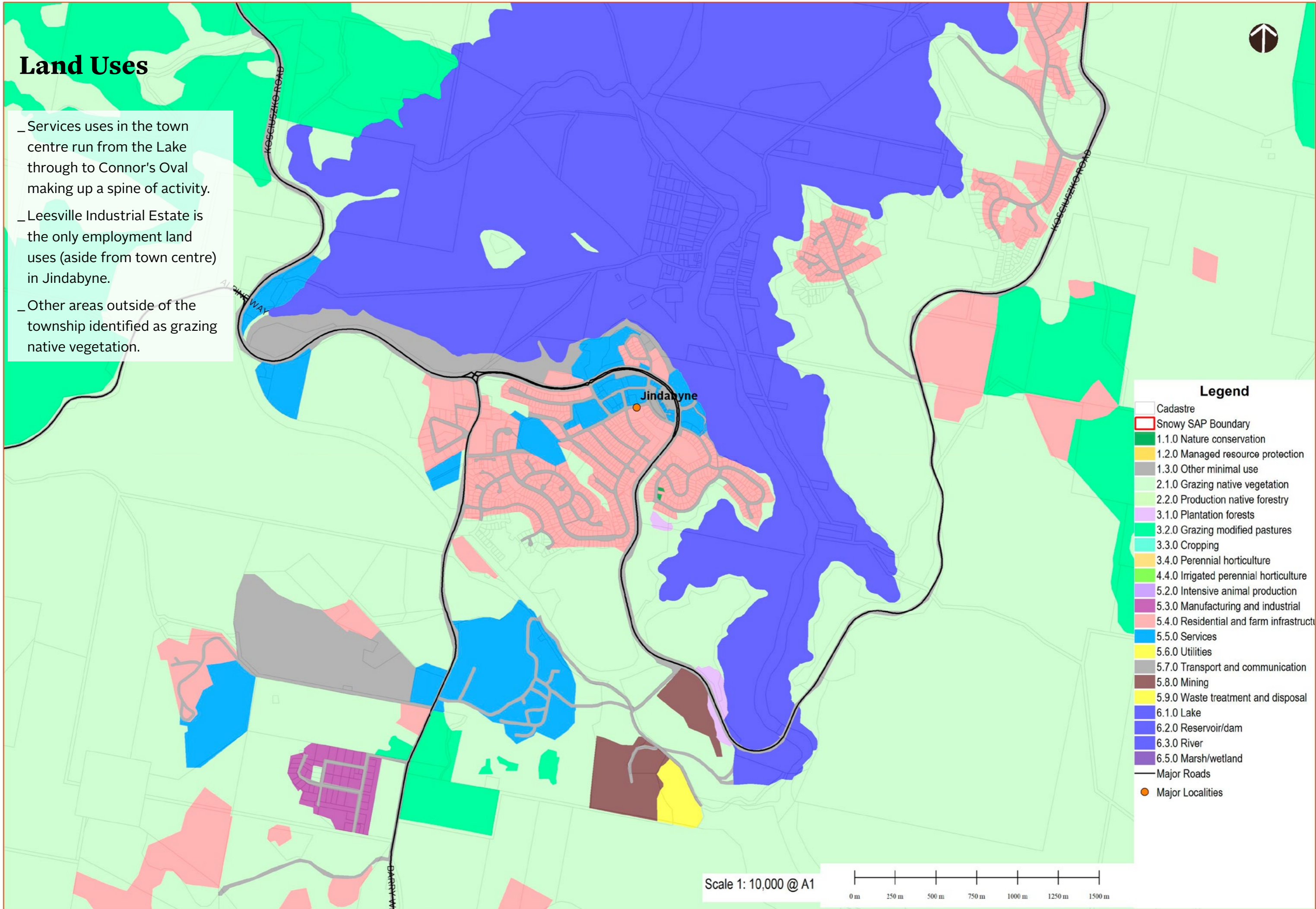


Legend

- Snowy SAP Boundary
- 2.0°
- 6.0°
- 10.0°
- 14.0°
- 18.0°
- 22.0°
- 26.0°
- 30.0°
- 34.0°
- 38.0°
- 42.0°
- 46.0°
- 50.0°
- 54.0°
- 58.0°
- 62.0°

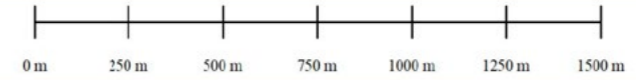
Land Uses

- _ Services uses in the town centre run from the Lake through to Connor's Oval making up a spine of activity.
- _ Leesville Industrial Estate is the only employment land uses (aside from town centre) in Jindabyne.
- _ Other areas outside of the township identified as grazing native vegetation.



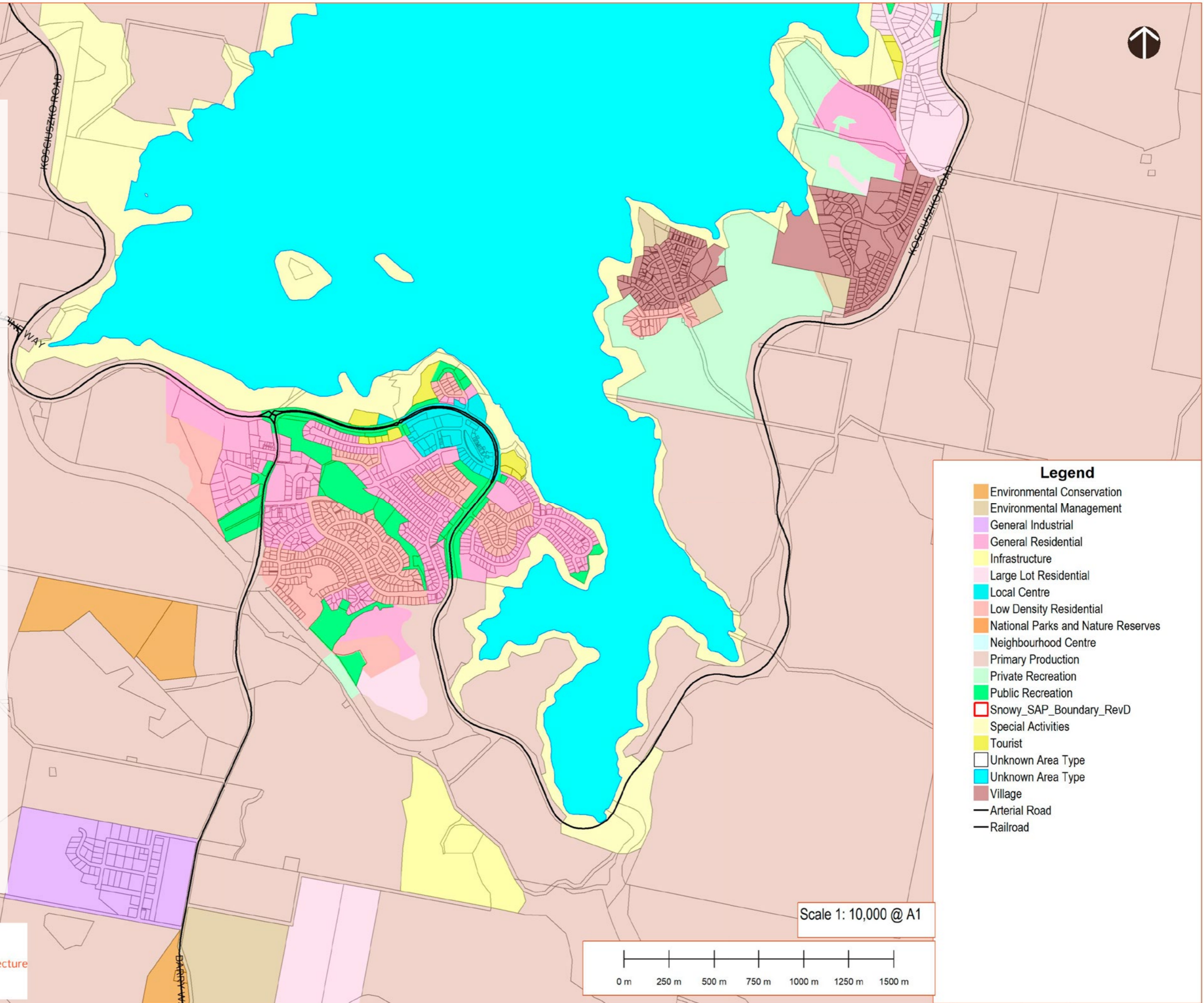
Legend	
[White box]	Cadastral
[Red outline]	Snowy SAP Boundary
[Dark Green]	1.1.0 Nature conservation
[Yellow]	1.2.0 Managed resource protection
[Grey]	1.3.0 Other minimal use
[Light Green]	2.1.0 Grazing native vegetation
[Light Green]	2.2.0 Production native forestry
[Purple]	3.1.0 Plantation forests
[Green]	3.2.0 Grazing modified pastures
[Cyan]	3.3.0 Cropping
[Orange]	3.4.0 Perennial horticulture
[Light Green]	4.4.0 Irrigated perennial horticulture
[Purple]	5.2.0 Intensive animal production
[Purple]	5.3.0 Manufacturing and industrial
[Pink]	5.4.0 Residential and farm infrastructure
[Blue]	5.5.0 Services
[Yellow]	5.6.0 Utilities
[Grey]	5.7.0 Transport and communication
[Brown]	5.8.0 Mining
[Yellow]	5.9.0 Waste treatment and disposal
[Dark Blue]	6.1.0 Lake
[Blue]	6.2.0 Reservoir/dam
[Blue]	6.3.0 River
[Purple]	6.5.0 Marsh/wetland
[Black line]	Major Roads
[Orange dot]	Major Localities

Scale 1: 10,000 @ A1



Zoning

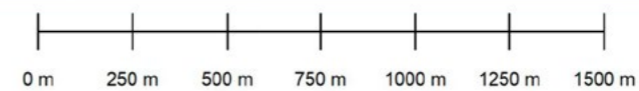
- _ Residential (including Low Density) Zones are largely developed.
- _ Very limited large lot zoned land capacity to cater for more growth.
- _ Local Centre Zone extent prevents growth of non-residential uses into neighbouring areas.
- _ Residential Zone limits further intensification of development, particularly areas of Low Density Residential Zone.
- _ East Jindabyne Village and General Residential and Large Lot Residential has some undeveloped areas, but still limited.
- _ Tyrolean Village surrounded by large areas of Private Recreation zone - represents possible opportunity?
- _ Sport and Recreation Site located in Primary Production Zone and is not ideal zoning for facility of this nature.
- _ New zoning Regime from SAP needs to provide greater flexibility for growth in town centre, and for residential development typologies.



Legend

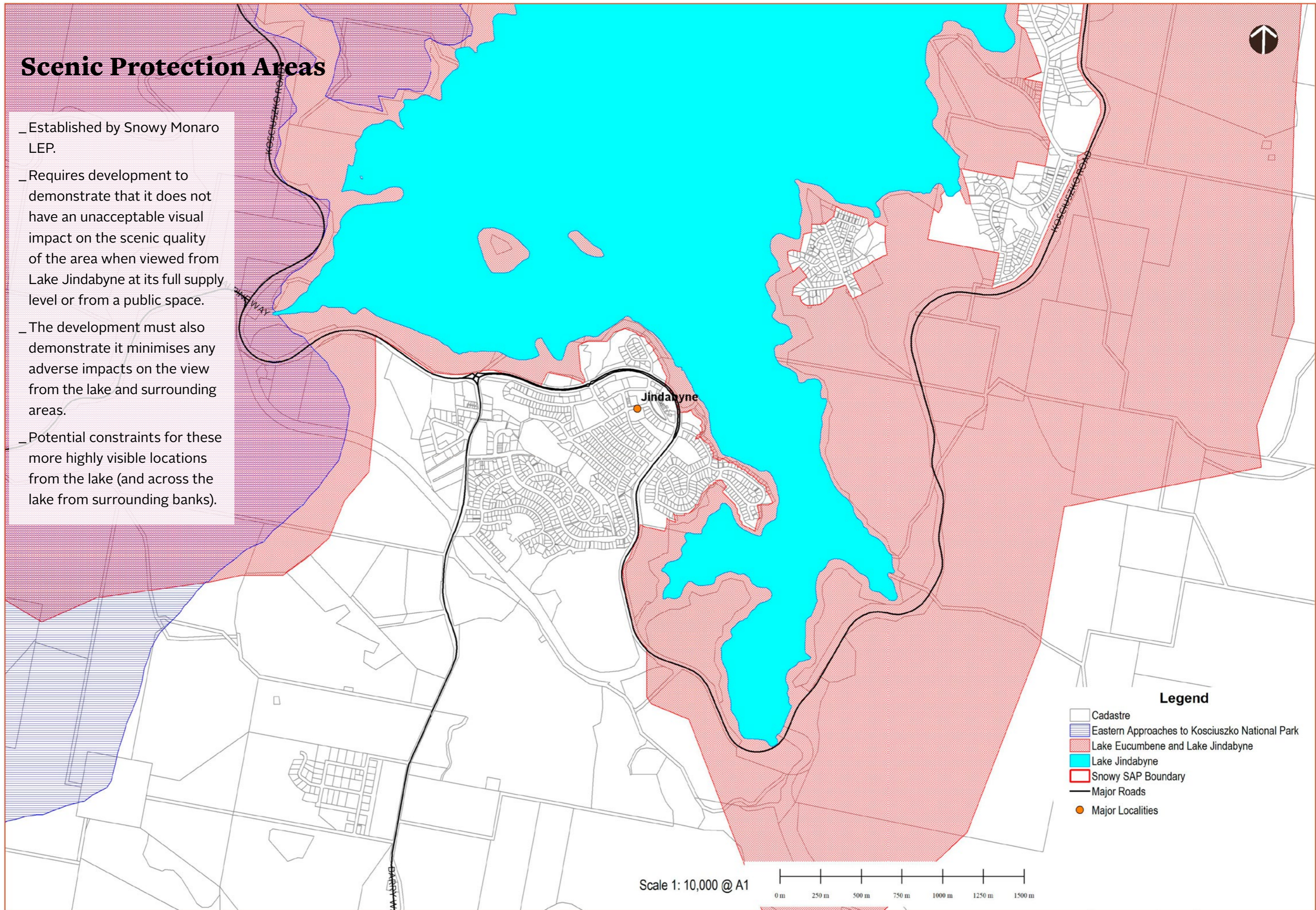
- Environmental Conservation
- Environmental Management
- General Industrial
- General Residential
- Infrastructure
- Large Lot Residential
- Local Centre
- Low Density Residential
- National Parks and Nature Reserves
- Neighbourhood Centre
- Primary Production
- Private Recreation
- Public Recreation
- Snowy_SAP_Boundary_RevD
- Special Activities
- Tourist
- Unknown Area Type
- Unknown Area Type
- Village
- Arterial Road
- Railroad

Scale 1: 10,000 @ A1



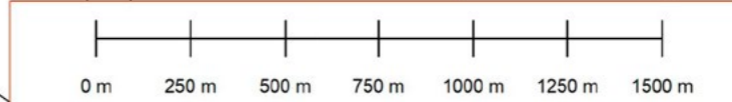
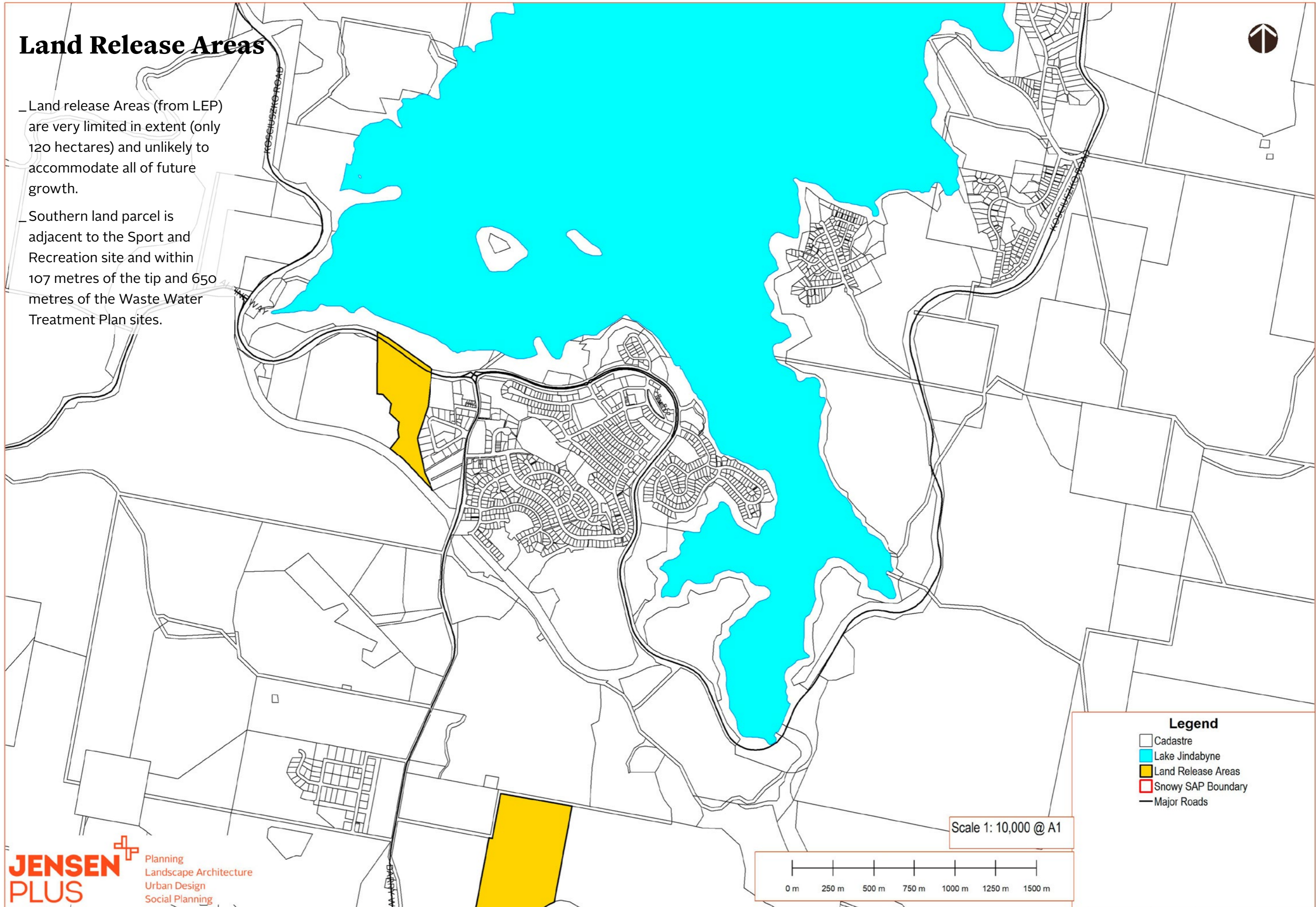
Scenic Protection Areas

- _ Established by Snowy Monaro LEP.
- _ Requires development to demonstrate that it does not have an unacceptable visual impact on the scenic quality of the area when viewed from Lake Jindabyne at its full supply level or from a public space.
- _ The development must also demonstrate it minimises any adverse impacts on the view from the lake and surrounding areas.
- _ Potential constraints for these more highly visible locations from the lake (and across the lake from surrounding banks).



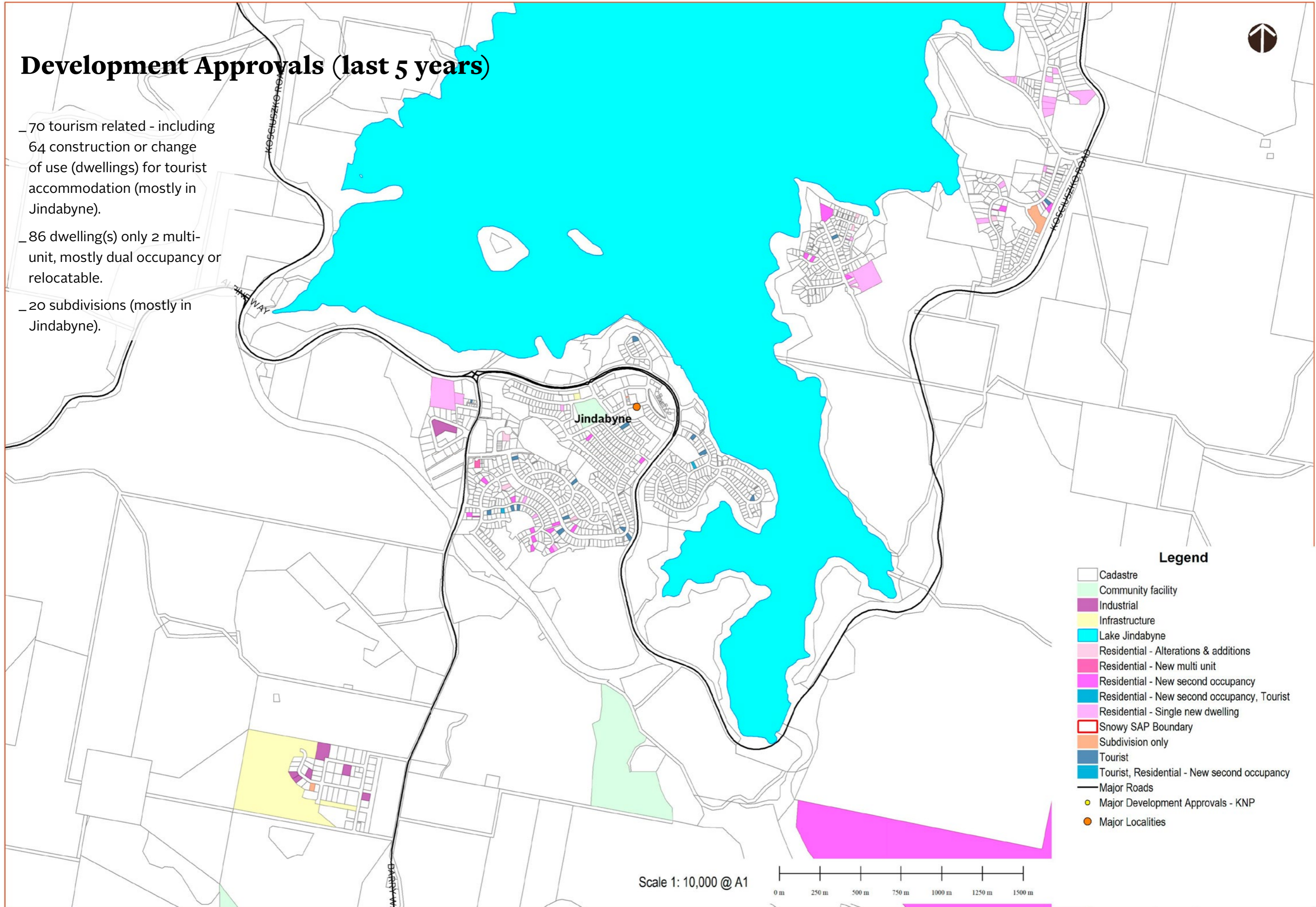
Land Release Areas

- _ Land release Areas (from LEP) are very limited in extent (only 120 hectares) and unlikely to accommodate all of future growth.
- _ Southern land parcel is adjacent to the Sport and Recreation site and within 107 metres of the tip and 650 metres of the Waste Water Treatment Plan sites.



Development Approvals (last 5 years)

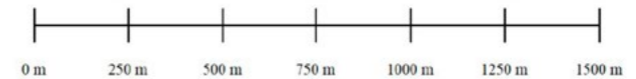
- _ 70 tourism related - including 64 construction or change of use (dwellings) for tourist accommodation (mostly in Jindabyne).
- _ 86 dwelling(s) only 2 multi-unit, mostly dual occupancy or relocatable.
- _ 20 subdivisions (mostly in Jindabyne).



Legend

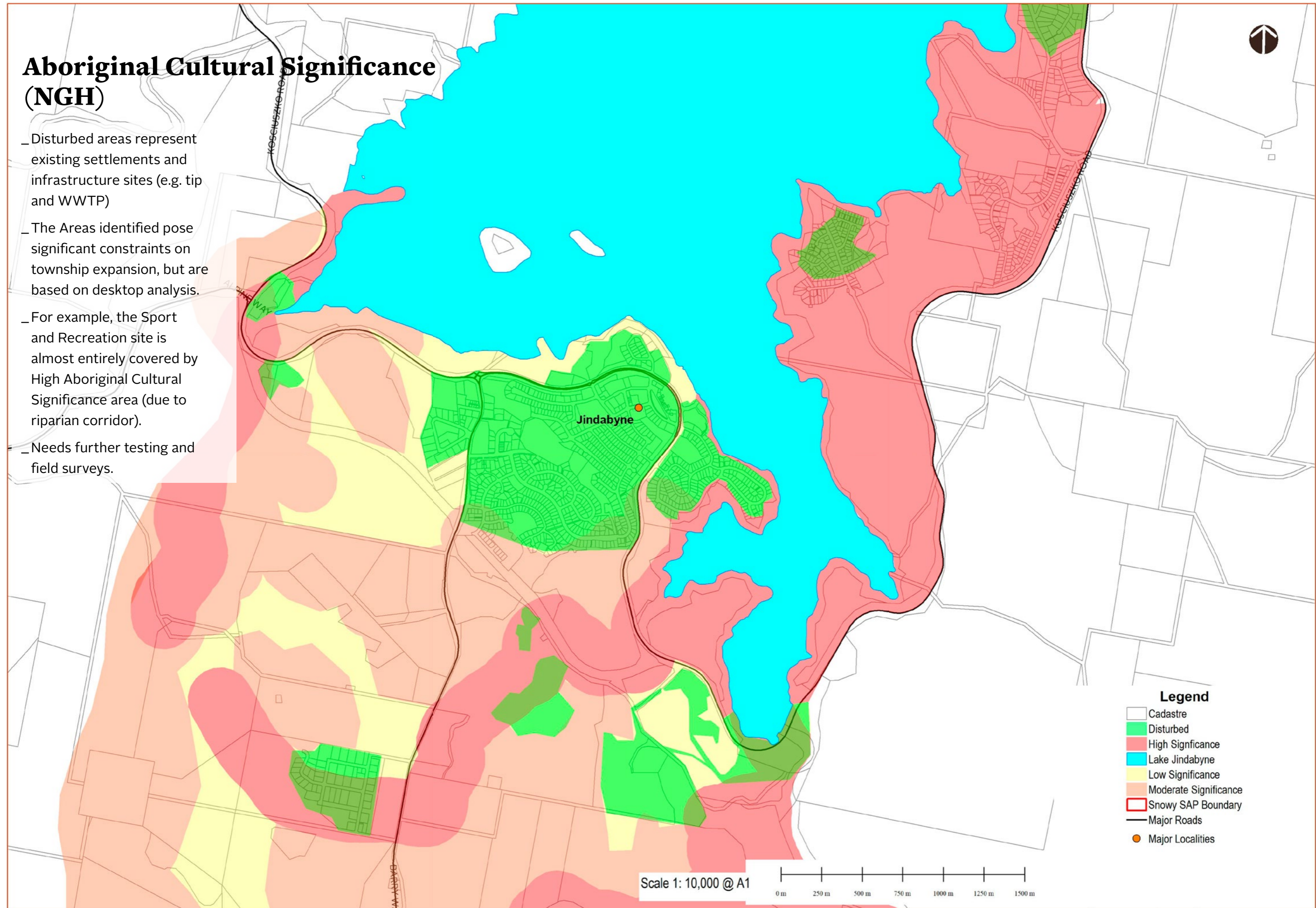
- Cadastre
- Community facility
- Industrial
- Infrastructure
- Lake Jindabyne
- Residential - Alterations & additions
- Residential - New multi unit
- Residential - New second occupancy
- Residential - New second occupancy, Tourist
- Residential - Single new dwelling
- Snowy SAP Boundary
- Subdivision only
- Tourist
- Tourist, Residential - New second occupancy
- Major Roads
- Major Development Approvals - KNP
- Major Localities

Scale 1: 10,000 @ A1



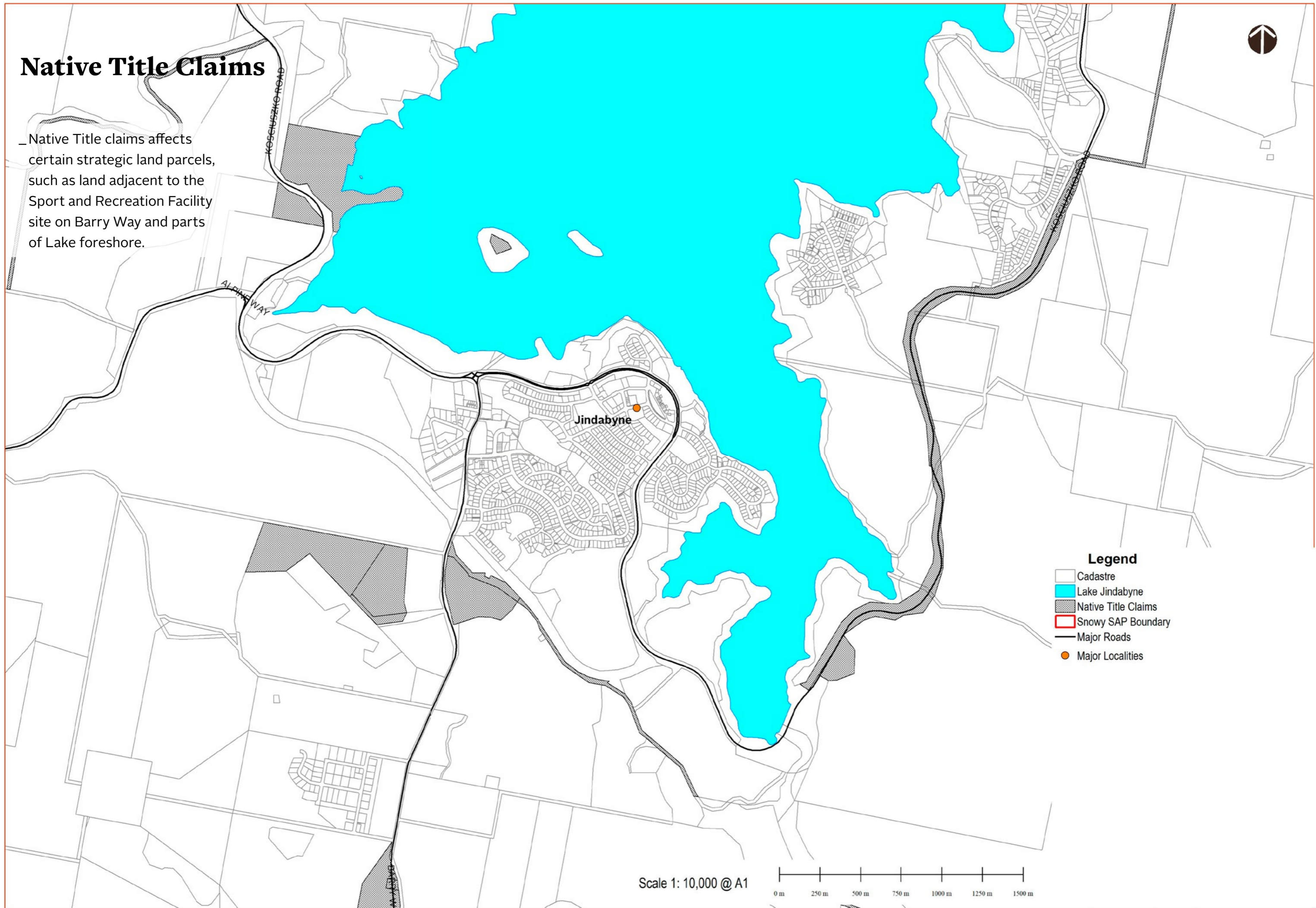
Aboriginal Cultural Significance (NGH)

- _ Disturbed areas represent existing settlements and infrastructure sites (e.g. tip and WWTP)
- _ The Areas identified pose significant constraints on township expansion, but are based on desktop analysis.
- _ For example, the Sport and Recreation site is almost entirely covered by High Aboriginal Cultural Significance area (due to riparian corridor).
- _ Needs further testing and field surveys.



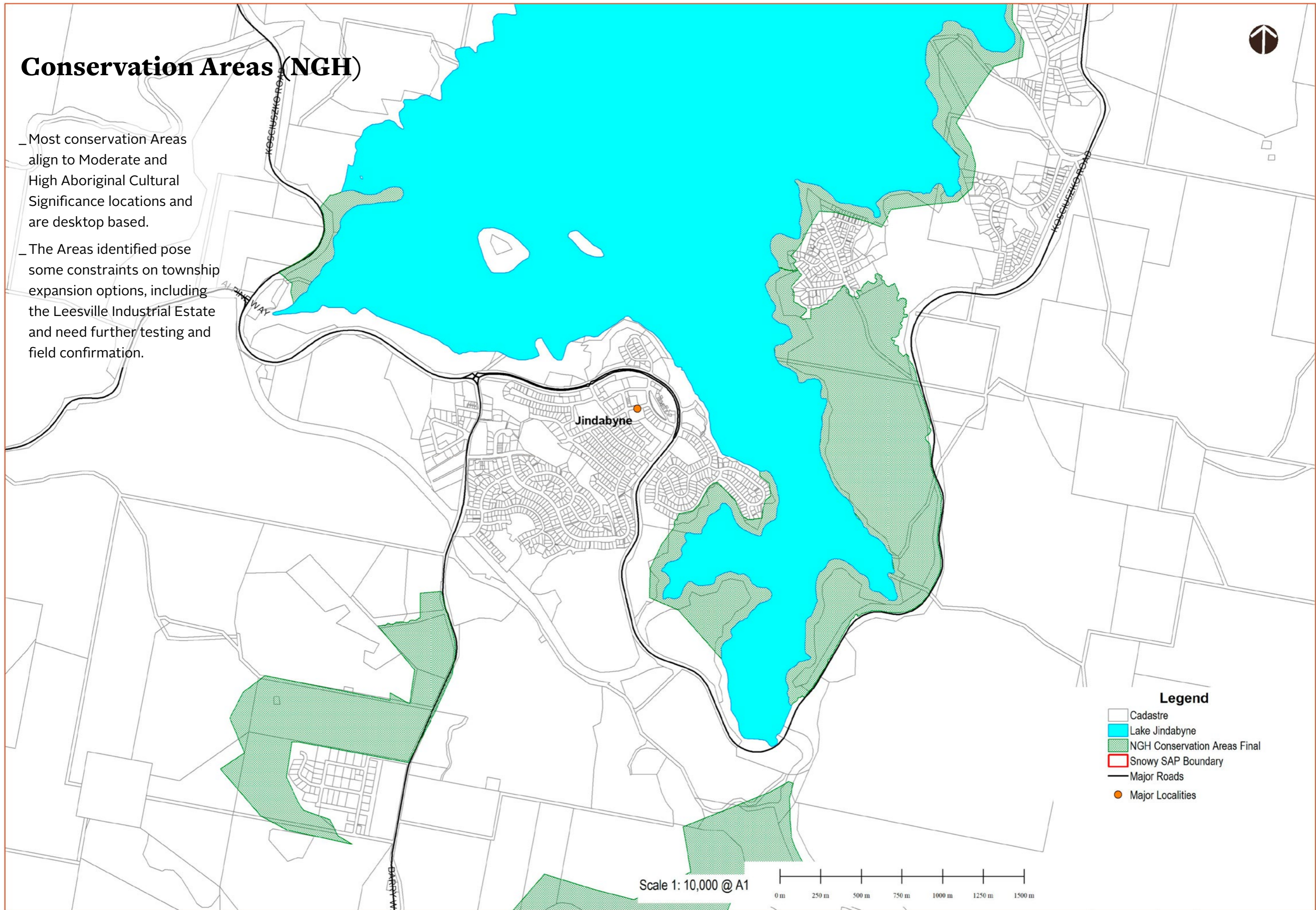
Native Title Claims

_ Native Title claims affects certain strategic land parcels, such as land adjacent to the Sport and Recreation Facility site on Barry Way and parts of Lake foreshore.



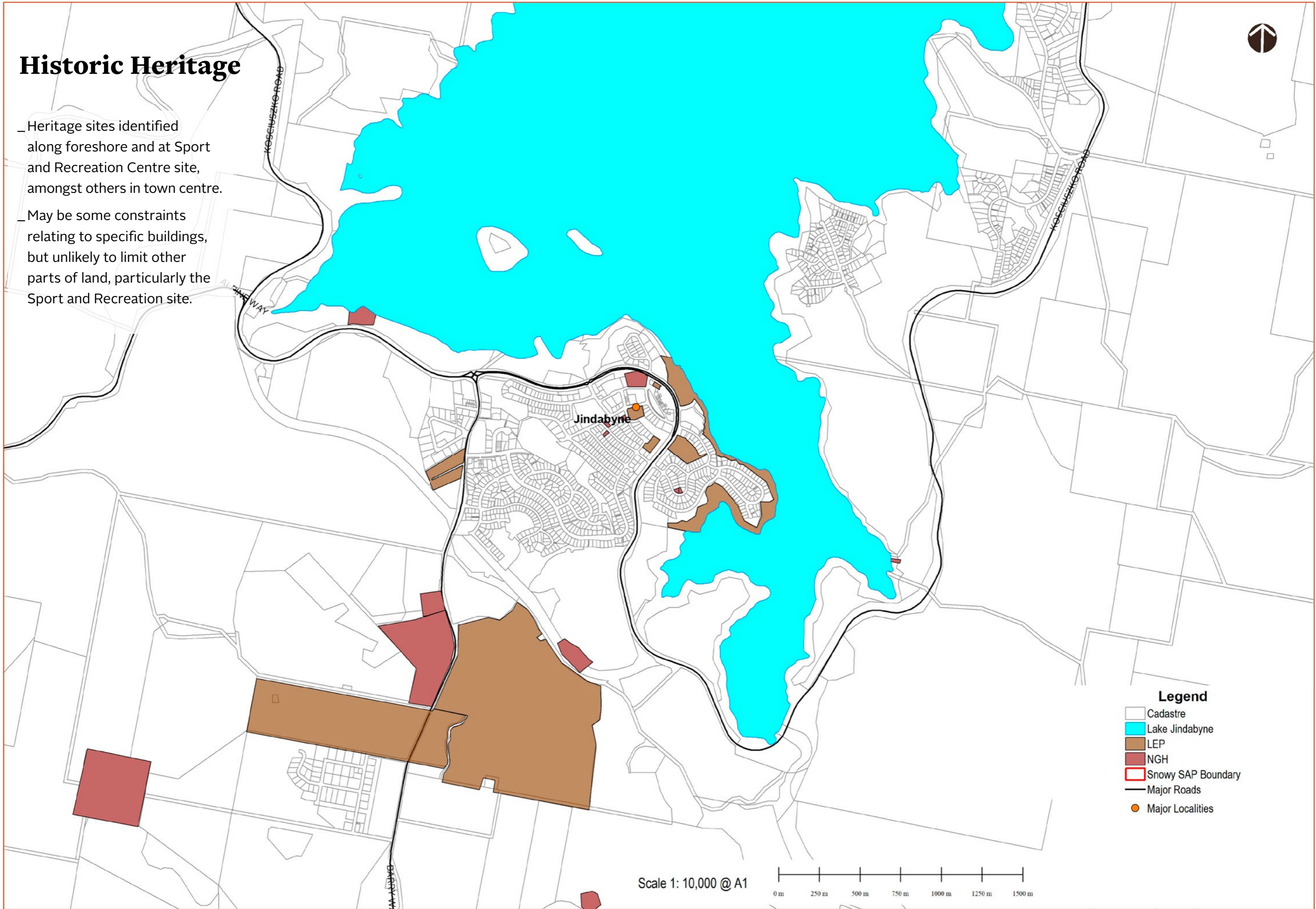
Conservation Areas (NGH)

- _ Most conservation Areas align to Moderate and High Aboriginal Cultural Significance locations and are desktop based.
- _ The Areas identified pose some constraints on township expansion options, including the Leesville Industrial Estate and need further testing and field confirmation.



Historic Heritage

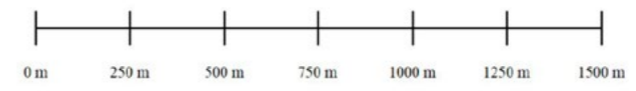
- _ Heritage sites identified along foreshore and at Sport and Recreation Centre site, amongst others in town centre.
- _ May be some constraints relating to specific buildings, but unlikely to limit other parts of land, particularly the Sport and Recreation site.



Legend

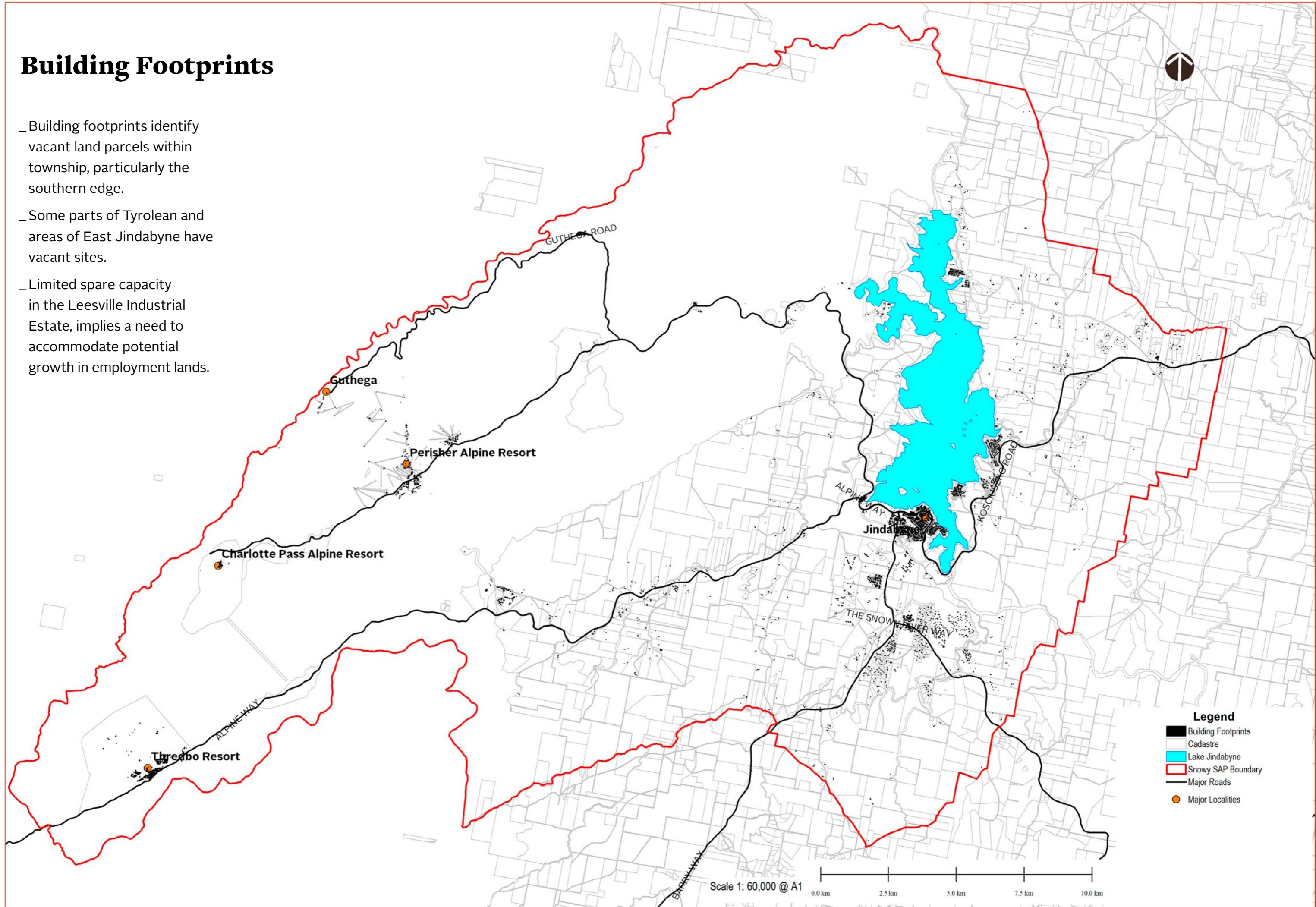
- Cadastre
- Lake Jindabyne
- LEP
- NGH
- Snowy SAP Boundary
- Major Roads
- Major Localities

Scale 1: 10,000 @ A1



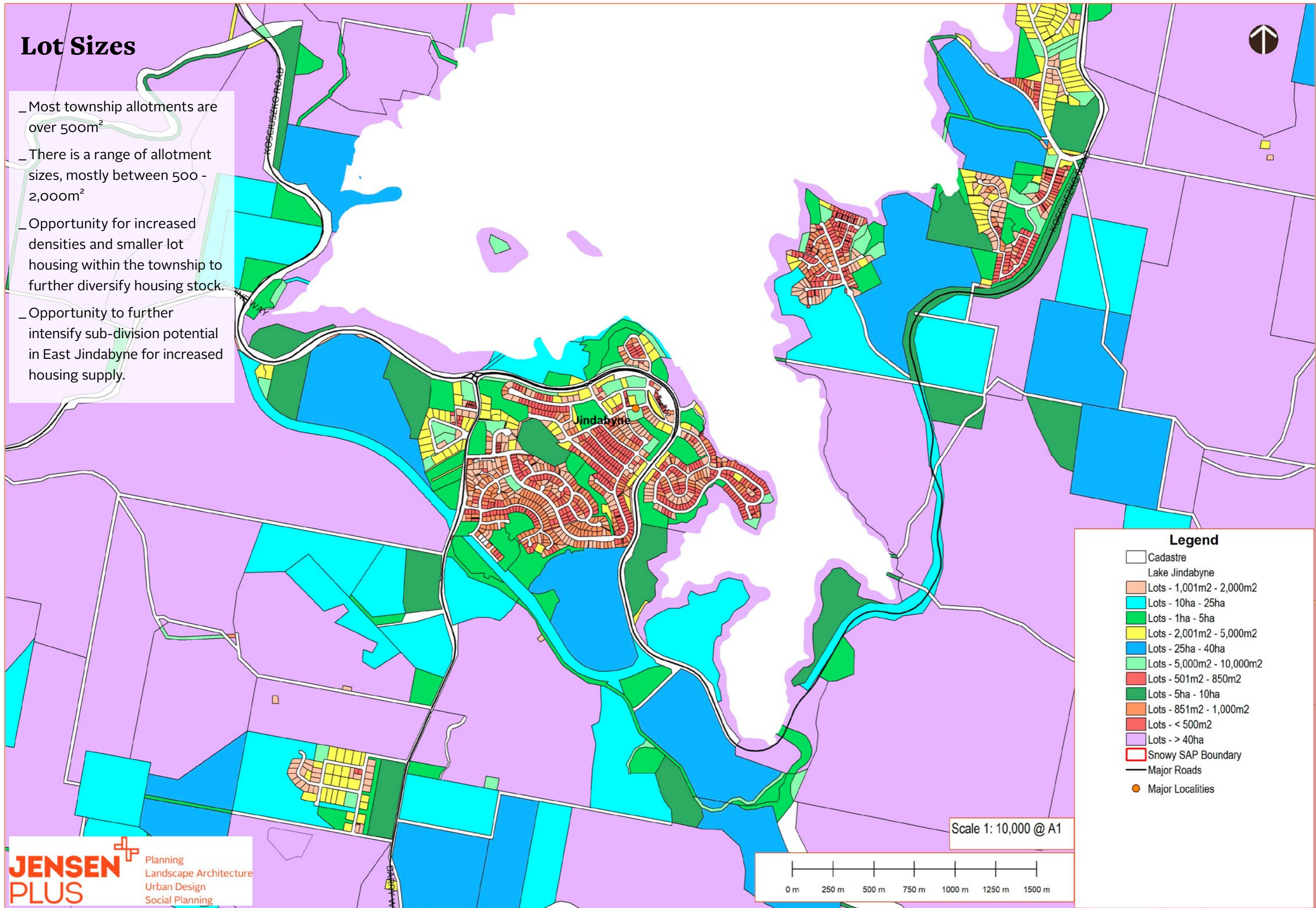
Building Footprints

- _ Building footprints identify vacant land parcels within township, particularly the southern edge.
- _ Some parts of Tyrolean and areas of East Jindabyne have vacant sites.
- _ Limited spare capacity in the Leesville Industrial Estate, implies a need to accommodate potential growth in employment lands.



Lot Sizes

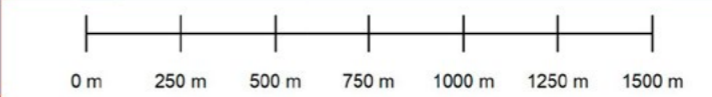
- _ Most township allotments are over 500m²
- _ There is a range of allotment sizes, mostly between 500 - 2,000m²
- _ Opportunity for increased densities and smaller lot housing within the township to further diversify housing stock.
- _ Opportunity to further intensify sub-division potential in East Jindabyne for increased housing supply.



Legend

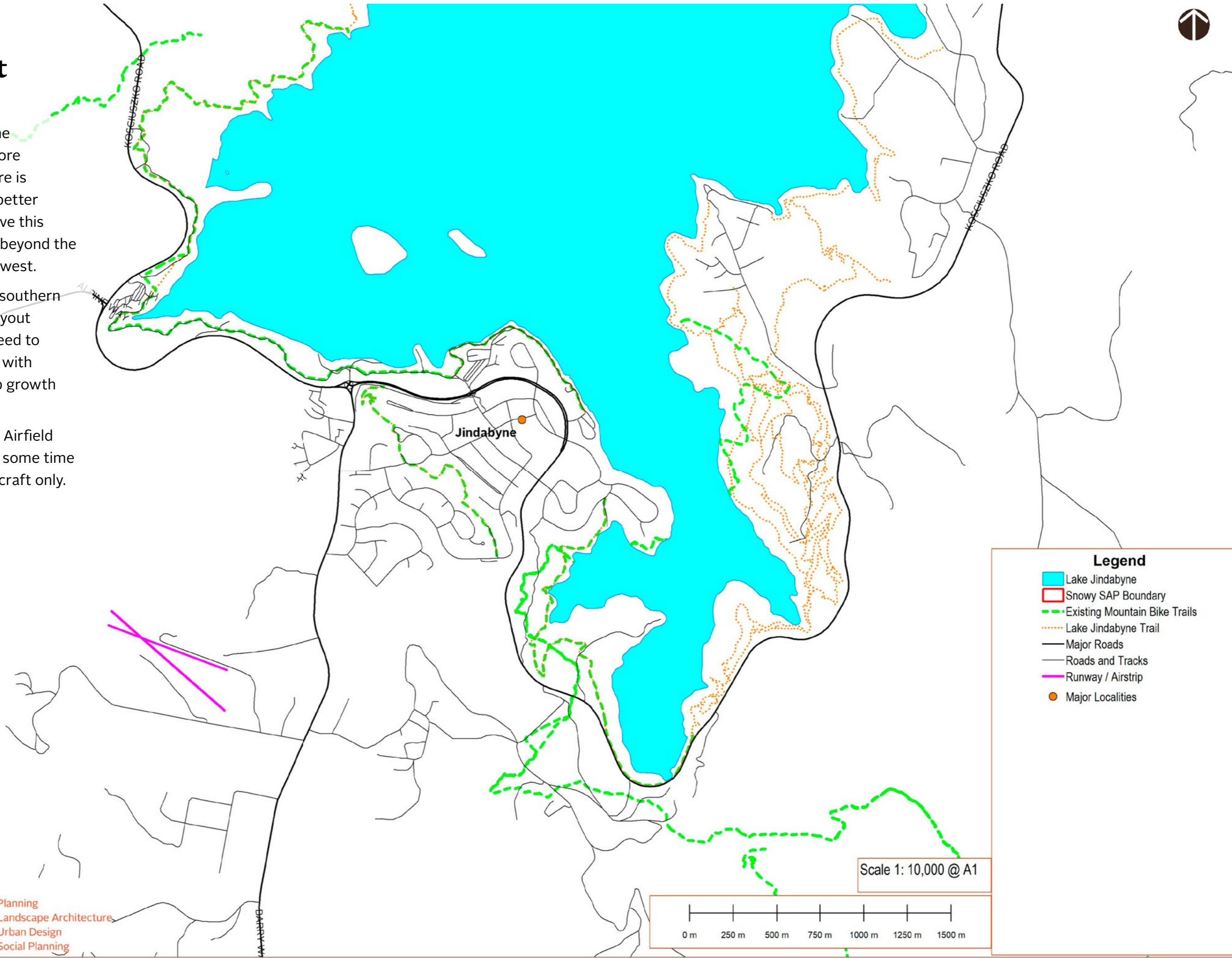
- Cadastre
- Lake Jindabyne
- Lots - 1,001m² - 2,000m²
- Lots - 10ha - 25ha
- Lots - 1ha - 5ha
- Lots - 2,001m² - 5,000m²
- Lots - 25ha - 40ha
- Lots - 5,000m² - 10,000m²
- Lots - 501m² - 850m²
- Lots - 5ha - 10ha
- Lots - 851m² - 1,000m²
- Lots - < 500m²
- Lots - > 40ha
- Snowy SAP Boundary
- Major Roads
- Major Localities

Scale 1: 10,000 @ A1



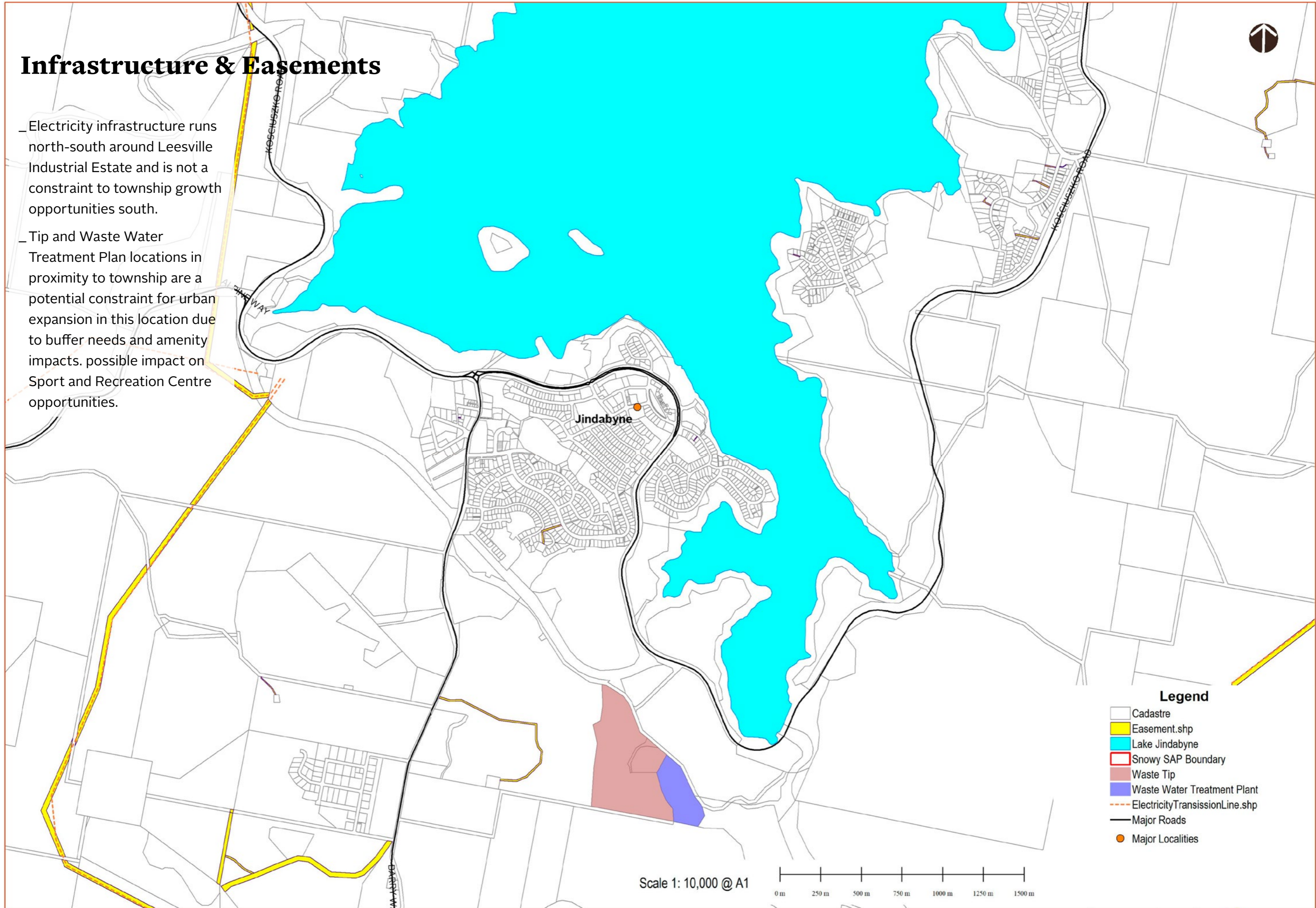
Movement

- _ Trail paths along the Lake Jindabyne shore exist, although there is an opportunity to better connect and improve this route through and beyond the township east and west.
- _ Land set-aside for southern connector road. Layout and connections need to be reviewed in line with identified township growth opportunities.
- _ Existing Jindabyne Airfield likely to remain for some time to service small aircraft only.



Infrastructure & Easements

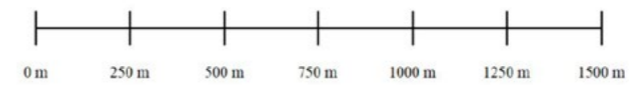
- _ Electricity infrastructure runs north-south around Leesville Industrial Estate and is not a constraint to township growth opportunities south.
- _ Tip and Waste Water Treatment Plan locations in proximity to township are a potential constraint for urban expansion in this location due to buffer needs and amenity impacts. possible impact on Sport and Recreation Centre opportunities.



Legend

- Cadastre
- Easement.shp
- Lake Jindabyne
- Snowy SAP Boundary
- Waste Tip
- Waste Water Treatment Plant
- - - ElectricityTransissionLine.shp
- Major Roads
- Major Localities

Scale 1: 10,000 @ A1



Strategic Land Ownership

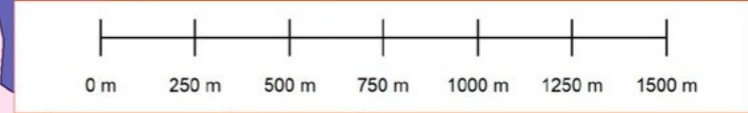


- _ Council ownership of land surrounding Leesville Industrial Estate presents opportunity to support expansion.
- _ Council ownership of land surrounding Tyrolean and East Jindabyne presents opportunities for growth.
- _ Selected State and Crown land parcels also present opportunities, particularly adjacent the Sport and Recreation site.
- _ Significant areas of land along the lake's edge and to the south-west of the township under the ownership of Snowy Hydro and presents an opportunity for development.
- _ Six land major ownerships surrounding the town provide opportunities for coordinating development in support of the SAP's aims.

Legend

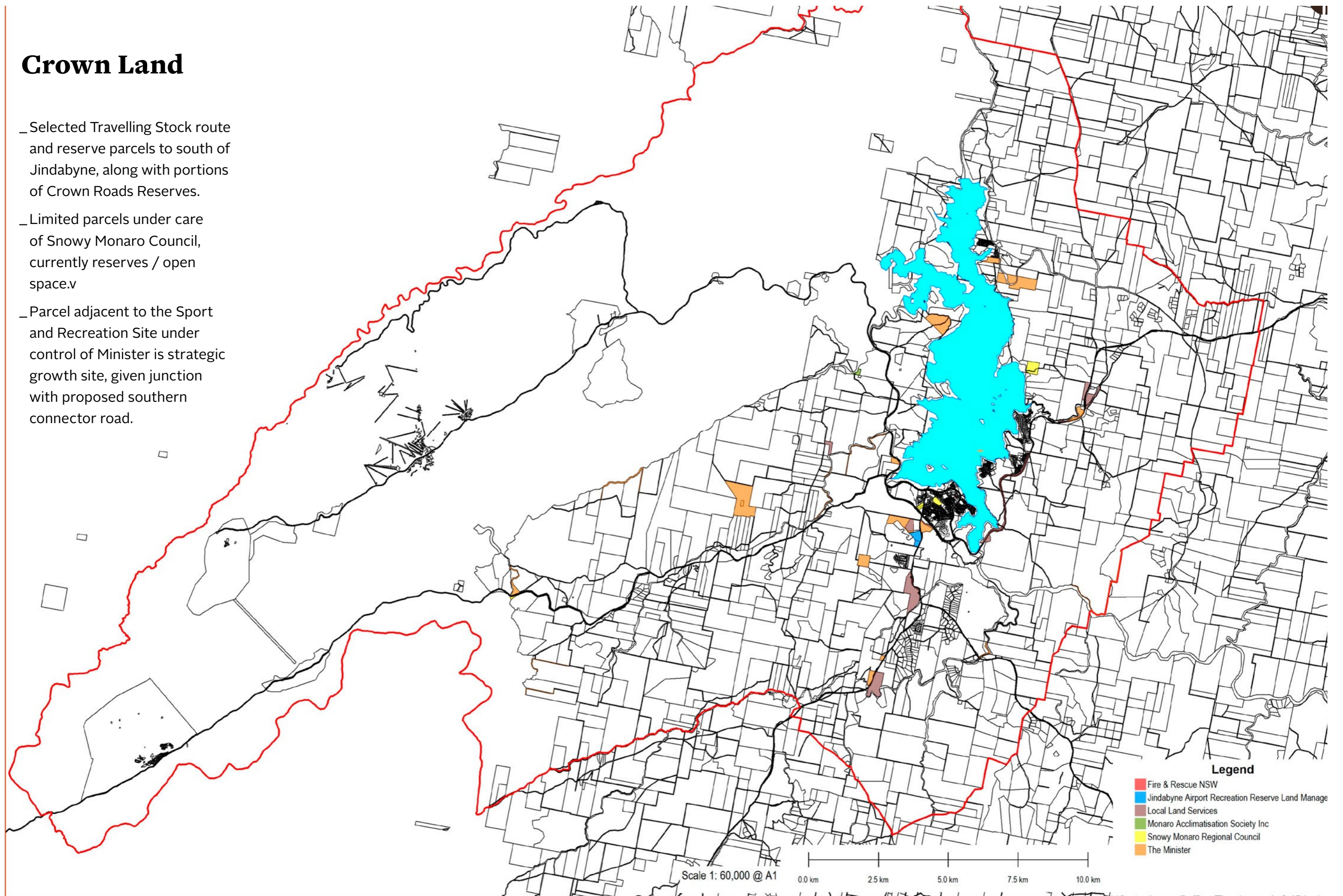
- Cadastre
- Lake Jindabyne
- Owner - National Parks and Wildlife
- Owner - NSW Government
- Owner - Snowy Monaro RC
- Owner _ Golby
- Owner Australian Land Co Pty Ltd
- Owner Body Corp Lakewood Estate
- Owner Craft Earthmoving
- Owner Erina Investments
- Owner Jindabyne Aero Club
- Owner McBurnie
- Owner PWT Investments
- Owner Snowy Hydro
- Owner Sport + Rec site
- Snowy SAP Boundary
- Major Roads

Scale 1: 10,000 @ A1



Crown Land

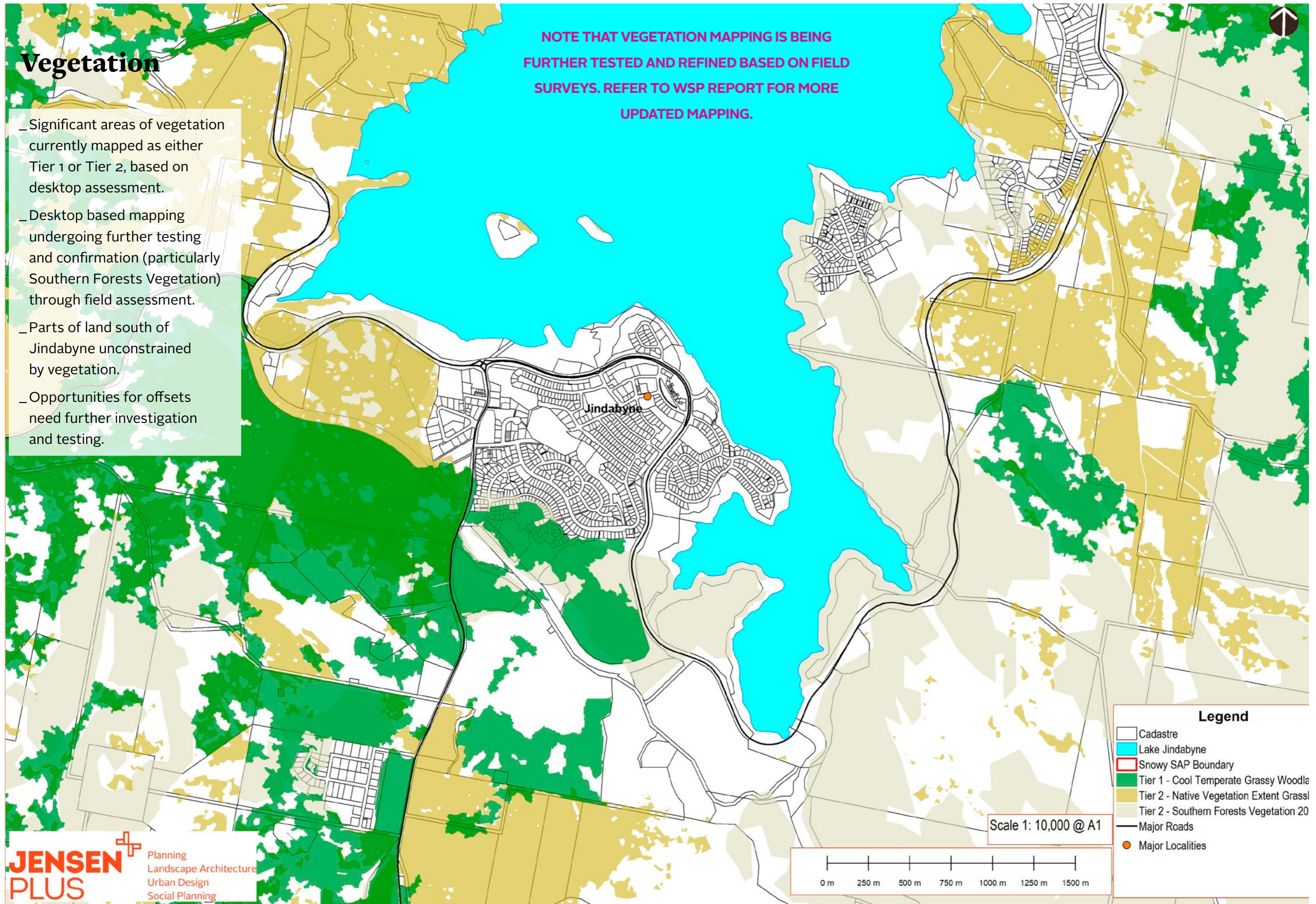
- _ Selected Travelling Stock route and reserve parcels to south of Jindabyne, along with portions of Crown Roads Reserves.
- _ Limited parcels under care of Snowy Monaro Council, currently reserves / open space.v
- _ Parcel adjacent to the Sport and Recreation Site under control of Minister is strategic growth site, given junction with proposed southern connector road.



Vegetation

- _ Significant areas of vegetation currently mapped as either Tier 1 or Tier 2, based on desktop assessment.
- _ Desktop based mapping undergoing further testing and confirmation (particularly Southern Forests Vegetation) through field assessment.
- _ Parts of land south of Jindabyne unconstrained by vegetation.
- _ Opportunities for offsets need further investigation and testing.

NOTE THAT VEGETATION MAPPING IS BEING FURTHER TESTED AND REFINED BASED ON FIELD SURVEYS. REFER TO WSP REPORT FOR MORE UPDATED MAPPING.

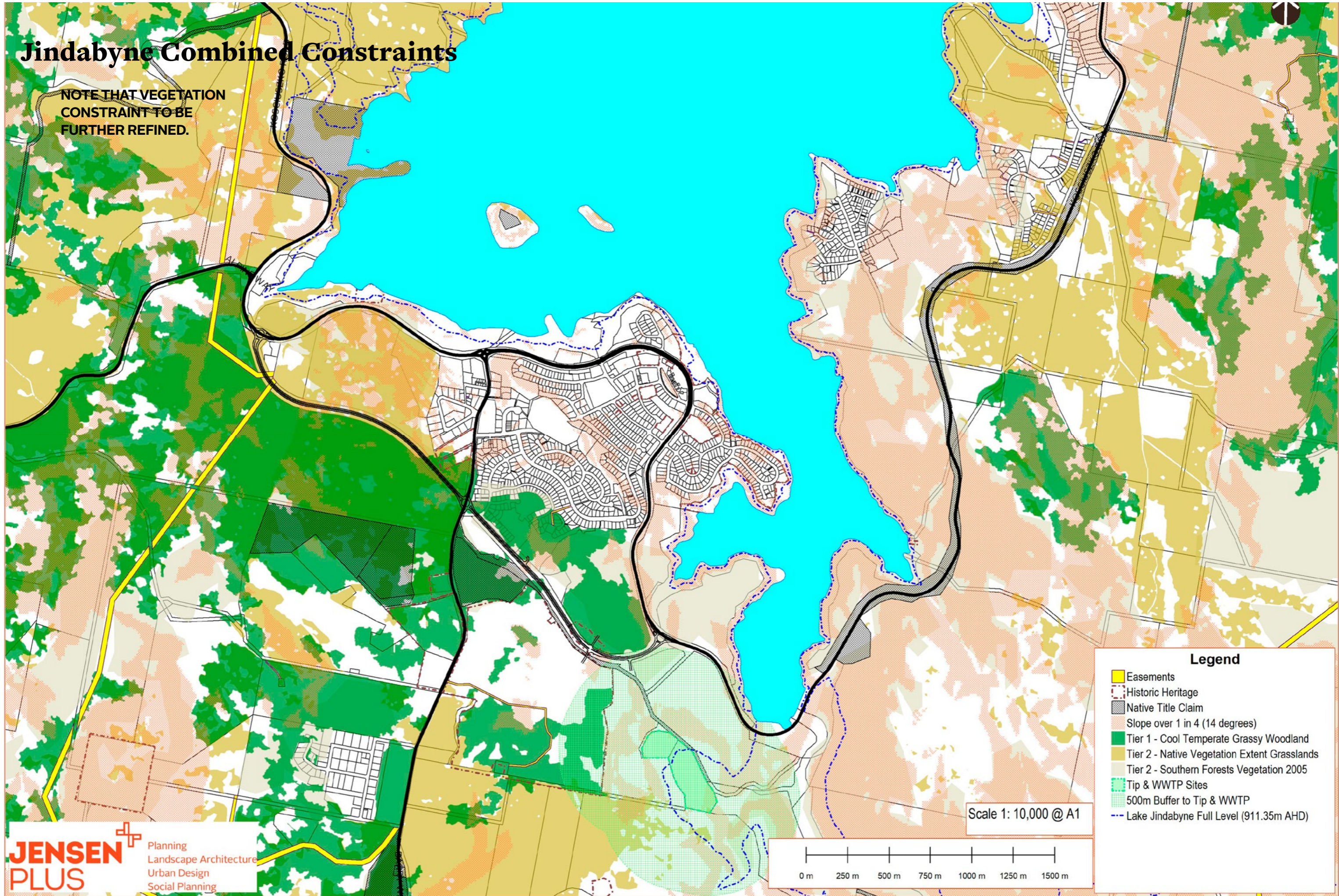


Legend

- Cadastre
- Lake Jindabyne
- ▭ Snowy SAP Boundary
- Tier 1 - Cool Temperate Grassy Woodlands
- Tier 2 - Native Vegetation Extent Grasslands
- Tier 2 - Southern Forests Vegetation 20
- Major Roads
- Major Localities

Jindabyne Combined Constraints

NOTE THAT VEGETATION
CONSTRAINT TO BE
FURTHER REFINED.



Legend

- Easements
- Historic Heritage
- Native Title Claim
- Slope over 1 in 4 (14 degrees)
- Tier 1 - Cool Temperate Grassy Woodland
- Tier 2 - Native Vegetation Extent Grasslands
- Tier 2 - Southern Forests Vegetation 2005
- Tip & WWTP Sites
- 500m Buffer to Tip & WWTP
- Lake Jindabyne Full Level (911.35m AHD)

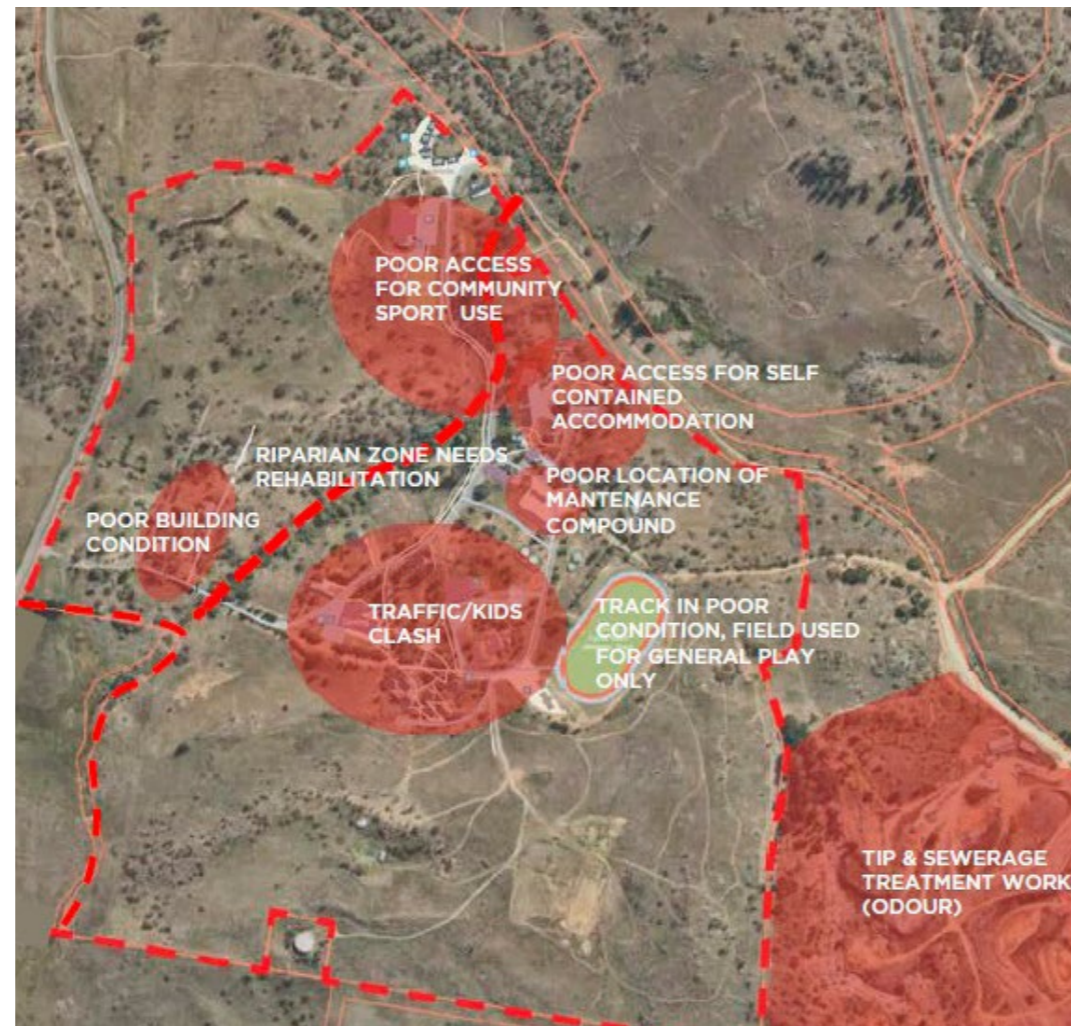
Scale 1: 10,000 @ A1

0 m 250 m 500 m 750 m 1000 m 1250 m 1500 m

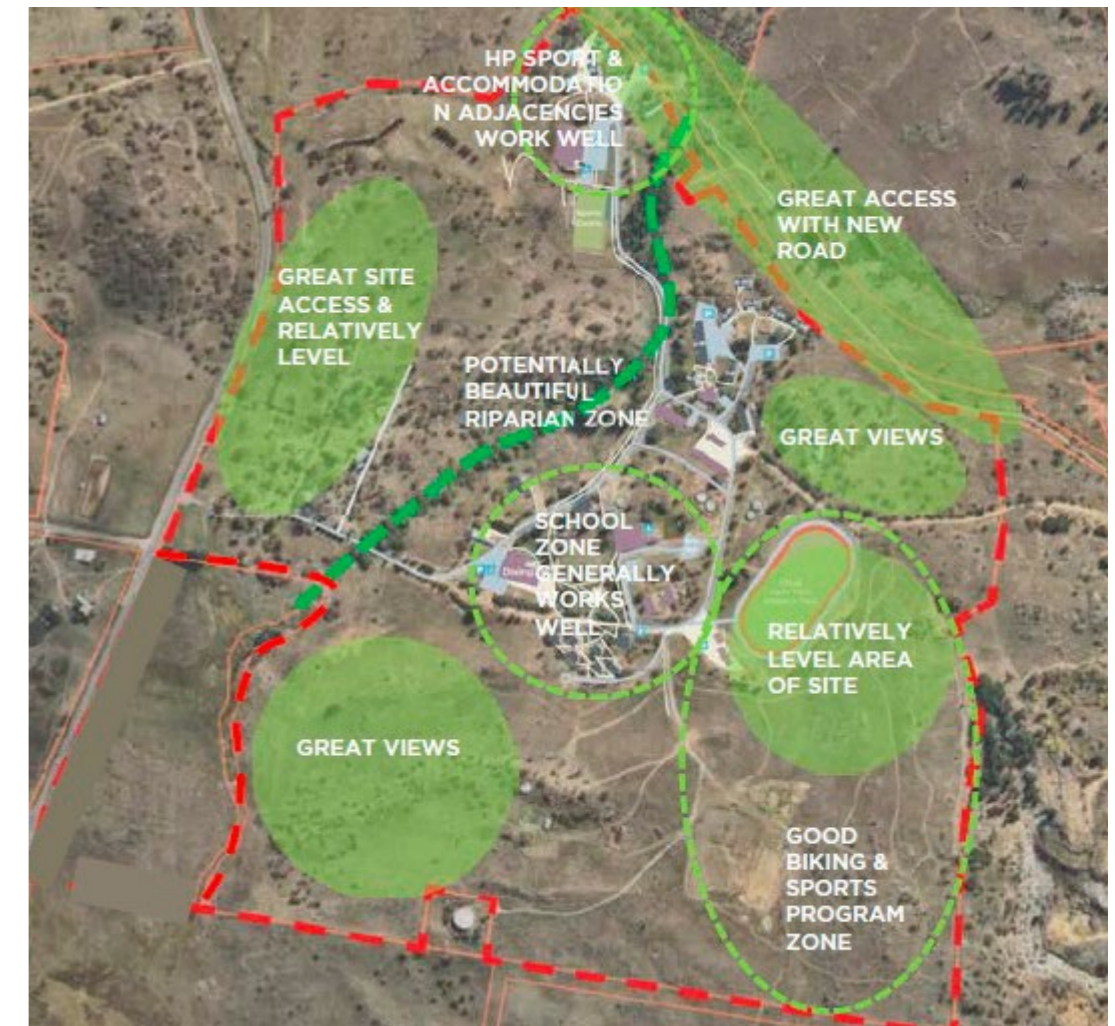
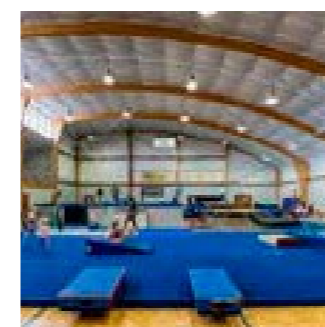


6.3 Sport and education precinct spatial analysis (Populous)

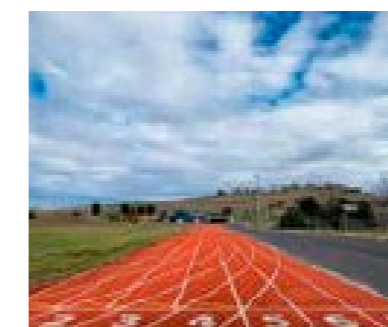
- _ Facilities currently clustered into four zones, being high performance and community sport, student accommodation, self contained accommodation and student sports program.
- _ Some buildings and facilities are in poor condition or are difficult to access for the community.
- _ Site has excellent access to Barry Way and future southern connector road route opening up future improved access.
- _ Level areas adjacent Barry Way are an opportunity for development. Precinct falls into a valley centrally, screening most development. Elevated sections to the south provide excellent views.
- _ Natural watercourse through site creates attractive environment and opportunity for trail / connections.
- _ Site is currently difficult to access for the community with poor connections to the residential areas as a result of topography and future road connection.
- _ Main entrance to site from Barry Way creates clash between traffic and children's camp and activity areas.
- _ Proximity of waste tip and sewerage treatment works creates buffer and odour concerns for future development (particularly accommodation).



Opportunities



Constraints





6.4 Alpine resorts spatial analysis (Deicke Richards)

Overall observations

The landform is a remarkable landscape of high plateaus and valleys with rivers including the Snowy and Thredbo Rivers. The resorts within this landscape are characterised by ridges, creek lines and significant vegetation and fauna. These attributes provide significant opportunities for the design of unique, climatically responsive and distinctive built form, architecture and places.

Development within the area has been able to externalise responses to climate and natural landscape through the use of unsustainable material and energy sources. This has facilitated the use of forms and typologies copied from other parts of the world. The consequence is that the urban and built forms have a more limited connection to the place and limited expression of its uniqueness.

Given the state of the existing built form, removal of buildings from dangerous (and sensitive) areas and relocation of the use and economic asset should be investigated. This will also contribute to regenerative actions.

- _ Buildings typically haphazard in placement, responding to slope and views.
- _ Parking areas dominate layouts and make them unattractive when there is no snow.
- _ Buildings are of varied age, quality and character, but there has been little development since 1980s.
- _ Landscape and built elements largely do not comply with access and/or fire resistance / protection requirements with upgrades difficult and expensive.
- _ Current built form does not exhibit some identifiable design characteristics. Buildings have strong stone bases with large openings. upper levels are often light weight, timber or metal. Colours blend with landscape.
- _ Future character will need to create a place that responds to all seasons and creates a much improved public realm with new buildings positioned and designed to frame external spaces.
- _ Significant opportunity for development of a local identity as expressed in built form and facilitate a unique experience to this location.
- _ There is little acknowledgement of the Indigenous heritage of the region.



Thredbo

- _ Has views up to the range's high plateau.
- _ Styreet network follows contours with staircases providing access.
- _ Buildings located at base of valley near Thredbo River.
- _ Car dominated with little sense of place. Many old buildings needing to be redeveloped to comply with current building regulations.

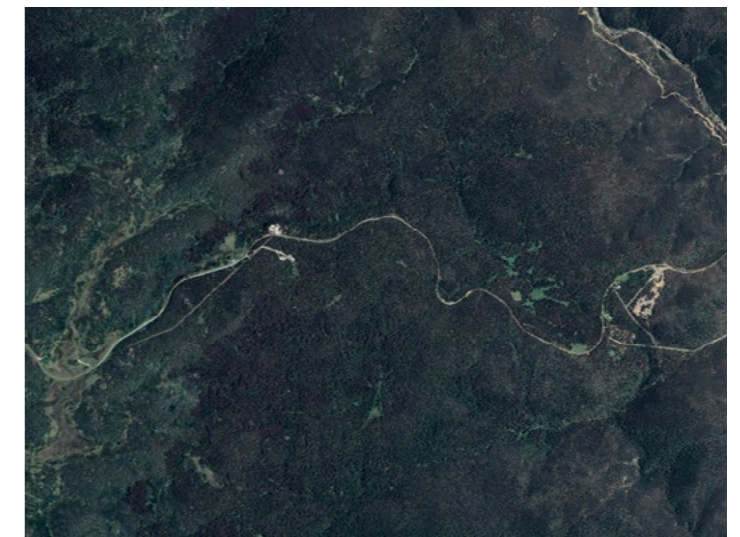


Bullocks Flat

- _ Starting point for the Skitube Railway.
- _ Dominated by car parking for day trippers and overnight stays.
- _ Architecture is indistinguishable.
- _ Opportunity to become a transport hub for Thredbo
- _ Opportunity for medium density village with consolidated parking stations.



Cont.



Perisher Ski Resort

- _ Main ski settlement in Snowy Mountains
- _ Dominated by extensive flat parking areas, offering space for significant development.
- _ Large, medium rise mixed-use resort with buildings framing a grid of pedestrian walkways previously proposed in Master Plan - still remains a viable development option.

Charlotte Pass

- _ Highest and oldest settlement in the Snowy Mountains.
- _ Heritage listed 'Kosciuszko Chalet Hotel.
- _ Remote and is accessed by over snow transport in winter and this remoteness will always have a special character.

Miscellaneous Resorts

- _ A number of isolated developments throughout the Kosciuszko National Park.
- _ Often larger scale developments over multiple levels and getting older and may need renewal in time.
- _ Little opportunity for growth due to constrained lease areas



Click drop down boxes
for more info

6.5 Investigation Area Analysis _ summary of key issues + opportunities





7. Technical Investigations

This section summarises technical reports by other consultants and proposed responses in the Structure Plan.

7.1 Planning Recommendations and Discussion Paper

The proposed planning framework advances selected growth areas of the draft Structure Plan into the Activation and Alpine SEPP, as well as LEP rezoning.

Snowy Mountains Special Activation Precinct – Legislative Framework Options Review, Planning Recommendations Report, Discussion Paper - (Ramboll, 2021)

The Ramboll studies examines what changes to the legislative (especially statutory planning) framework are required in order to streamline planning in the Snowy Mountains SAP, and in particular to apply, or expand, the application of exempt or complying development within the Precinct and what risks might be associated with these changes.

The core principles underpinning the study objectives including to:

- _ streamline approval pathways (cost, time and certainty)
- _ enable innovation, investment and job creation
- _ protection of social/environmental values
- _ enhance liveability, and social and economic prosperity.

The Study reports that two key drivers for the SAP legislative framework are:

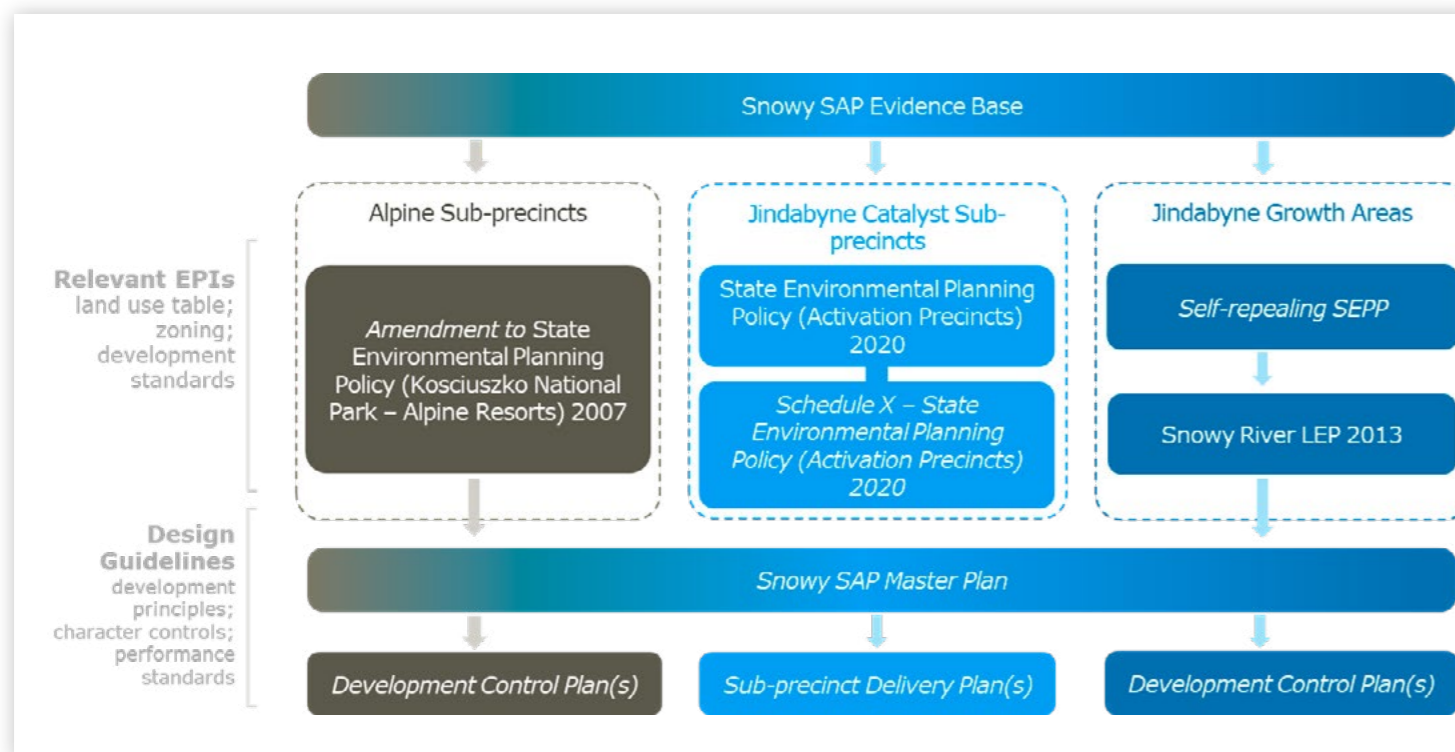
1. Current Activation Precincts SEPP does not consider the diversity of land uses we are encountering as part of the master planning for Snowy Mountains, such as tourism, accommodation.
2. Current Activation Precincts SEPP does not consider the diversity of planning instruments, including those that apply to development in a National Park.

The research recommends key regulatory priority considerations for a new framework to include:

- _ application of Complying/Exempt development to Alpine Resorts
- _ application of AP SEPP (spatial or land use) to Jindabyne Region and identification of Complying/Exempt Development
- _ establish clear governance structure that integrates the roles of NPWS (leasing) and DPIE (consent authority) in the Alpine Resorts, as well as other key stakeholders (Snowy Monaro Regional Council, Regional Growth Development Corporation, Department of Regional NSW, and the like)

The studies also included a series of findings from four recent NSW Government reviews of the NSW planning and development regime. Of particular note were the following key findings:

- _ Exempt development provisions should be expanded to include alpine specific complying development.
- _ Exempt development provisions should be expanded to facilitate infrastructure works such as water, sewer, electricity, gas, telecommunications and road, whether public or private.
- _ The criteria for exempt developments has been based on low environmental impacts and does not necessarily take into account whether or not a particular development creates building regulation concerns such as building safety.



Proposed legislative framework, Snowy Mountains Special Activation Precinct

Proposed statutory planning approach as described in the Discussion Paper

- _ 1. A proposed amendment to the Activation Precincts SEPP with identification of catalyst development sites as sub-precincts, to which the Activation Precincts SEPP will apply.
- _ Expand/clarify Exempt Development provisions to more clearly define the nature of exempt development.
- _ Expand/clarify Complying Development provisions for development in sub-precincts that has sufficiently front-loaded evidence base.
- _ Provide for a streamlined development application process.
- _ 2. A proposed amendment to the Snowy River LEP to rezone proposed development areas not included in the Activation Precinct SEPP. A new Self-repealing State Environmental Planning Policy will amend the Snowy River LEP by rezoning land in key sites of change and introducing provisions to support streamlined approval for development that is consistent with the Snowy Mountains Special Activation Precinct Master Plan.
- _ 3. A proposed amendment to Alpine SEPP. The amendments include:
 - _ Inclusion of additional developed areas as Alpine Sub-precincts.
 - _ An amended land use table and development standards.
 - _ Adopting the Snowy Mountains Special Activation Precinct Master Plan.
 - _ Requirement to prepare a development control plan (the Alpine Development Control Plan) to guide development.
 - _ Expand/clarify exempt development provisions to more clearly define the nature of exempt development in the Alpine Resorts.
 - _ Introduce Complying Development pathway for minor building or maintenance works and basic operational works.
 - _ Provide for a streamlined development application process that utilises front-loaded evidence and design guidance to enable shorter timeframes for assessment and decision making.

Structure Plan Response

- _ Sub precinct (growth area) boundaries, land use tables and concept plans in the draft Structure Plan report have been developed with a view to being developed into the sub precincts now proposed for the Activation Precinct SEPP, Alpine SEPP and LEP rezoning.



7.2 Tourism Development Study

33 Tourism development projects are identified for inclusion in the SAP Structure Plan, to help realise the project vision for the Snowy Mountains of NSW to be Australia's Alpine Capital.

Snowy Mountains SAP Tourism Development Study (Stafford Strategy 2021)

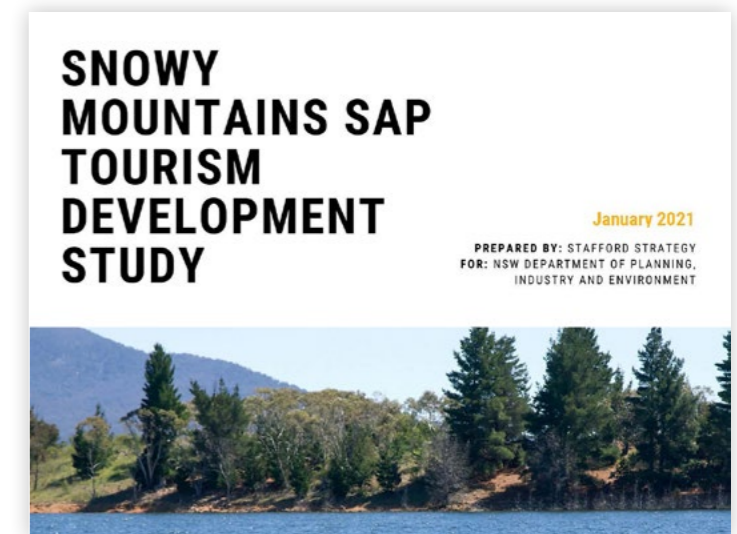
This Study sets out to identify a future tourism vision for the SAP, and outlines critical success factors and recommendations to sustainably grow the visitor economy.

Five Tourism Development Study Objectives were established at the start of the Study.

1. Determine tourism development opportunities for the SAP
2. Assess current tourism product and amenities, along with product gaps
3. Identify future tourism market demand
4. Identify locations for tourism development clusters
5. Integrate with other planning and economic assessments for the SAP area

Tourism Development Study Goals were established to guide the sustainable development of the visitor economy in the Precinct.

- _ These goals link to five destination management components, - placing a priority on social license, sustainability and carbon impacts, the provision of visitor infrastructure, attracting and managing investment into attractions, amenities, access, marketing and pricing.
- _ The Study found by way of a comparative benchmarking analysis process that the Village 'look and feel' was the most important factor in positioning the destination.
- _ The Study notes that While the natural scenery in the SAP is stunning and looks like an alpine environment, the built environment aesthetics do not resemble this. It states that the natural environment is '5-star', but the built environment is generally '3-star at best'.
- _ Barriers to growth as a destination, have been prepared in the Study and have been aligned with the destination management components established at the start of the Study. Product and Experiences was the most heavily affected destination management component.
- _ The Study has identified 33 tourism development recommendations for the SAP which intend to deliver on the Study Goals.





Tourism Development Study

Table 9: Barriers to Growth as a Destination Linked to Destination Management Components

Barrier	PRODUCT & EXPERIENCES	INFRA-STRUCTURE	GOVERNANCE	SUSTAINABILITY	MARKETING & PROMOTION
5-star natural environment, 3-star built environment	●	●	●	●	●
Lack of higher-quality accommodation properties	●	●			
Lack of room capacity in peak visitor periods	●	●			
Aging infrastructure		●			
Climate change	●			●	
Competition from some Victorian ski fields	●				
Constraints on summer-based activity development	●			●	●
Offering lease arrangements	●	●			
Digital literacy of operators					●
Expensive lift tickets & hire	●	●		●	
Extremely high seasonality	●	●			●
Gaining agreement on acceptable levels of visitor economic growth from all stakeholders				●	
Lack of interpretive signage	●				●
Limited all-weather, paid visitor experiences	●			●	●
Limited commissionable tourism experiences	●				●
Limited evening activities to grow overnight visitation	●				●
Limited number of family-friendly visitor experiences	●				●
Limited public transport & connectivity		●			
Limited SP3 tourism zoning to support tourism development	●	●			
Limited tourism investment flows	●	●			
Overtourism concerns from community/stakeholders				●	●
QP accommodation challenges	●			●	
Shortage of affordable worker accommodation		●			
The cost of trail maintenance and a desire for more trails		●			
The need to think larger than the status quo	●	●			

_ The two study goals that had the most alignment with the development elements were Reduce Tourism Seasonality and Grow Visitor Yield.

_ These are interrelated goals and highlight the importance of increasing visitation numbers and accessibility to the Snowy Mountains year-round.

_ Potential exists to grow annual visitation from a wider range of domestic visitor markets especially, but this is highly dependent on introducing new product (accommodation, attractions, experiences, transport services,

retail and food and beverage offerings) and including improved access, so visitors can get to the SAP region faster than the current 5-hour drive ex Sydney.

_ The Study estimated that the potential exists to grow annual visitation to the Snowy region from 740k in 2019 (pre-COVID) to 1.42m pa. post 2040, but if the level of new product development and associated supporting infrastructure doesn't eventuate, visitation may struggle to grow to 1.1m annual visitors as a peak annual figure over a 40- year period.

_ Four tourism catalyst projects have been identified in the Study.

_ These are seen as major drivers of stronger visitation and support the viability of introducing other secondary projects which can leverage off them.

1. Development of the Jindabyne lakefront to include a small-scale boat harbour/ marina, waterfront retail/café/bar facilities, commercial accommodation site, cycleways and with the ability to link easily across to the Jindabyne town centre for safe pedestrian movements,
2. Lakeside eco precinct on the western side of the lake offering a new 4+ star resort, separate serviced apartment

complex, conference and function centre, signature golf course, health and wellness day spa, lake-based recreational activities etc.

3. Activity adventure hub (including a new mountain biking circuit) up behind Jindabyne (Widows Peak) and outside of KNP and most likely offering the proposed local mountain biking hub with multiple trails of different levels of difficulty, a luge experience, multi zipline and or mountain coasters, etc and with associated retail facilities so it offers a composite attraction with multiple experiences for all ages and with the ability to operate throughout the day and into evenings, all year round.

4. Medium to longer-term introduction of improved air access into the SAP and wider region leveraging off existing facilities (Canberra Airport as the international gateway, Cooma Airport as the intra and interstate gateway, and Jindabyne airfield as the aviation recreational hub for scenic flights and other tourism-aviation experiences).

Structure Plan Response

_ The Structure Plan has considered and allocated spaces for the 33 tourism development recommendations; however future iterations of the Plan will need to contemplate them further to fully realise their potential.

_ The Structure Plan is aligned with the key findings of this Study, in particular the look and feel of the Village, and it has articulated opportunities and guidance for improving the built and natural environment across the SAP.

_ The Structure Plan seeks to alleviate some of the barriers to growth concerns listed in the Study, in particular it seeks to enhance the quality of the built and natural environment and advocates for design quality to heighten the visitor experience.

_ This Study was prepared on the assumption of a future airport upgrade, this is a critical factor in enabling growth, movement and connectivity, and realising all 33 tourism development recommendations for the SAP.



7.3 Sport Infrastructure Study

“Assessment of the existing supply of sporting infrastructure in the SAP investigation area, and the assessment of needs of the local community, sports organisations, peak bodies for sport and other interested stakeholders identified a number of themes and infrastructure opportunities that should be considered in the strategic planning and design elements of the wider project.”



Snowy Mountains Special Activation Precinct Final Draft Sport Infrastructure Study (DHW Ludus Infrastructure January 2021)

- _ This Sport Infrastructure Study focuses on the provision of sport and recreation infrastructure in the Snowy Mountains SAP investigation area.
- _ The Snowy Mountains SAP planning project, has two specific sport related objectives:
 1. Provision of infrastructure to accommodate the sport and active recreation needs of the residents within the Snowy Mountains SAP investigation area and in instances, its surrounds.

2. Provision of infrastructure to support pathway and high-performance athletes, including those with alignment to the natural environment offered by the Snowy Mountains SAP investigation area.
- _ The key requirements of the Study were to:
 - _ Analyse supply and demand for sporting community and high-performance infrastructure in the SAP investigation area
 - _ Assess the quality of the sport infrastructure in the SAP investigation area
 - _ Assess the Jindabyne Sport and Recreation Centre’s capacity to deliver community and high performance sporting infrastructure requirements
 - _ Engage with sport and recreation sector stakeholders
 - _ Assess the future demand of sport infrastructure to accommodate population growth
 - _ Assess high performance needs and requirements
 - _ Identify opportunities for future provision of infrastructure to meet population changes and stakeholder needs

- _ Thorough engagement and analysis considered community needs for organised sport (including training and competitions) for the community as well as athletes and teams on the performance pathway through to high performance sport
- _ The Study proposes 21 key themes:
 - _ Theme 1: More Needs to Be Done to Meet the Sporting Objectives
 - _ Theme 2: Existing Sporting Facility Provision is Adequate, However Population Growth Will Create Some Supply Issues
 - _ Theme 3: The Standard and Condition of Sporting Facilities Need to be Addressed
 - _ Theme 4: Adopting Universal Design Principles to Improve Accessibility of Sporting Facilities
 - _ Theme 5: Competing Needs and Space Constraints Limit the Potential of Expanding and / or Developing Sporting Facilities in the Jindabyne Town Centre
 - _ Theme 6: On Mountain High Performance Snow Sport Facilities are Not Best Practice and Provision is Reliant on Resort Management
 - _ Theme 7: The Existing Trail Network Is Critical for a Number of Sporting Pursuits



Sport Infrastructure Study

- _ Theme 8: Creation of a Community Sport Hub at the Jindabyne Sport and Recreation Centre Can Provide the Necessary Sporting Facilities
- _ Theme 9: Improvement and Expansion of the High-Performance Sport Hub at the Jindabyne Sport and Recreation Centre is Necessary
- _ Theme 10: Other Than Winter Sports, Permanent Presence in the SAP Investigation Area is Less of a Focus
- _ Theme 11: Affordability and Access is a Key Consideration for Sport
- _ Theme 12: Access to the Jindabyne Sport and Recreation Centre Needs to Improve
- _ Theme 13: Separating Community and High-Performance Activity
- _ Theme 14: The Continual Evolution and Advancements in High Performance Training Facilities are Shortening their Useful Life
- _ Theme 15: Sporting Organisations Take a Short to Medium Term Horizon for Infrastructure Planning
- _ Theme 16: On Mountain Amenity Can Be Elevated to International Best Practice

- _ Theme 17: The Climate is Already a Consideration of Sports Reliant on Snow
- _ Theme 18: Community Sporting Infrastructure Can Support School Sporting Needs
- _ Theme 19: Tourism Focused Infrastructure Can Support the Needs of Sport and Vice Versa
- _ Theme 20: High Performance Sport Presents Partnership Opportunities with Tertiary Education
- _ Theme 21: An Airport Will Increase the Attractiveness of the Location for Sport Institutions

Specific Infrastructure opportunities and their requirements have been considered in the Study including:

- _ New High Performance Training Centre
- _ Dedicated Athlete and Coaching Accommodation
- _ University Research Centre
- _ Ice Rink
- _ Indoor Courts
- _ Off Mountain Biathlon Course and Laser Range

- _ Sports Fields
- _ Aquatics Facility
- _ Sports Climbing Wall
- _ New Gymnastics Facility
- _ Criterium Course
- _ Dedicated On Mountain Snow Sport Training Facilities
- _ Enhancement and Upgrades Across the Sport Facility Network (various locations)

Structure Plan Response

- _ The Structure Plan incorporates almost all of the proposed sporting infrastructure, for both high-performance and community use.
- _ A particular focus is on the Sport + Education Precinct where most infrastructure is concentrated, including a new community sports park on Barry Way.
- _ On-mountain sports infrastructure planning is not well developed in the draft Structure Plan and this item requires further engagement and master planning to achieve the Precinct objectives fully.

7.4 Jindabyne APZ Requirements (Blackash Fire Consulting / WSP January 2021)

“All new development on bushfire prone land must comply with Planning for Bushfire Protection (PBP) 2019 with the key aim being to provide for the protection of human life and minimise impacts on property from the threat of bushfire, while having due regard to development potential, site characteristics and protection of the environment.”

Snowy Mountains Special Activation Precinct Jindabyne APZ Requirements (Blackash Fire Consulting / WSP January 2021)

- _ This study assesses the ability of proposed sites around the Jindabyne township to respond to bushfire risks, and provides complying asset protection zones.
- _ The Town Centre was not assessed as it is surrounded by existing development and meets the bushfire requirements.
- _ In a bushfire context, strategic land use planning must ensure that future land uses are in appropriate locations to minimise the risk to life and property from bushfire attack.
- _ The broad principles applied to this analysis are:
 - _ ensuring land is suitable for development in the context of bushfire risk and broader environmental impacts;
 - _ ensuring new development on BFPL will comply with the minimum requirements of PBP 2019;
 - _ minimising reliance on performance-based solutions
 - _ providing adequate infrastructure associated with emergency evacuation and

- firefighting operations; and
- _ facilitating appropriate ongoing land management practices
- _ Planning for Bushfire Protection (PBP) 2019 is a performance-based document and the RFS have established and confirmed minimum standards for new development:
 - _ “For new residential development, APZ requirements are based on radiant heat level exposure to buildings not exceeding 29kW/m² (calculated on a flame temperature of 1090 Kelvin).
 - _ For SFPP developments, 10kW/m² (calculated on a flame temperature of 1200 Kelvin) is the maximum exposure at any point of the building wall or façade”
 - _ (PBP 2019 p. 26 and within each performance criteria – p. 43 for residential subdivision and p. 55 for SFPP development).
- _ The PBP 2019 articulates the strategic planning principles that should provide for the exclusion of inappropriate development in bushfire prone areas as follows:
 - _ the development area is exposed to a high bushfire risk and should be avoided;
 - _ the development is likely to be difficult to evacuate during a bushfire due to its siting in

- the landscape, access limitations, fire history and/or size and scale the development will adversely effect other bushfire protection strategies or place existing development at increased risk;
- _ the development is within an area of high bushfire risk where density of existing development may cause evacuation issues for both existing and new occupants; and
- _ the development has environmental constraints to the area which cannot be overcome.
- _ A new requirement of PBP 2019 is that strategic development proposals in bushfire prone areas require the preparation of a Strategic Bushfire Study.
- _ The study areas within the Jindabyne area are identified as being within ‘bushfire prone land’ (BFPL) for purposes of Section 10.3 of the EPA Act. BFPL is land that has been identified by council, which can support a bushfire or is subject to bushfire attack. All development on BFPL must consider and comply with PBP 2019 and the Ministerial Direction for development on BFPL.
- _ Based on the review of high-resolution air photography for the study area and surrounds, the certified Bushfire Prone Map

Table 1 Requirements of a Bushfire Strategic Study (PBP 2019 p. 35)

ISSUE	DETAIL	ASSESSMENT CONSIDERATIONS
Bush fire landscape assessment	A bush fire landscape assessment considers the likelihood of a bush fire, its potential severity and intensity and the potential impact on life and property in the context of the broader surrounding landscape.	<ul style="list-style-type: none"> The bush fire hazard in the surrounding area, including: <ul style="list-style-type: none"> Vegetation Topography Weather The potential fire behaviour that might be generated based on the above; Any history of bush fire in the area; Potential fire runs into the site and the intensity of such fire runs; and The difficulty in accessing and suppressing a fire, the continuity of bush fire hazards or the fragmentation of landscape fuels and the complexity of the associated terrain.
Land use assessment	The land use assessment will identify the most appropriate locations within the masterplan area or site layout for the proposed land uses.	<ul style="list-style-type: none"> The risk profile of different areas of the development layout based on the above landscape study; The proposed land use zones and permitted uses; The most appropriate siting of different land uses based on risk profiles within the site (i.e. not locating development on ridge tops, SFPP development to be located in lower risk areas of the site); and The impact of the siting of these uses on APZ provision.
Access and egress	A study of the existing and proposed road networks both within and external to the masterplan area or site layout.	<ul style="list-style-type: none"> The capacity for the proposed road network to deal with evacuating residents and responding emergency services, based on the existing and proposed community profile; The location of key access routes and direction of travel; and The potential for development to be isolated in the event of a bush fire.
Emergency services	An assessment of the future impact of new development on emergency services.	<ul style="list-style-type: none"> Consideration of the increase in demand for emergency services responding to a bush fire emergency including the need for new stations/brigades; and Impact on the ability of emergency services to carry out fire suppression in a bush fire emergency.
Infrastructure	An assessment of the issues associated with infrastructure and utilities.	<ul style="list-style-type: none"> The ability of the reticulated water system to deal with a major bush fire event in terms of pressures, flows, and spacing of hydrants; and Life safety issues associated with fire and proximity to high voltage power lines, natural gas supply lines etc.
Adjoining land	The impact of new development on adjoining landowners and their ability to undertake bush fire management.	<ul style="list-style-type: none"> Consideration of the implications of a change in land use on adjoining land including increased pressure on BPPs through the implementation of Bush Fire Management Plans.

underrepresents the on-ground bushfire hazard, particularly the grassland/ crop areas.

_ Council produced draft Snowy Monaro Bushfire Prone Land Maps that capture additional bushfire prone areas and more accurately depicts the availability of areas to be subject to bushfire attack. The draft Bushfire Prone Map was sent to RFS 10 October 2019 for review and Certification.

_ It is noted that these new maps increase bushfire prone areas considerably.

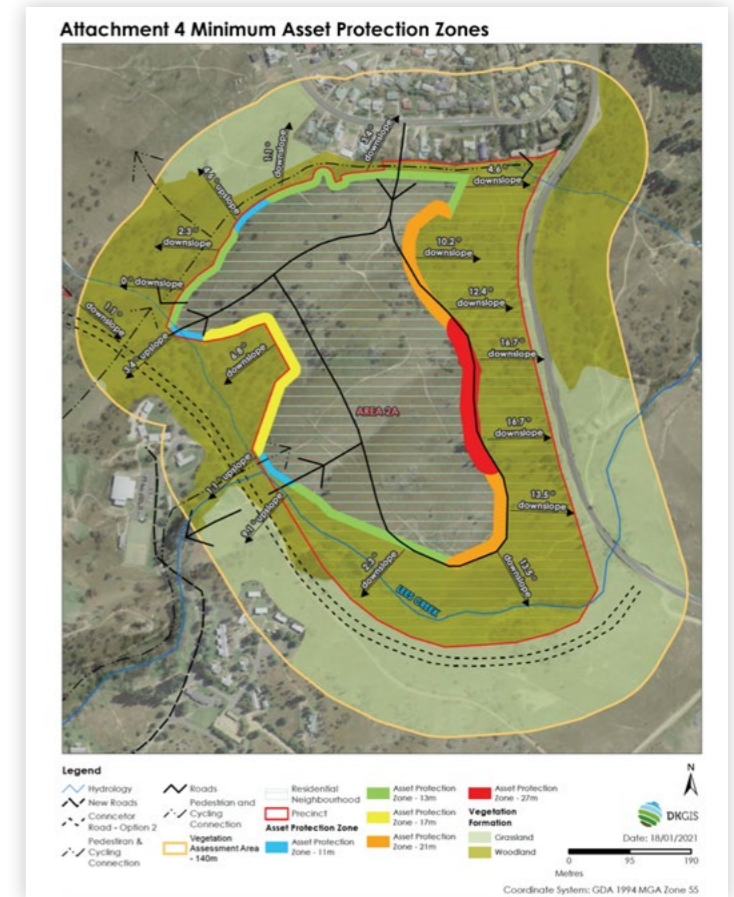
_ Asset protection zones (APZ) are buffer zones between a bushfire hazards and buildings. APZ distances are based on FFDI, vegetation type, slope and the nature of the development. The APZ can include roads or land managed to be consistent with APZ standards set out in RFS document Standards for Asset Protection Zones.

Asset Protection Zones

_ APZs must be maintained for the lifetime of the development, unless modified by a subsequent consent. In order to guarantee that an APZ can be managed in perpetuity, APZs should be contained within the overall development site and not on adjoining lands.

_ APZs for preliminary areas shown in the Structure Plan for the Jindabyne and surrounding growth areas have been drafted. The assessment includes vegetation and slope assessment consistent with the requirements of PBP.


_ Note that no APZs were drafted for growth areas in the National Park.



Structure Plan Response

_ Proposed APZs for land around Jindabyne have been incorporated in the Structure Plan.

_ For other areas, no specific bushfire planning guidance has been shown as this information is still under development.



Snowy Special Activation Precincts
Jindabyne APZ Requirements



7.5 Housing and Accommodation Study

“Housing and accommodation capacity analysis has identified a total need for an additional 3,994 dwellings or accommodation units in 2061, with peak demand occurring in 2041.”

Snowy Mountains Special Activation Precinct Housing and Accommodation Study (Ethos Urban, 2021)

_ This Study forecasts demand and assesses potential supply for new dwellings and accommodation to meet the needs of permanent residents, visitors and seasonal workers in the SAP based on the Structure Plan.

_ Housing and accommodation demand has been derived from a model that determines need based on population, visitor and worker forecasts prepared by the Centre for International Economics.

_ The methodology to identify the need for future visitor accommodation takes the total number of visitor nights in August (August has the highest total number of visitor nights, throughout all forecast years) and divides by 31 days to establish the peak visitor demand on any one day.

_ In 2016 the population of the study area was approximately 5,600 people and there were approximately 4,500 dwellings in the study area with 68.8% (2,984) dwellings privately occupied and the remaining unoccupied.

_ This study listed the following housing and accommodation issues:

_ There is a lack of housing diversity in the SAP with larger dwellings dominating the market.

_ Housing and accommodation for tourists is currently the dominant influence on the local housing market.

_ The quality of short term accommodation in Jindabyne, Crackenback and the alpine markets is variable with notable deterioration.

_ Seasonal worker housing is an issue due to the peak demand (generated for 16 weeks of the year), and overcrowding of accommodation exists, noting that consultation with accommodation providers and local agents suggested a 6,000 seasonal worker population in the area for the winter months.

_ Housing affordability is a significant issue for permanent residents caused by increasing competition from visitors and seasonal workers.

_ Current development activity in the pipeline for large lot subdivisions suggests relatively large lot sizes proposed will not meet projected population demand or contribute to improved affordability for permanent residents or offer diverse household sizes

/ dwelling typologies to meet projected demands.

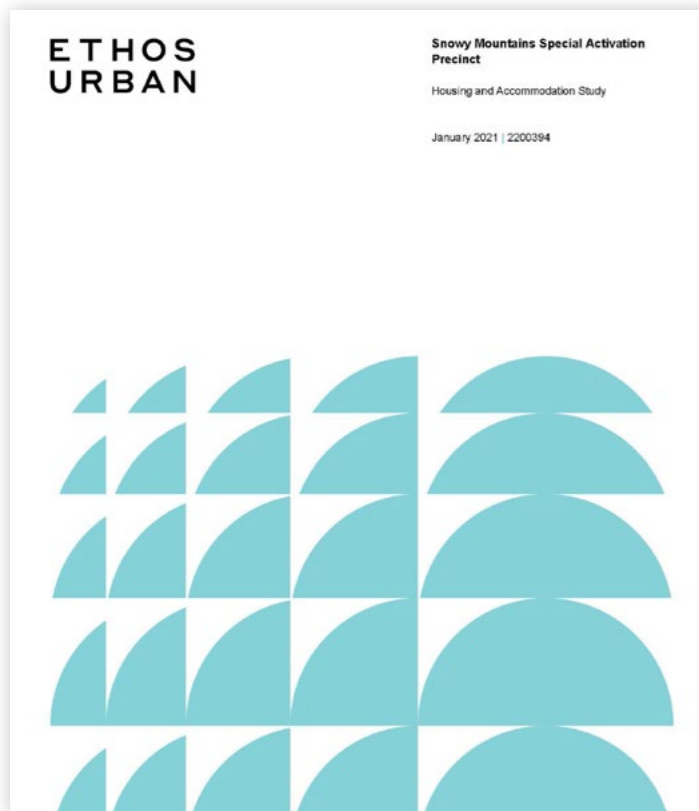
_ The Study lists the following future resident population housing needs:

_ The population is expected to reach 7,688 by 2026 with short (2020-26) and medium (2031-36) periods expected to have the greatest annual average growth compared with longer term growth rates (beyond 2041) where growth rates stabilize.

_ By 2061 the forecasts indicate the population will have increased by 4,110 people from 2020 to 10,668 with an average household size of 2.2 maintained throughout the forecast period.

_ Translating forecast resident population into demand for different housing products found the need for 271 apartments, 271 semi-detached dwellings, and 813 detached dwellings by 2061.

_ The Study notes however that while household size data indicates a mismatch between housing size and the requirements of residents, household preferences are driving demand for larger / detached housing rather than compact, denser multi-dwelling housing typologies such as





apartments.

- _ The suggested distribution of housing to meet the forecast includes, up to 40% infill development, up to 10% rural residential development and at least 50% greenfield development.
- _ Future visitor accommodation requirements for 2061 indicate an additional 5,116 visitors (peak overnight visitors calculated at the month of August) translating to an additional need of 2,238 accommodation units.
- _ The greatest future visitor accommodation need is for new products that provide bedrooms for couples and lone person travellers, in the form of hotel, motel and B&B accommodation.
- _ Future seasonal worker accommodation needs will experience substantial medium term growth peaking at 3,562 workers in 2036, translating to the need for an additional for 451 units.
- _ The Aboriginal Housing Office (AHO) indicated that there are low levels of expressed demand for Aboriginal housing in the Snowy Mountains region.

- _ Demand for housing of older people is forecast to grow as the population grows and ages. There is currently insufficient demand for dedicated housing for older people to make purpose built accommodation feasible.
- _ There is currently no supply of aged-care or seniors living accommodation in the SAP study area. Those who require supported aged care living are forced to relocate out of the SAP study area.
- _ Housing and accommodation capacity analysis has identified a total need for an additional 3,994 dwellings or accommodation units in 2061, with peak demand occurring in 2041.
- _ The yield estimates indicate there is significantly more potential capacity in the Structure Plan to meet projected demand.
- _ Adopting the current occupancy rate (68.8%) and the population forecasts provided by CIE, the Snowy Mountains SAP study area will need an additional 1,868 dwellings to meet demand for permanent residents by 2061
- _ It is noted that due to high level analysis only, the actual capacity of catalyst sites to accommodate growth may change as more detailed planning is undertaken.
- _ Actual delivery of new dwellings and accommodation will also be dependent

- on market conditions and viability, and the willingness of land owners to develop land.
- _ Current housing occupancy rates (2016 Census) shows the highest volume of unoccupied dwellings are in the Jindabyne submarket with an assumption that these dwellings are used for holiday accommodation by the owner, or for short term holiday letting, or both.
- _ There is demand for housing in Kosciusko National Park, however National Parks doesn't allow people to live or reside unless they are employed in the resorts or associated within the businesses. In the circumstance where someone has been able to secure home ownership in the alpine market, the property must be made available for accommodation throughout the year.
- _ Consultation found that low to mid-market accommodation providers struggle to compete with low prices of Airbnb, and an emerging market preference for self-contained accommodation with storage space is driving demand for dwelling/townhouse style accommodation, not more traditional hotel/motel rooms. This has resulted in difficulty and low confidence in suppliers opening new mid-market accommodation in Jindabyne.

- _ Consultation with accommodation providers found that there is difficulty securing loans to further invest in their resorts due to the short leases that National Parks typically offer, this is a barrier to increasing bed numbers for accommodation providers in Threadbo and Perisher.
- _ In the alpine markets, a high proportion of accommodation is owned by ski clubs which are not available to meet high demand for beds during the winter season and go unoccupied.
- _ The Study suggests there are opportunities to incentivise developers to provide affordable products in strategic locations, particularly in Jindabyne town centre, with mechanisms such as height/FSR bonus provisions for sites that achieve amalgamation and a more diverse tenure mix.
- _ The Study further suggests that the recently released Affordable Rental Housing SEPP could be instrumented as a control that overrides other controls.

Structure Plan Response

Predicated long term requirements for residential dwellings, seasonal worker accommodation, and tourist accommodation units, have been provided for in the Structure Plan.



7.6 Aboriginal Cultural Heritage Assessment Report

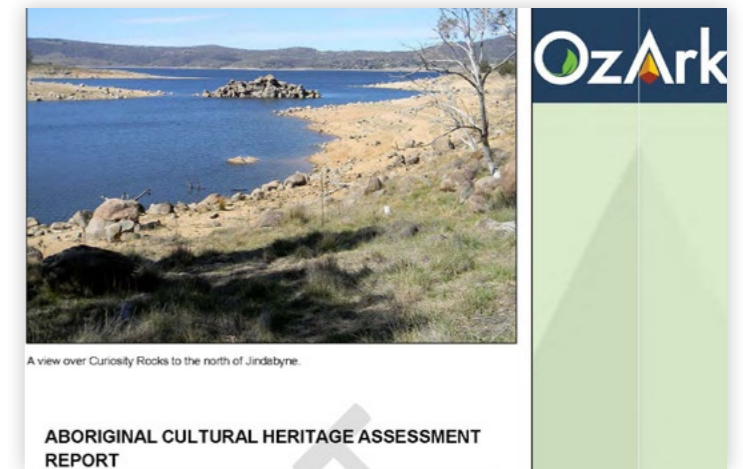
“Aboriginal people hold important cultural associations with key geographical features across the Snowy Mountains SAP and broader landscape. The extent, interconnectivity and cultural significance of the key places identified should be further investigated through a cultural mapping project so that appropriate management tools can be developed where required.”

Aboriginal Cultural Heritage Assessment Report - Snowy Mountains Special Activation Precinct (OZArk, 2021)

- _ The primary aim of the Study is to identify opportunities to conserve significant Aboriginal cultural heritage sites within the development opportunity areas of the SAP and to devise strategic mapping options to assist in future master planning exercises.
- _ Additionally the Study will identify areas that should be reserved for conservation.
- _ The Study reports on two areas, the SAP investigation area (72,211 hectares, and the development opportunity areas (320 hectares) that includes areas near Jindabyne and several locations in the Kosciuszko National Park.
- _ The cultural values assessment undertaken by Susan Donaldson, is based on a small sample set of interviews with Ngarigo men and women, and some in the community have a contemporary connection to the landscapes of the area.
- _ The Study highlights that there are known tangible places connected to ceremonial or historic values present in the SAP

Investigation Area such as Curiosity Rocks near Jindabyne, Kalkite Mountain, Lubra Rocks, and Porcupine Rocks in the KNP, ceremonial grounds at the confluence of Wollondibby Creek and the Snowy River now submerged beneath Lake Jindabyne, archaeological features associated with Bullocks Flat and the Thredbo Valley in the KNP, and historic burials associated the former Cobbin Creek Station to the south of Jindabyne.

- _ The predictive model for Aboriginal site location notes 402 Aboriginal sites that have been previously recorded as a result of archaeological surveys within the SAP Investigation Area.
- _ Most of these sites are artefact sites; although a variety of sites including scarred trees, potential archaeological deposits, stone arrangements and quarries have also been recorded in lesser numbers.
- _ In terms of the development opportunity areas, there is one valid site in the Jindabyne development opportunity areas, and three sites in the KNP development opportunity areas. The Aboriginal Place, Curiosity Rocks, is outside of any development opportunity area.





_ An analysis of the landforms of the development opportunity areas indicates that Aboriginal sites have potential be recorded in all landforms, however, they will be most common on elevated landforms within reasonable proximity to water.

_ The survey recorded four previously unknown sites, one artefact scatter with a moderately dense artefact assemblage, two low-density artefact scatters consisting of two artefacts each, and one isolated find.

_ All recorded artefacts are representative of other sites in the region and no significant features were recorded at any site.

_ The survey was able to test the predictive model and found that the ACH potential was less than was predicted. This is mostly due to the fact that slopes were steeper than envisioned, waterways were not in topographies that afforded convenient camping areas, landforms of low elevation adjacent to waterways were almost non-existent, and soils were thinner and more nutrient poor than was possible to know at a desktop level.

_ Based on the results of the survey overarching recommendations were

advanced that would govern any AHIP/ACHMP as follows:

_ Works within areas defined as 'disturbed land' can proceed without further Aboriginal cultural heritage investigation

_ Works within areas defined as 'low potential' should be assessed at a time when the impacts are known by following the appropriate assessment guidelines.

_ Works within areas defined as 'moderate potential' or 'high potential' should have an impact assessment undertaken. This assessment would include a visual inspection and participation from the Aboriginal community.

_ In terms of overall non archaeological recommendations, the Study suggests the following:

_ Enable Ngarigo people to be part of decision making on matters that relate to the future use of Ngarigo country in an inclusive and transparent manner to ensure ongoing Aboriginal involvement. This may include the formation of a Ngarigo representative group.

_ Seek assistance from NTSCorp, Heritage NSW or another organisation to facilitate the determination of traditional ownership and intertribal disputation [who talks for

country] and to identify those with secondary [neighbouring] interests across the SAP area.

_ It is recommended that an additional and complementary engagement process with the Aboriginal community be undertaken as part of the SAP planning process.

_ In terms of overall non archaeological cultural heritage management, the Study recommends the following:

_ Aboriginal people hold important cultural associations with key geographical features across the Snowy Mountains SAP and broader landscape. The extent, interconnectivity and cultural significance of the following places should be further investigated through a cultural mapping project so that appropriate management tools can be developed where required: Curiosity Rocks, Kalkite Mountain, Gungarlin, Lubra Rocks²⁰, Porcupine Rocks, Snowy Plain, Mount Guthrie, Mount Carruthers, Bullocks Flat, Dicky Cooper Bogong, Perisher Valley, Rams Head Range, Mount Kosciuszko, Jagungal, Bogong Mountains, Snowy River / Lake Jindabyne, Jindabyne, Mount Townsend, Mount Twynam, Thredbo Valley, Cobbin Creek [Station], Wollondibby Creek / Valley and locality, Eucumbene Creek, the base of Mount Crackenback, Waste Point and

Bullocks Flat.

_ A cultural mapping project could also include the collation of existing place based oral histories and ethnographic materials.

_ Reinvigorate discussions about the future of the Kangaroo tooth necklace with Ngarigo people in a very sensitive and empowering manner. Improve the interpretation of the current display about discovery of the Kangaroo tooth necklace in the NPWS Jindabyne Visitors Centre.

_ Review the recommendations from the Kosciuszko National Park Aboriginal Cultural Heritage Study and Kosciuszko National Park Plan of Management to determine which recommendations have been completed and if the outstanding recommendations remain relevant.

_ Respect Aboriginal people's cultural responsibility to care for their own country and transmit cultural knowledge and practises onto future generations by providing employment opportunities across all tenure types. Supporting the development of long term social and economic benefits for Ngarigo people in the Snowy Mountains



Region should involve multi- agency cooperation and targeted outcomes linked to state and commonwealth policies.

- _ Promote and safeguard Aboriginal people's traditional and contemporary use of the natural resources with reference to the 2014 LLS publication Ngarigo Plant Use in the Snowy River Catchment and a further investigation into culturally relevant fauna.
- _ Enable connection to country / return to country for Ngarigo people through the purchase of a Ngarigo base / residence in the Snowy Mountain Region.
- _ Support the formation of Aboriginal operated tourism businesses.
- _ Support the development of a cultural centre / keeping place and training Ngarigo people to manage and share aspects of Ngarigo culture with visitors.
- _ Initiate a regular Snowy Mountains Aboriginal cultural festival to foster a return to country, the maintenance of cultural connections, and a means to promote Ngarigo values to broader society. The festival could celebrate a broad range of Ngarigo cultural values for visitor experience and acknowledge the Snowy Mountains region as a unique cultural landscape.

- _ Develop and install welcome to country signage.
- _ Acknowledge the ancient heritage of Australia's First People.
- _ Promote shared history between Ngarigo and Snowy Mountains non indigenous population.
- _ Acknowledge Aboriginal people's historical association with past eras and events in the region and past Aboriginal use of the landscape for travel..

Structure Plan Response

Places of Cultural Heritage have been identified in the Structure Plan reflecting this Report.

Further cultural mapping exercises can be progressed in future masterplanning for the SAP.



7.7 Airport Planning

NSW Department of Planning,
Industry and Environment
**Snowy Special Activation Precinct
(SAP) - Airport Planning**
Suitability and adaption of Jindabyne
Aerodrome as an aviation node
276436-AVAX-RPT-0003
Rev 1.0 | 10 February 2021

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 276436

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ARUP

“In addition to airport connectivity, an air shuttle service directly to the slopes could be operated from Jindabyne Aerodrome, providing faster access to the resorts. This service will likely influence the parking requirements at both the aerodrome and the mountain resorts.”

Snowy Special Activation Precinct (SAP) - Airport Planning - Suitability and adaption of Jindabyne Aerodrome as an aviation node (ARUP February 2021)

- _ This Report provides an overview of safeguarding considerations for Jindabyne Aerodrome that would provide suitable connectivity as demand increases in the future.
- _ In addition to the existing operations of small, fixed wing aircraft and helicopters, this report considers the safeguarding measures that may be required for Advanced Air Mobility (AAM) operations.
- _ The Report suggests the following key safeguarding considerations for future aviation connectivity at Jindabyne Aerodrome:
 - _ Runway facilities can be extended to 1050m and upgraded within the existing footprint to satisfy Code 2C operations serving mid-range fixed wing commercial aircraft (35-40 seats).
 - _ The existing site provides areas to accommodate moderate growth for parking and storage of all aircraft types.
 - _ Retaining simple and direct road access

between the aerodrome and the village would maximise efficiency of an aviation offering

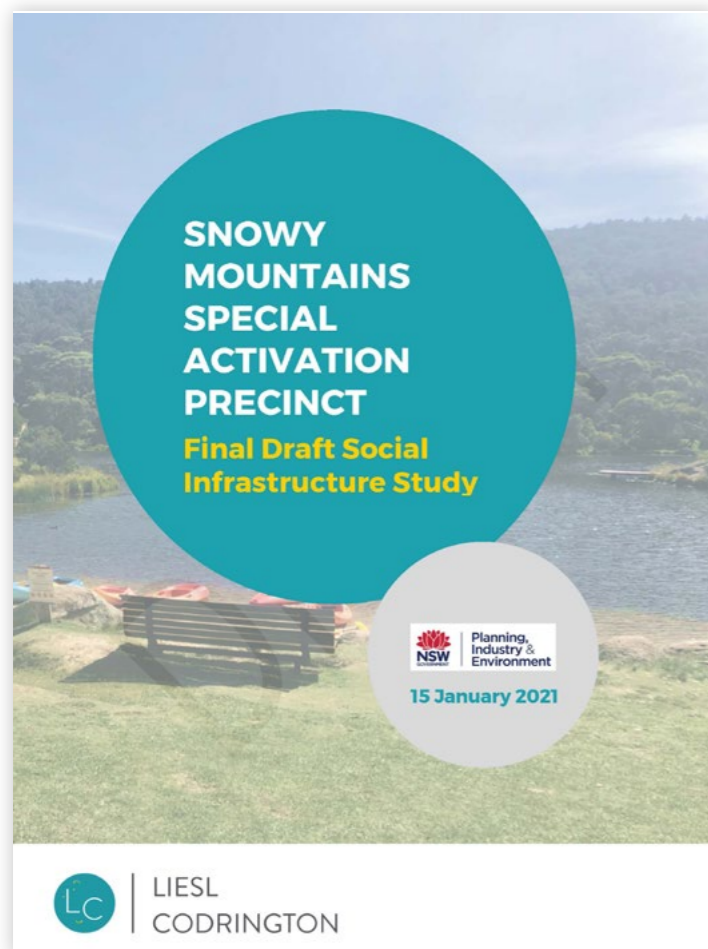
- _ Air corridors between noise sensitive residential / natural areas of the masterplan should be defined to minimise noise pollution exposure of residents.
- _ AAM operations using electric powered Vertical Take-Off and Landing (eVTOL) aircraft are expected to follow similar flight paths as helicopters, with the routes adjusted to minimise local noise exposure.
- _ Significant developments in the certification of new eVTOL aircraft and airspace management systems are expected up to 2030. Beyond 2030, studies suggest that fleets of piloted and autonomous eVTOL aircraft may enter the market, but price is likely to be a barrier to many in the early years but as production and operational costs decrease, the coverage will likely expand to the broader population.

Structure Plan Response

Direction is required from DPIE as to whether Jindabyne Airstrip upgrade is included as a new sub-precinct in the Structure Plan.



7.8 Social Infrastructure Study



“Generally, social infrastructure in the SAP is sufficient for the resident population. However, social infrastructure comes under strain during the peak tourism season (winter months). In many cases, the quality of social infrastructure could be improved to ensure equitable access, and in some cases better functionality, for all sections of the population.”

Snowy Special Activation Precinct Final Draft Social Infrastructure Study (Lisel Codrington, 2021)

- _ The Social Infrastructure Study for the Snowy Mountains SAP aims to provide recommendations to inform planning for the precinct. These will help ensure social infrastructure provides liveability for residents and amenity for visitors, accounting for the variation in population across the year.
- _ Social infrastructure incorporates facilities and services that are used for the physical, social, and cultural wellbeing of the community.
- _ Social infrastructure is the mix of ‘hard’ infrastructure (facilities and open spaces) and ‘soft’ infrastructure (services and programs) that impact on community wellbeing and quality of life.
- _ In 2016, resident population within the study area was 7,077 people. In 2020, it is estimated to be 7,287 people. Estimated total population including seasonal workers and visitors is estimated to be 27,326 people.
- _ Without the SAP, the area would have fewer social infrastructure needs. However, there are some key social infrastructure facilities that need upgrading, regardless of the SAP.

- Examples include Jindabyne Central School, a community library, the Neighbourhood Centre, youth services, aged care, and emergency services station upgrades.
- _ The needs are even greater if the vision of the SAP is to be achieved, as additional resident, seasonal worker and visitor populations will put pressure on some already at-capacity resources. Final population projections will be key in determining social infrastructure needs for the future precinct.
 - _ Enhanced, best practice social infrastructure presents an opportunity for the precinct to cater well to residents, and attract additional tourists and events to the area.
 - _ Recommendations were developed with the purpose of supporting the predicted growth in residents and visitors to the region, ensuring that the precinct is a quality place to live and visit.
 - _ The recommendations for social infrastructure are captured under four themes:
 - _ Theme 1: Develop a best practice, future-focussed sport and education precinct at the Jindabyne Sport and Recreation Centre.
 - _ Create a sport and education hub at the Jindabyne Sport and Recreation Centre that



focusses on elite sport, community sport, university and school education, and outdoor education.

- _ Relocate Jindabyne Central School to a new site at the Jindabyne Sport and Recreation Centre. The future school should be best practice and future-focussed, utilising sustainable design principles.
- _ Improve community sport facilities, including closing the current Jindabyne pool and providing an aquatic centre at the Jindabyne Sport and Recreation Centre.
- _ Improve community access to the Jindabyne Sport and Recreation Centre by creating walkable connections.
- _ Theme 2: Provide services and facilities for all population groups and users.
- _ Ensure inclusivity and access to social infrastructure for a broad range of spaces for all ages and abilities.
- _ Provide a permanent branch library for Jindabyne, connected to a new community centre.
- _ Develop a community centre in Jindabyne to replace and expand the offerings of the

current Neighbourhood Centre, including formalised spaces for community services, meeting spaces, performance space, library and youth hub.

- _ Refurbish and refresh the Jindabyne Memorial Hall so it is more fully utilised and aligns with the visual amenity for the future town centre.
- _ Aged care needs to be provided in a walkable distance from the town centre, with co-located childcare an option to explore.
- _ Consider future health needs in conjunction with final population forecast numbers. Urgent medical care and sports-related injuries need to be considered, given the nature of activities proposed in the SAP.
- _ Emergency facility upgrades are required for Fire and Rescue NSW, NSW Rural Fire Service and NSW Ambulance. These should be located on a main thoroughfare for quick access. NSW Ambulance requires a new site to be acquired, in place of the current land. NSW Police have upgrades in progress that will address their needs. Emergency service access to difficult terrain needs to be considered for response time planning.
- _ Provide a youth hub with support and activities to engage the local youth

population. Activities on the foreshore for youth may include an upgraded skate park, half basketball court and a swimming area at the lake.

- _ Theme 3: Improve the quality and connectedness of open space and recreation.
- _ Improve the quality, function and useability of open space throughout the SAP, with particular focus on activating the foreshore. This includes additional outdoor activities, quality landscaping and design for all age groups, and encouraging events.
- _ Improve the connectedness of open space and public social infrastructure, including linking open space, parks, sports fields, walkable shady streets and social infrastructure for the health and wellbeing of the community.
- _ Upgrade the condition of existing ovals and playgrounds.
- _ Provide opportunities for the local art community to contribute to public art and performance.
- _ Foster development of the trails network in the area for community recreation, walking and mountain biking, and as a tourism opportunity.

- _ Theme 4: Foster social sustainability through community support and building community resilience.
- _ Plan to facilitate community growth through the change process with open and transparent engagement.
- _ Recognise and educate the community about Indigenous culture and heritage through thoughtful design, following engagement with local Indigenous community elders.
- _ Provide affordable housing for service providers and seasonal workers to reduce barriers for skilled workers.
- _ Encourage social responsibility initiatives by future and current resorts in the precinct to improve connection to and involvement with the community.
- _ Establish clear management and governance of new facilities with clear funding arrangements, and explore public-private partnership opportunities.
- _ The Report found through an audit and consultation process that residential aged care is currently not provided in the area, however a separate study from 2018 identified the need for a future facility and recommended land be acquired in the Jindabyne area to develop a community



based facility, and an approximate 40-place service would meet the medium term need.

_ Consultation also identified that Jindabyne is overwhelmed by a lack of services including, the lack of a suitable, dedicated space for community services in Jindabyne means community services are reluctant to come to the area regularly. Cooma is the service centre, and people are expected to travel there for services. However, this often does not happen.

_ Additionally, there is a lack of suitable, safe and affordable spaces available for youth to gather in Jindabyne, outdoor spaces such as a basketball court and upgraded skate park are desired by the community, and Council identified the need for an independent space that youth can use for multiple purposes (recreation, study, entertainment etc).

_ Consultation found that open space in Jindabyne is plentiful, however the quality of the spaces needs to improve. Sites for attention include: the skate park, Jindabyne Foreshore Park, Banjo Paterson Park, and other open spaces are over-utilised and under-maintained.

_ The Report notes the recent release of the NSW Government Architect's Draft Greener Places Design Guide (Draft), and a supporting document Streets as Shared Spaces: Ideas and Opportunities.

_ The standards within the Greener Places Design Guide replace spatial standards or percentage requirements and provides strategies, performance criteria and recommendations to delivery green infrastructure.

_ These documents provide information on how to design, plan and implement public and open space throughout NSW and should be used to guide the development of spaces in the SAP.

Structure Plan Response

The Structure Plan has considered and allocated spaces for social infrastructure improvements, however future iterations of the Plan will need to contemplate them further to fully realise their potential.



7.9 Ecologically Sustainable Development

“A key driver of the SAP is to increase economic growth to the Snowy region through increased visitation, creating ‘Australia’s Alpine Capital’; a destination of choice for sporting and adventure activities, and a year-round destination.”

Snowy Special Activation Precinct Ecologically Sustainable Development (ESD) Context Analysis and Technical Report Final Draft (dsquared, 2021)

_ The purpose of this report is to summarise

the ecologically sustainable development (ESD) opportunities that have been identified for the Snowy Mountains Special Activation Precinct (SAP), so that they can be considered and integrated throughout the planning stages. This includes understanding trends, policy directions and the site-specific context to ensure all opportunities are identified and benefits for the environment, residents, businesses and the broader community are considered.

_ To support creating ‘Australia’s Alpine Capital’: a destination of choice for sporting and adventure activities, and a year-round destination, a number of ESD destination opportunities have been identified for consideration to support growth in ecotourism and therefore visitation to the region.

_ The majority of these ESD destination ideas have been integrated into the Snowy Mountains SAP Structure Plan, which includes:

_ Increased physical connection, open space, views and enhancement of the natural environment in the Jindabyne area. A 20 minute town with walking and cycling infrastructure prioritised.

_ Focus on year round outdoor activities, sports and wellbeing.

_ Tourism opportunities in eco and wellbeing opportunities, including increased camping, multi-day walking routes and mountain biking activities.

_ Transitioning to public transport and zero emissions options over time.

_ The Report has been developed under nine ESD themes, climate resilience, emissions, energy, environment, society, mobility, circular economy, water, and leadership.

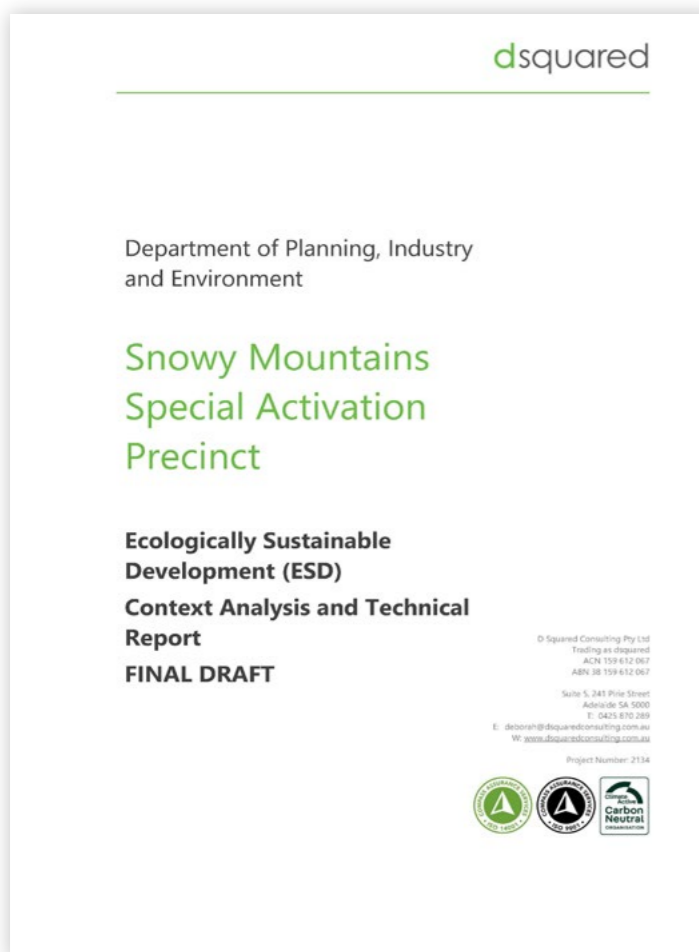
_ The following climate resilience themed recommended provisions are listed in the report:

_ Prioritise developments that focus on alternatives to snowbased tourism.

_ Implement urban design, infrastructure and building design guidelines to increase climate resilience.

_ A Climate Adaptation Plan is developed to identify climate risks and opportunities and provides a transition plan for adapting to a changing climate, guidelines to increase climate resilience.

_ The following emissions themed recommended provisions are listed in the report:





- _ The development is carbon neutral certified in line with the Climate Active Precinct Standard (or equivalent).
- _ GHG emissions data is reported annually.
- _ The following energy themed recommended provisions are listed in the report:
 - _ Develop a renewable Power Purchase Agreement (PPA) with Snowy Hydro to supply 100% renewable energy to the SAP.
 - _ Integrate energy efficiency and productivity into development design guidelines, with both embodied energy and lifecycle emissions considered.
 - _ Energy consumption is reported annually.
 - _ The following environment themed recommended provisions are listed in the report:
 - _ All development is assessed against the Snowy Mountains SAP EMS prior to approval.
 - _ The Snowy Carrying Capacity framework is applied to all development within KNP.
 - _ Implement urban design, infrastructure and building design guidelines to maximise environmental conservation.

- _ Environmental impacts are reported annually.
- _ The following society themed recommended provisions are listed in the report:
 - _ Implement design guidelines for buildings and community spaces that focus on wellbeing.
 - _ Create social infrastructure focussed on equity.
 - _ Recognise and celebrate history and heritage in developments, including the Snowy Discovery Centre.
 - _ Track health and wellbeing outcomes via annual survey and engagement program. Survey to cover a range of health/wellbeing topics.
 - _ The following mobility themed recommended provisions are listed in the report:
 - _ Prioritise walking and cycling infrastructure to create a 20-minute connected Jindabyne town.
 - _ Redesign streetscapes to facilitate walking and riding including reduced speed limits and narrower streets.
 - _ Provide park and ride facilities to travel to and from ski resorts and tourist attractions.
 - _ Create southern connector road to reduce congestion and vehicle numbers in main town

- centre, facilitating a pedestrian and bike friendly environment.
- _ Implement supporting infrastructure for zero emission vehicles (electric vehicle charging) and Mobility as a Service (MaaS) provisions.
- _ Implement new gondola to provide mass transport experience to mountain bike park.
- _ The following circular economy themed recommended provisions are listed in the report:
 - _ The development has identified resource flows, both within and outside the precinct, that will contribute to reducing waste to landfill and increase resource productivity.
 - _ Waste management is effectively managed throughout the precinct in accordance with the SMRC Waste Management Strategy.
 - _ Council to report total landfill waste and diversion rates for waste generated in the SAP.
 - _ The following water economy themed recommended provisions are listed in the report:
 - _ New water infrastructure and urban planning to incorporate water sensitive urban design.
 - _ Wastewater treatment systems in the alpine areas to be upgraded to closed loop systems

- with no pollution to alpine streams.
- _ Build water capture and reuse infrastructure for all new developments.
- _ The following leadership themed recommended provisions are listed in the report:
 - _ All development is monitored against its ability to contribute to the Green Star rating and EMS outcomes.
 - _ Reporting and implementation of these frameworks is applied at mandatory, voluntary and opt-in scales depending on scale of development and impact.
 - _ EMS controls are reported annually and report is made available to the public.

Structure Plan Response

The Structure Plan is aligned with the intent of this Study, however future iterations of the Plan will need to contemplate key recommendations further to fully realise their potential.

7.10 Economic Development

CIE's economic study predicts very high growth in tourist visitation and population to 2040, with greatest increases in winter tourism. This is the despite the region's high seasonality creating several socio-economic problems of concern.

Economic Development in the Snowy Mountains SAP Draft Final Report (The Centre for International Economics, 2021)

This report sets out: the socio-economic context of the region, the tourism context, perceived economic problems and opportunities visitor economy opportunities and threats, projections of future tourist visitation, population and employment projections, and market development growth in support of the projections for the SAP.

- _ The key socio-economic factor noted in the Report is the large seasonal employment, which is estimated to be about the same as permanent employment, and the importance of tourism activity as a driver for the regional economy.
- _ The key tourism factor noted in the Report is that after 10 years of decline in the 2000s, the 2010s have seen strong growth in tourism in winter and summer, with non-winter growth particularly related to Thredbo. This is likely to continue with a suite of attractions such as the Snowies Iconic Walk, Thredbo

Valley Trail extension and Lake Jindabyne trail all occurring or likely to occur.

- _ The current market remains predominantly winter-based, where many businesses make their money.
- _ **The Snowy Mountains SAP area is the most seasonal tourism location in Australia. It also has a substantially more seasonal pattern than other alpine destinations internationally.**

_ The main markets currently are domestic overnight visitors from NSW and domestic overnight and day visitors from the ACT.

The key perceived economic problems and opportunities noted in the Report, rests on three propositions:

- _ Firstly, main tourism and infrastructure assets are publicly controlled (e.g. Kosciusko National Park and Lake Jindabyne, transport system) and there is an opportunity to make better use of these assets from a visitation perspective.
- _ Secondly, climate change will significantly impact on winter tourism. Expectation is that effects will be able to be mitigated until 2040, but will then accelerate. There is substantial uncertainty about these impacts and the extent to which resorts can adapt.

_ Thirdly, coordination and branding could better manage the tourism spillovers that exist between businesses, and between KNP and the remainder of the SAP.

The Report seeks to track drivers of tourism uplift using a visitation model which was developed, with the key findings listed being:

- _ In 2040, under the base case we expect 892 000 visits per year, with 459 000 in winter and 433 000 in non-winter
- _ Improved air connectivity through more flights from Sydney, Brisbane and Melbourne, lower fares and improved connections between airports to Jindabyne and the resorts. This would increase trips by ~90 000 in 2040.
- _ Removing bed limits and any other capacity constraints would increase trips by 16 000 in 2040.
- _ Reducing the cost of new developments within the KNP (by around 3.8 per cent in winter and 1.3 per cent in non-winter) would lead to 7 500 new trips in 2040.
- _ Providing a 'transport solution' to overcome car parking and access constraints would boost visitation by around 37 000 by 2040 during winter months.





_ New investment in marketing and tourist attractions would lead to over 283 000 extra visitors by 2040, most occurring during non-winter months.

_ **Doing all of the above leads to an additional 433 000 extra visitors by 2040.** This is greater than the sum of the standalone impacts of each activities, due to the unique interaction between multiple initiatives within the SAP.

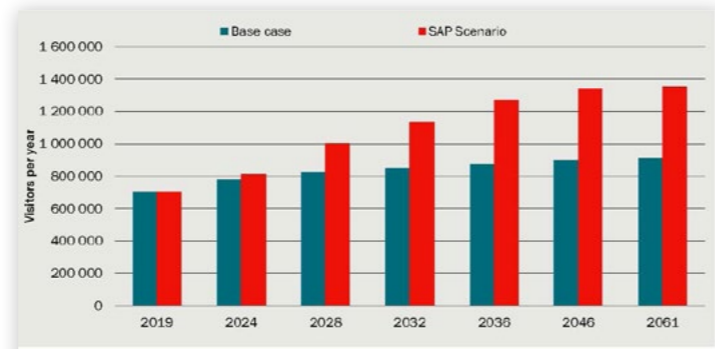
_ The Report modelled expected visitors for the SAP scenario versus the base case. The base case is driven by population and income growth, including covid-19 impacts, existing projects under development and climate change.

_ The overall SAP scenario versus the base case in terms of year-round visitor numbers is shown in the top chart.

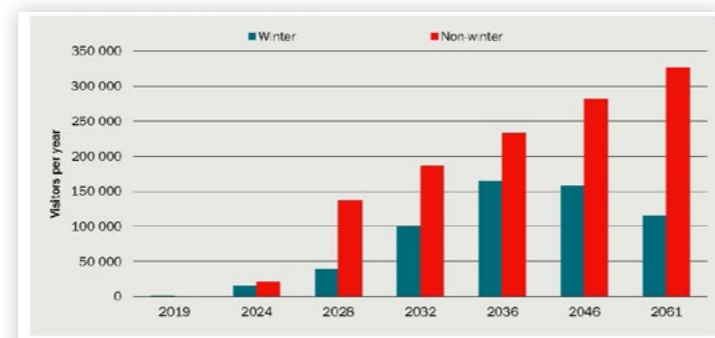
_ The uplift in winter and non-winter is shown in middle chart.

_ Expenditure is shown in bottom chart.

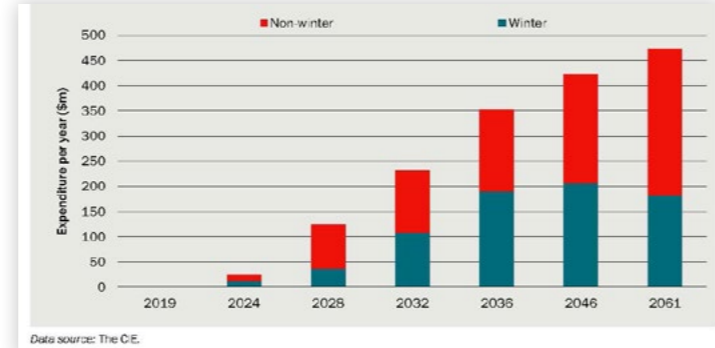
_ The SAP activities allowed for would drive around 440 000 more visitors at peak and around \$470 million more expenditure per year. Note that the winter uplift is driven



Year Round Visitor numbers SAP scenario versus the base case



Uplift in winter and non winter SAP scenario versus the base case



Expenditure SAP scenario versus the base case

mostly by the airport, bed limit changes, provision of a transport solution and planning cost changes, while the summer uplift is driven by new attraction activities.

_ The Report notes higher visitation and visitor expenditure would translate into higher levels of population and growth in the region, in **the SAP scenario population would increase to about 11 800 people in the Jindabyne-Berridale region.**

_ The Report notes that Jindabyne-Berridale SA2 is characterised by very low levels of unemployment, at 1.8 per cent (2016 Census), or 1.9 per cent over the past 10 years which is low compared to 5.2 per cent for NSW as a whole. It notes however, it is likely that there is underemployment outside of the snow season due to overall reduced economic activity.

_ Over the 5 years prior to financial year 2017-18, there have been 403 approved development applications (DAs) for residential development and an additional 408 for non-residential development (including industrial, tourist, infrastructure and subdivision). The value of DAs over this period is \$90.16 million and \$36.3 million respectively.

_ The Report notes of most importance for the

SAP is the large role played by tourism in the regional economy.

_ Tourism consumption in the Snowy Mountains Tourism Region is estimated to be \$981.3 million (2017-18), with the greatest contribution being from long distance passenger transportation, food, accommodation and fuel.

The Report noted key findings in terms of seasonality were that:

_ Most businesses surveyed operated all year round (about 70 per cent)

_ However, employment was markedly lower outside winter for these businesses, with more than one third of these businesses employing less than one quarter of the people outside winter that they do in winter

_ Demand was also markedly lower outside of winter, with almost half of businesses indicating non-winter demand was less than one quarter of winter demand.

_ The Report notes that visitation to the SAP is growing as a tourism destination, with strong growth over the last 10 years.

_ The Report notes the view that this pattern is influenced by exchange rate movements. An appreciating Australian dollar from 1999



to 2014 led to domestic tourists increasingly looking overseas, which has since reversed.

_ Other more specific indicators suggesting robust growth include lift data from Thredbo indicating growth of 3 per cent in winter for skiing passes from 2015 to 2019, similar growth in tourist rides and almost 20 per cent annual growth in mountain biking lifts at ~25000 mountain biking days in 2019.

_ The Report notes that nearly all access to the region for tourism is currently by private car.

_ **It is noted that despite strong tourism outcomes over the past decade the region's tourism activity and revenue is heavily dominated by the snow season.** It is fairly unique in its level of seasonality:

_ **The Snowy Mountains has the lowest average occupancy rate of any tourism region in Australia at less than 30 per cent across the year.**

_ Comparing the Snowy Mountains to international alpine destinations, the Snowy Mountains is also noticeably more seasonal than any other location examined. The alpine accommodation in the US, Canada and Switzerland serves dual peak seasons all year round, their first high season starts

at December and ends in April each year, spanning the ski season.

_ The second busy season commences from May to October, which is attributable to summer outdoor complements and other cultural events.

_ In addition to the natural beauty, there are a diverse range of summertime recreation facilities, including but not limited to hiking, rafting, skydiving and paragliding.

_ The Report states that by contrast Queenstown in NZ is almost a year round busy destination and has its highest room rates in Summer.

_ The implications of having a very short period of demand is that, for tourism operators to be commercially viable, prices have to be very high during snow season. The social implications are that there is a large influx of people into the region for a short period of time — both visitors and seasonal workers.

_ During winter the Report estimates that the population residing in the area increases by more than 50 per cent due to seasonal workers and employment more than doubles. Visitors make more than an additional 200 per cent of the usual resident population.

_ The Report lists the main macroeconomic drivers of change for visitation to the region

as being; population growth, income growth in origin markets, and the strength of the Australian dollar.

_ The Report compares the Snowy Mountains to other alpine destinations and found that other overseas alpine destinations tend to have much more striking natural features than the Snowy Mountains, and that in Victoria's case The Victorian High Country has had a markedly better visitation growth and spreading across the year.

_ The Report provides data on the types of activities people are doing in the Snowy Mountains versus the Victorian High Country, revealing what could drive additional tourism in the Snowy Mountains. The category where the Snowy Mountains outperforms the Victorian High Country is snowsports, however in every other activity category the Victorian High Country outperforms the Snowy Mountains.

_ Compared with the Snowy Mountains Queenstown attracts a large number of Australian tourists in summer and in winter.

_ They are motivated to visit in summer for exploring and discovering uniquely different experiences and experiencing places, experiencing adventure and excitement, visiting a must-see destination and relaxing and recharging.

Structure Plan Response

CIE's economic study and growth projection model is informed by five assumptions which have been described in combination as an 'unconstrained' growth scenario, namely:

1. improved air connectivity (once assumed to be via a new airport at Jindabyne, and latterly through market-led route investments to existing airports, but without government support)
2. removing regulations on maximum bed numbers in Kosciuszko National Park tourist accommodations
3. reducing the cost of new development by streamlining planning processes (e.g. time and information requirements)
4. proving a 'transport solution' to address car parking capacity at ski resorts
5. new investment in marketing and tourist attractions.



Constraints identified

However the SAP master plan investigations undertaken suggest that:

- _ the overwhelming majority of visitors arrive by car and not by air
- _ bed number restrictions are unreliable and often exceeded (evidenced through examining online accommodation advertisements, and through infrastructure demands at peak times in ski resorts). Bed restrictions in any case do little to manage day visitor demands such as road and parking capacity
- _ methods for streamlining planning (e.g. complying development pathways for tourism developments) especially in Kosciuszko National Park have not been successfully developed
- _ potential transport solutions and tourist attractions have been identified (but their policy and investment status is not final).

In reality the study area's growth and development is not unconstrained. Key constraints and/or uncertainties include:

- _ Access constraints to the region and within the region (including by car or air), relate to network capacity and safety constraints to transport and future transport networks. The commitment to new transport solutions such as shuttle buses and car parking has not been finalised.
- _ Land availability for new development within Kosciuszko National Park and resorts has been found to be highly constrained by biodiversity values, slope, bushfire hazard and other issues. Development may have to focus on a small number of previously undeveloped sites (or none at all), plus the redevelopment of existing properties over time.
- _ Many challenges exist with the redevelopment of tourist accommodation sites in KNP including construction costs and seasonal access, compliance with safety standards, lease and tenure arrangements, bushfire planning regulations, plethora of owners including non-commercial ownerships.
- _ Carrying capacity of ski resorts including

lift/slope capacities, infrastructure capacities, transport capacities is still in testing.

Inconsistencies with SAP strategy?

- _ Of particular note is the model's conclusion of a major increase in winter visitation by the 2040s, from ~18,000 peak overnight visitors to ~30,000 peak overnight visitors.
- _ **This would appear to be an inconsistent result with the strategic aim of developing a year-round tourist economy and further emphasise the seasonality of the region.** Little testing is available as to how this additional winter visitation would be accommodated in additional ski lift capacity or ski terrain, as this was not included in the master plan studies (given the broader objective has been for year-round development not winter growth).
- _ **Large and rapid winter growth is also questioned in the context of increasing pressure from climate change impacts.** What land, water, energy and cost

implications would result from this winter growth and its 'mitigation'? And what would become of these investments after 2040 when climate change impacts are reported to accelerate?

Winter visitation predictions drive tourist accommodation requirements

Overall it is not considered that the 'unconstrained' economic growth model provides a robust platform for strategic planning, land use planning and infrastructure planning.

- _ As tourist accommodation requirements, and future population and housing growth projections, are directly linked to visitor numbers including peak winter visitation, it is possible that the "unconstrained" growth model exaggerates land and accommodation requirements (even if a 'high growth' scenario is desirable).
- _ The model also predicts most growth to take place over 20 years, which is at odds with the objective of developing a 40-year plan.
- _ Finally, insufficient attention may have been paid to visitor yield compared to visitor numbers. Could economic development be better stimulated by quality and value rather than solely tourist numbers?



7.11 Geotech, Hydrogeology, Renewable Energy



Technical Study Report - Engineering - Geotechnical (WSP, January 2021)

- _ This study has been carried out to determine the possible geotechnical risks that may require mitigation strategies for future development.
- _ The Snowy Mountains SAP study area is in highly variable terrain which includes high relief areas, rivers, creeks, fault lines and is mainly underlain by intrusive rock.
- _ Hazards considered to have the most impact on growth and development include landslide susceptibility, erosion/ scour, earthquake and radon gas release.
- _ Acid sulphate soils have been indicated as being of high probability in proximity to Lake Jindabyne but have "no known occurrence" across the broader SAP.

Structure Plan Response

Nil.

Technical Study Report - Hydrogeology (WSP, January 2021)

- _ This study describes groundwater availability within the study area in consideration of groundwater being used as a potential resource for water supply.
- _ The study states that groundwater quality was found to be good within the region, but groundwater yields were considered unreliable for agricultural and residential purposes.
- _ The study states that groundwater availability is not guaranteed with the underlying bedrock granite and fractured rock geology contributing to a poor resource with high spatial variability.
- _ The study concludes that due to the constraints associated with obtaining suitable groundwater yields, alternative water sources should be considered.

Structure Plan Response

Nil.

Technical Study Report - Engineering - Renewable Energy (WSP, January 2021)

- _ This study seeks to identify renewable energy opportunities for the SAP.
- _ Two hydro electric power stations - part of the Snowy Mountains hydro electric scheme - are within the study area, Jindabyne Dam Mini Hydro Power Station and the Guthega Power Station. Greater use of renewable energy could be achieved locally through Power Purchase Agreements with Snowy Hydro.
- _ The study lists factors that make a large scale solar projects un-viable. Instead, distributed solar energy generation through roof top / small scale solar PV generation is encouraged,

Structure Plan Response

Nil.



7.12 Salt Impact



Snowy Mountains Special Activation Precinct - Salt Impact Management Plan Kosciuszko National Park (Department of Planning, Industry and Environment / WSP January 2021)

- _ This Plan provides opportunities for improvement in the management of salt on highways and roads controlled by Transport for NSW and high traffic areas in the Kosciuszko National Park and ski resort management units.
- _ Road salts are the preferred de-icing / anti-icing chemicals for maintaining winter safety, and it is noted that excessive use can have impacts to the natural and built environments.
- _ The Plan suggests the preparation of a holistic Salt Management Plan that is consistent with best practice and dynamic to allow for continual improvement.

Structure Plan Response

The Structure Plan could be amended to include detail on snow management needs such as snow storage and disposal locations, snow management facilities & buildings. Detailed spatial needs (e.g. road widths and vehicle parking) can be dealt with in future master planning for the SAP.



7.13 Biodiversity



Biodiversity Assessment Report - BAM Stage 1 Snowy Mountains Special Activation Precinct (Department of Planning, Industry and Environment / WSP, March 2021)

- _ This Report provides a preliminary assessment of the biodiversity values of the investigation area, and an understanding of the baseline biodiversity values of the area.
- _ This information will inform ongoing master plan evaluations to assist in avoiding and minimising impacts on biodiversity values and identifying any existing data gaps.
- _ The Report identifies landscape features across the SAP and then assesses their occurrence in the Structure Plan precincts.
- _ Habitat connectivity in particular was one landscape feature identified as occurring through many precinct areas.
- _ Development of the subject lands within the Kosciuszko National Park are unlikely

to have any broad landscape scale impacts to connectivity as these areas are already 'key hole' areas within the large expanse of surrounding habitats.

- _ Native vegetation recorded within the investigation area is considered to meet the final determination of two threatened ecological communities listed in the BC Act
- _ However the Report finds that while large areas of grasslands exist within the SAP, there are no naturally occurring grasslands within the area, as supported by regional vegetation mapping projects.
- _ The Report lists a number of endangered fauna species found in the area including; the Mountain Pygmy Possum, three species of Quoll and two species of Skink.
- _ Considering small scale habitat connectivity for small less mobile threatened mammal species will be a consideration as the design of the various precincts develops.

Evaluation of potential growth areas

- _ Ten development opportunity areas were evaluated within Kosciuszko National Park, and another eight development opportunity areas within the Jindabyne area have been assessed.
- _ Additional field surveys are recommended to ground truth and further verify biodiversity assessments, as limited access was available to some locations.

Biodiversity constraint ranking

- _ To assist with avoidance and minimisation of impacts during the master plan development phase, the biodiversity values recorded during the site surveys within the investigation area have been ranked in terms of biodiversity constraint as follows:
 - _ Tier 1 – Highest biodiversity value
 - _ Tier 2 – High biodiversity value
 - _ Tier 3 – Low biodiversity constraint
 - _ Tier 4 – Least constraint

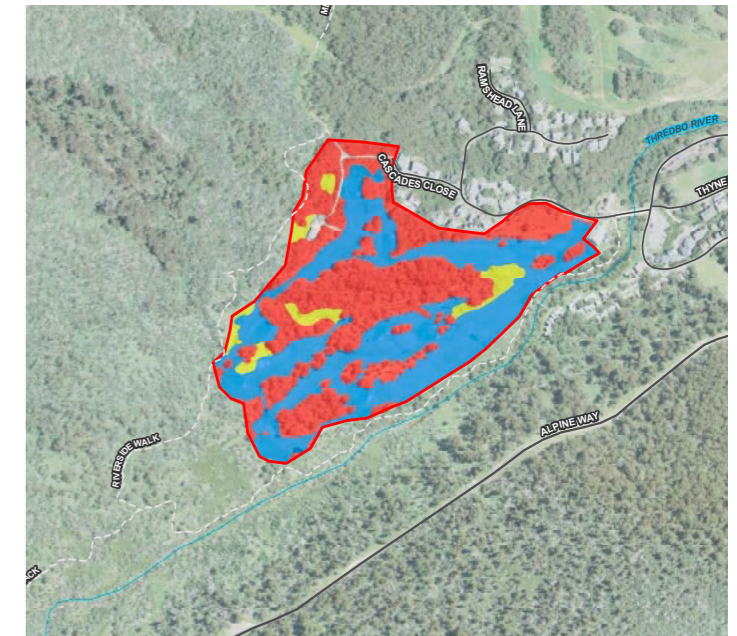


- _ "With a focus on avoiding and minimising impacts on biodiversity, development is therefore best suited to areas that are already disturbed including areas of existing development, cleared areas, and areas supporting exotic vegetation." This corresponds to Tiers 3 and 4.
- _ "Tier 1 and 2 have the highest biodiversity values and includes threatened ecological communities listed under the EPBC Act and/ or BC Act as well as areas of high quality habitat for threatened species. Development in these areas should be avoided or minimised as far as possible."
- _ "Residual impacts to biodiversity values would be assessed under the Biodiversity Assessment Methodology and require biodiversity offsetting in accordance with the NSW Biodiversity Offset Scheme."
- _ "Residual impacts to biodiversity listed under the EPBC Act would require assessment including the need for a referral to the Commonwealth Department of Agriculture, Water and the Environment."

Structure Plan Response

Preliminary biodiversity mapping has been used throughout the structure plan development, with review of draft structure plans by the biodiversity teams to help refine the plans.

Detailed site concept planning and development planning should continue to utilise this biodiversity mapping (potentially after ground truthing and updating) to refine plans in accordance with the avoidance hierarchy proposed.



Biodiversity mapping with Tiers 1 to 4 indicated has been included for potential alpine and Jindabyne growth areas (noting additional ground truthing is recommended).



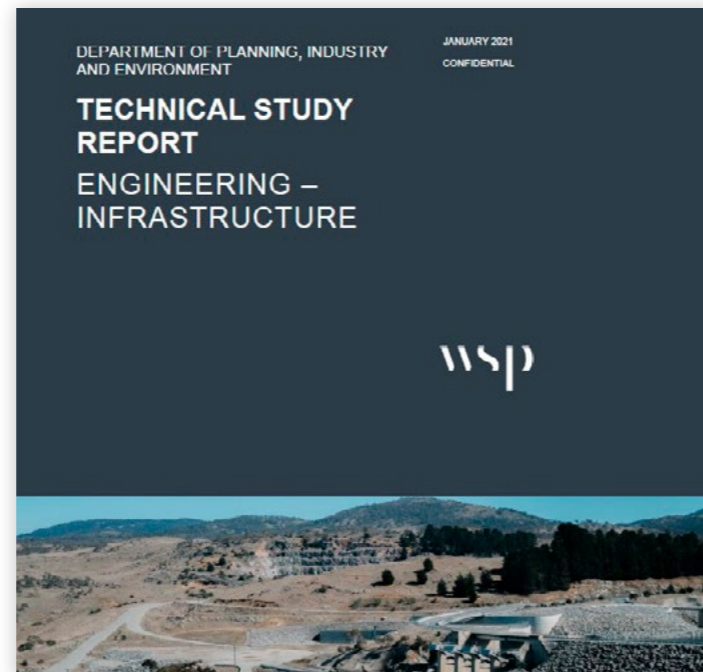
7.14 Infrastructure

WSP's engineering study identifies the general location and type of new services infrastructure that may be required to service growth areas. The high growth numbers predicated will lead to substantial redevelopment and upgrade requirements for many infrastructure networks.

Technical Study Report - Engineering Infrastructure (WSP, January 2021, updated April 2021)

This Report studies existing infrastructure networks and makes recommendations to upgrade or construct new services to meet the future needs of the Snowy Mountains SAP.

The infrastructure and services assessed include: water, waste water, stormwater, electricity and gas, telecommunications and internet services, and waste and resources recovery.



Five considerations align with the aspirations of the SAP, including:

1. Eliminating existing telecommunication blackspots and managing infrastructure issues experienced in the alpine resorts.
2. Ensuring planned and future sporting and education facilities have access to year round reliable infrastructure.
3. A holistic investigation into "green" network enhancements considering wastewater, renewable energy, flooding and water quality to pursue future ready environmentally sensitive solutions, and to reduce pollutant discharge into National Park waterways.
4. Limit the visual impact of infrastructure improvements to increase tourism amenity.
5. Balance peak and off peak seasonal demands and protecting existing and planned infrastructure from the impacts of extreme weather on network integrity and efficiency.

Proposed infrastructure _ East Jindabyne

_ Water treatment plant upgrades are required in the short term to manage existing water

quality risks. In the medium term additional water allocation will be required.

- _ Significant upgrades to existing network assets in East Jindabyne and Kunama may be required including reservoirs, booster pumps and reticulation mains.
- _ Wastewater from East Jindabyne is directed to the single treatment plant which will require upgrades and possible amendment to effluent discharge licence arrangements to cater for proposed growth.
- _ A new sewer pump station and rising main is required to service part of the development area (near the lake) which cannot be serviced by gravity.
- _ The East Jindabyne development area is fed from the East Jindabyne substation. 4.8 km of new 11kV feeder from the substation is likely to be required if electrical capacity in the existing feeders cannot accommodate the additional loads.
- _ No gas upgrades are proposed, however consolidation with gas providers will be required to plan for a future increase in demand as population and visitation increases.
- _ Fibre connection to the nearest telecommunication backbone along Kosciuszko Rd is recommended.



_ Proposed new development will require an expansion of the stormwater network to allow for drainage and discharge into waterways, vegetated swales along roads and paths, and stormwater tanks.

Proposed infrastructure _ Hatchery Bay resort development (west of Lake Jindabyne)

_ Approx. 3 km of new water main from the existing Jindabyne network is required to service the new development, and a dedicated reservoir to meet the specific needs of the development is recommended.

_ A new wastewater pump station is required at the site and approximately 3 km rising main.

_ An alternative strategy to develop private / stand alone wastewater treatment system with effluent re use for irrigation of the proposed golf course at this site has been identified.

_ The wastewater servicing strategy will need to be developed with the Council based on further detail of the proposed development.

_ 1.5 km of 11 kV feeder is required to extend the electrical supply from the Jindabyne substation to the location of the resort and

golf course, and a 175m 11kV extension is required to Rabbits Corner.

_ No gas upgrades are proposed, however consolidation with gas providers will be required to plan for a future increase in demand as population and visitation increases.

_ Fibre connection to the Jindabyne telecommunication is recommended.

_ Proposed new development will require an expansion of the stormwater network to allow for drainage and discharge into waterways, vegetated swales along roads and paths, and stormwater tanks.

Proposed infrastructure _ Central / South Jindabyne

_ Water treatment plant upgrades are required in the short term to manage existing water quality risks. Council are currently undertaking a scoping study.

_ In the short term, amendment of the Council's three water extraction licence allocations from Lake Jindabyne is required to enable available capacity at East Jindabyne and Kalkite to be used for the Jindabyne off-take. In the medium term additional overall allocation will also be required.

_ Significant upgrades to the existing water network assets in three pressure zones (Leesville, Barry Way and Jindabyne Low Zone) may be required including reservoirs, booster pumps and reticulation mains, this assumes the existing High Zone reservoir is decommissioned and a new reservoir and pump station supplied from the existing Jindabyne network to service the proposed growth area to the north west of the existing town.

_ The Jindabyne wastewater treatment plant will require significant upgrades and amendment to effluent discharge licence arrangements to cater for the potential growth.

_ Two new sewer pump stations are required as well as significant gravity network extensions to service the potential greenfield growth areas. Detailed investigation is required to develop a holistic wastewater network planning strategy to understand upgrade requirements in other areas across the SAP

_ Additional investigation is required to validate the economic feasibility of a recycled water scheme in Jindabyne.

_ New 11 kV feeders from the existing electrical distribution system to the locations of

proposed growth areas is required. A new 1 x 60 MVA transformer will be required to enable spare capacity in the system.

_ Relocation of two existing 11 kV overhead lines will be required to accommodate construction of the new Southern Connector Route.

_ The 66 kV and 33 kV transmission lines that feed in and out of the substation will need to be assessed and potentially diverted as part of the concept design works for the Southern Connector Route and the Gondola.

_ No gas upgrades are proposed, however consolidation with gas providers will be required to plan for a future increase in demand as population and visitation increases.

_ There are existing telecommunications network services in the area and extension of NBN and Telstra networks is required into the proposed development areas.

_ Grass swale and stormwater network upgrades are required to accommodate drainage requirements for the southern Connector route.

_ Two stormwater basins are required at either end of the Southern Connector route.

_ Other proposed new development will require an expansion of the stormwater network to allow for drainage and discharge into waterways, vegetated swales along roads and paths, and stormwater tanks.

_ Other smart infrastructure opportunities are recommended including, multi function pole network, public wifi, CCTV, sensors (parking and pedestrian) and smart lighting.

Proposed infrastructure _ Thredbo

_ An upgrade to the existing water source extraction licence and treatment system will be required to increase capacity from current limits, and investigation is required to understand the timing and staging of this.

_ Significant water network upgrades may also be required subject to further investigations.

_ Major wastewater upgrades (assumed complete replacement) of the existing treatment plant is required, along with the amendment of effluent discharge licence agreements to cater for the potential level of growth. Investigation is required to understand the timing and staging of this.

_ Significant wastewater network upgrades may also be required, subject to further

investigations.

_ Water consumption used for snow making may be offset through recycled water from the Thredbo wastewater treatment plant subject to detailed investigations and consultation with NPWS (the owner and operator of the Thredbo plant).

_ An additional 1 x 5 MVA transformer is required to provide capacity for future electrical demands.

_ No gas or telecommunications upgrades are proposed.

_ It is recommended to seal unsealed roads with concrete pavement and to develop a plan to increase the amount of kerbed road, and to construct a piped drainage system for Thredbo.

Proposed infrastructure _ Perisher

_ An upgrade to the existing water source extraction licence and treatment system will be required to increase capacity from current limits, and investigation is required to understand the timing and staging of this.

_ Significant water network upgrades will also be required subject to further investigations.

_ Major wastewater upgrades (assumed

complete replacement) of the existing wastewater treatment plant is required, along with the amendment of effluent discharge licence agreements to cater for the proposed level of growth. Investigation is required to understand the location, timing and staging of this.

_ Significant wastewater network upgrades will also be required, subject to further investigations.

_ Water consumption used for snow making may be offset through recycled water from the Perisher stormwater treatment plant subject to detailed investigations and consultation with NPWS (the owner and operator of the Perisher plant).

_ An additional 1 x 20 MVA transformer is required to provide electrical capacity for future demands. An expansion of the substation to accommodate a new transformer is required.

_ A potential new 11 kV feeder to the development site of the car park is required.

_ The relocation of 11 kV line at the car park to accommodate the development proposal or location of the solar farm is required.

_ A replacement of the existing switchgear in the substation is required by September

2022.

_ No gas upgrades are recommended.

_ An extension of the telecommunications fibre is required to create connectivity points for resorts, businesses and residents along Kosciuszko Road (currently connected via satellite).

_ It is recommended to seal unsealed roads with concrete pavement and to develop a plan to increase the amount of kerbed road, and to construct a piped drainage system for Perisher.

Proposed infrastructure _ other areas in the study area

_ Water treatment plant upgrades are required at Kalkite in the short term to manage existing water quality risks. Council are currently undertaking a scoping study to develop the requirements for this.

_ Charlotte Pass requires additional water storage and treatment facilities to accommodate future expansion, and increased summer usage.

_ Kalkite wastewater effluent disposal system requires upgrading to address existing performance and capacity issues with investigation required to develop practical



options.

- _ Sawpit Creek sewerage treatment plant wastewater / effluent disposal system requires an upgrade or modification to address existing performance and capacity issues.
- _ Charlotte Pass sewer treatment plant requires an upgrade to address existing performance and condition issues.
- _ A detailed analysis of the Essential Energy reticulation network is required to understand existing electrical capacity in 11 kV feeders and LV lines.
- _ An additional 1.6 MVA is required at Snowy Adit substation to support proposed future development in the area.
- _ An upgrade of 5 MVA is required to the distribution transformer at Bullocks Flat substation to accommodate future additional demand.
- _ No other gas upgrades have been proposed.
- _ Telecommunication fibre connections need to be established throughout the SAP area targeted towards growth areas.

Structure Plan Response

- _ Investigations noted.
- _ Actual infrastructure requirements for growth areas can only be determined when a prioritised growth strategy is finalised, probably after public consultation of DPIE's Master Plan (when more landowner and community feedback will be available), and potentially after further technical investigations (e.g. biodiversity assessments) are completed.
- _ While Structure Plans could be amended to locate and size new reservoirs, Water Treatment Plants and Sewerage Treatment Plants, along with servicing infrastructure (e.g. roads), the detail of these elements is uncertain and so locations and land requirements would be indicative only.



7.15 Carrying Capacity

Technical Study Report - Carrying Capacity (Department of Planning, Industry and Environment / WSP January 2021, updated April 2021)

- _ The purpose of the Report is to examine the current methodology, and propose improvements, within Kosciusko National Park (KNP), to propose improvements to the sustainable management of park visitors in Alpine resort and potentially other key recreational areas, and generate concepts for a carrying capacity approach that would be implemented in a proposed Snowy Mountains SAP framework.
- _ The Report defines carrying capacity as the number of visitors an area can sustain without degrading natural resources and visitor experiences (Prato, 2001).
- _ This definition allows for the inclusion of both social and ecological factors to decide on an appropriate level of use.
- _ Carrying capacity has moved away from simply visitor numbers, to managing the outcomes of human activity below agreed condition thresholds. Such as physical environmental impacts and the visitor experience.

- _ The current mechanism for managing visitor numbers within each Alpine Management Unit (AMU) is set limits on overnight accommodation via bed limits.
- _ The current maximum number of beds allowed for the AMU's of Perisher, Thredbo, Charlotte Pass and Selywn is 10,433.
- _ This bed limit was set and modelled in consideration of key service infrastructure such as sewer, waste and water capacities. The bed limits are also used by NPWS to determine market land value and leasing premiums across some resort areas.
- _ The Report states that in a built environment situation, the relationship between visitation and environmental conditions is difficult to discern and the bed number approach is not able to control the impacts of day visitors.
- _ The Report highlighted that currently the ongoing day to day environmental impacts of operations are managed through resort areas implementing Environmental Management Systems (EMS).
- _ The Report proposed a general classification and values requiring protection including sustainable recreation and community

- involvement , resort amenity, visitor experience and resort access.
- _ Proposed visitor experience objectives include:
 - _ To ensure visitors to the alpine resorts have an enjoyable and safe experience.
 - _ To ensure visitors have a range of recreational activities available.

Proposed Carrying Capacity Framework

- _ The report recommends and proposes a CCF that:
 - _ Retains a bed limit to provide certainty for stakeholders, however, allows for modification of the existing bed limit to an appropriate level based on the constraints identified during the master planning and outlined in proposed structure plans and yield analysis.

- _ Considers how the impacts of day visitation is managed and use the Snowy Mountains SAP Master Plan to determine infrastructure requirements to manage those day visitors based on growth projections.
- _ Considers ski resort capacities and recommends a Comfortable Carrying Capacity or 'skiers at one time' analysis to determine the need for on mountain alpine resort developments, and to manage visitor experience, amenity, recreational activities.
- _ Establishes a tiered approach to the establishment of ongoing environmental protections including monitoring, compliance and response. That is includes:
 - _ The Snowy Mountains SAP Master Plan and a future Delivery Plan to set strategic and high-level expectations around development opportunities in proposed development areas, including concepts and footprints.





- _ The requirement for large operators to implement and an ISO 14,0001 Environmental Management System, as well as specific site area management requirements.
- _ For smaller operators, include an alternate management approach, utilising smaller specific environmental management site plans (EMSPs) to protect important values the surrounding alpine resort SAP precincts in KNP.
- _ Is agreed to as part of the conditions of development approval within the SAP framework, with ongoing performance linked to staged approvals in that process.

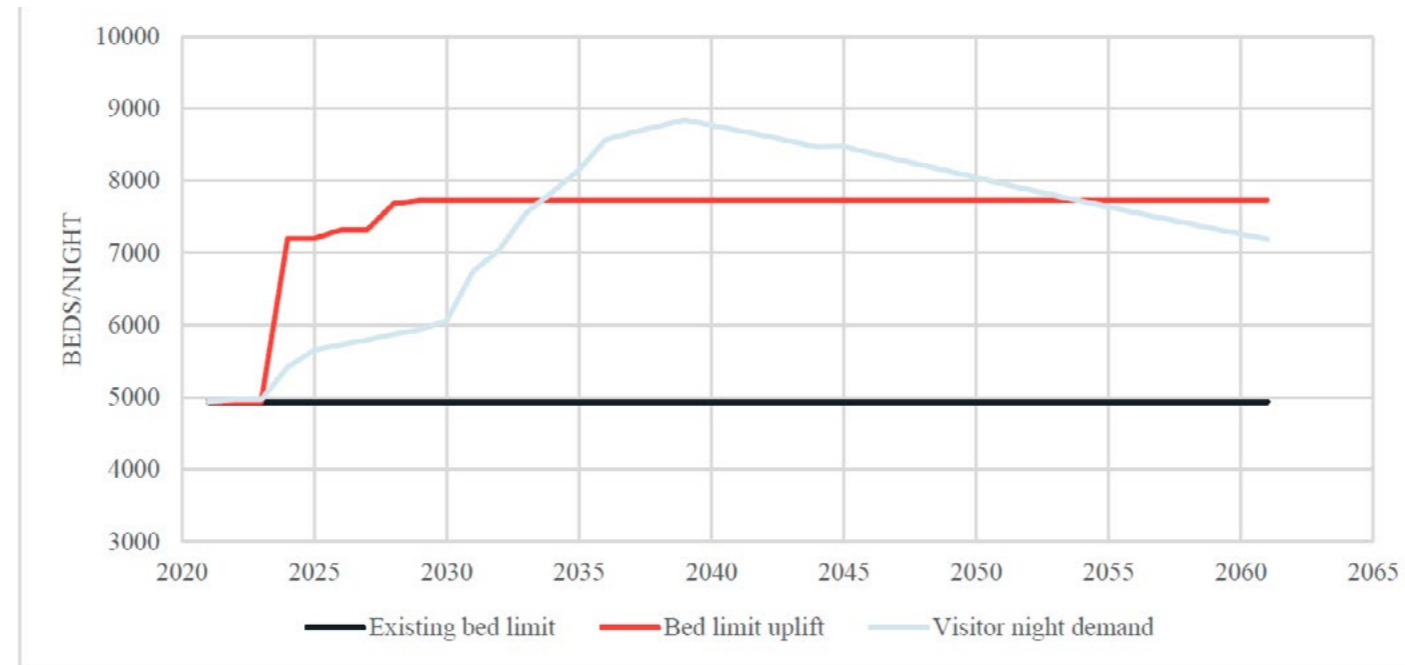


Figure 7.13 Perisher (and surrounds) bed limit vs proposed growth scenario provided by CIE (2020)

Structure Plan Response

The Structure Plan is influenced by carrying capacity, any changes to the Structure Plan development areas will need to be reflected in the carrying capacity modelling (and vice versa).

The Carrying Capacity report (April 2021) utilises draft Structure Plan dwelling and accommodation yields in order to test the carrying capacity of the region, and makes recommendations about how capacity gaps and future gaps can be managed.



7.16 Flooding and Water Quality

“The Study has assessed the growth areas of the SAP against existing flood behaviour and known water quality conditions to develop recommended measures to minimise the impact of growth on the surface water environment across the SAP.”

Technical Study Report - Engineering - Flooding and Water Quality (Department of Planning, Industry and Environment / WSP January 2021)

- _ This Study seeks to provide an understanding of flood behaviour and water quality across the SAP.
- _ The study area includes the Snowy River catchment which includes the sub catchment areas of Perisher Creek and tributaries, Thredbo River and tributaries, Lake Jindabyne and tributaries of Lees Creek, Wollondibby Creek, Rushes Creek, Widows Creek and Mowamba River.
- _ Detailed flood models were built for the area to understand flood behaviour using topographic information and aerial photography.
- _ The hydraulic model results show that flood behaviour within the SAP area is primarily confined to existing defined watercourses and rivers with very little areas exhibiting widespread surface flooding.
- _ The water quality and biological health monitoring results indicate total nitrogen levels are above national guidelines levels particularly in the Perisher Valley.
- _ The quality of water in Lake Jindabyne has not been assessed recently for stormwater

pollutants but is regularly tested at inlets to water treatment plants with a monitoring event in August 2020 indicating high turbidity levels.

- _ The Report advises that the application of salt to reduce the build up of ice on roads during winter season is an activity which could affect water quality, particularly in the streams of the Kosciuszko National Park.
- _ The Study has assessed the growth areas of the SAP against existing flood behaviour and known water quality conditions to develop recommended measures to minimise the impact of growth on the surface water environment across the SAP.
- _ The recommendations include:
 - _ Adopting a flood planning level of 1% annual exceedance probability plus 0.5 m freeboard.
 - _ Specifying flood compatible building material for buildings in the floodplain.
 - _ Promoting integrated water cycle management.
 - _ Capturing and re using stormwater from roofs at the source.
 - _ Implement stormwater quality treatment at the source.
 - _ Consider future climate change projections for rainfall in planning growth areas.

- _ The Report notes that the Snowy Hydro water operations require water releases from Jindabyne Dam into the Snowy River for environmental purposes, NSW DPIE - Water require environmental water releases to occur every day of the year and larger flow releases occur in Spring to better reflect the hydrology of the mixed rainfall / snow melt of rivers of the Snowy Mountains.
- _ The Report notes that the streams draining the resort areas of Perisher and Smiggin Holes have been diverted via the Perisher Range Aqueduct into Guthega Dam.
- _ The Report states climate change modelling suggests that mean annual precipitation in the Snowy Mountains region may decline by up to -9% by 2060- 2079 with results dominated by winter - spring decline (-15% to -20%).
- _ With continued warming there is very high confidence that snowfall, snow depth and the snow covered area will further decrease, particularly at low elevation areas.
- _ Snow making conditions for the future climate projections indicate a decrease in suitable conditions for the far future 2060- 2079 period.
- _ The Report found there are no water quality treatment devices currently operational in the Snowy Monaro Council area, and that in



August 2020 wet weather caused an increase in turbidity of the water near the intake which rendered the water unsafe for consumption.

_ The Report notes that the stormwater management plans prepared for the alpine villages of Thredbo and Perisher indicate that stormwater quality has been poor and management of stormwater runoff is crucial in maintaining the pristine nature of the downstream waterways.

_ An independent study identified potential sources of stormwater pollution to include; salt from de-icing activities, sediment runoff from dirt roads, oil and trace metals from parking areas, and rubbish.

_ The Report notes that sewerage treatment plants discharging into waterways create constant but mild pollution only, with long term impacts unknown.

_ The Report notes that hydraulic modelling identified a few key access routes that had low immunity to flooding, namely Friday Drive within Thredbo Village and the junction between Barry Way and Kosciuszko Road west of Jindabyne.

_ In addition a number of minor roads

particularly in Thredbo Village have been identified with low flood immunity.

_ It is recommended that the low immunity access locations be reviewed in more detail and that additional infrastructure be constructed to ensure the right level of immunity is reached.

_ The Report recommends water quality treatment should consider treatment as a train of treatment measures allowing for the removal of pollutants based on their typical size (i.e design to remove large particles first).

Structure Plan Response

The Structure Plan can be amended once further guidance on the flood inundation measures are provided and understood spatially.

Once stormwater treatment systems and infrastructure are specified, sized and located this information can be shown on the Structure Plan.

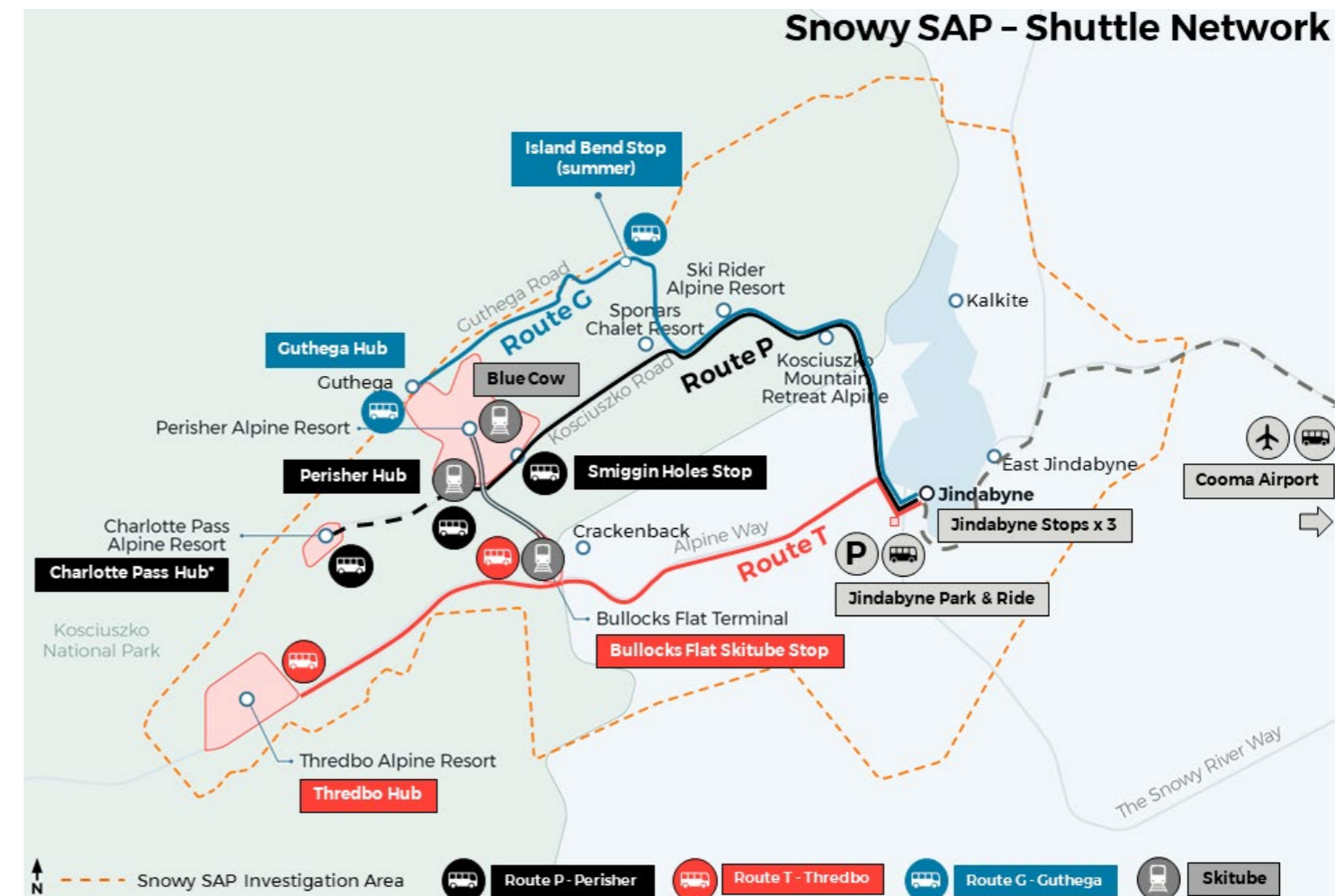


7.17 Transport

WSP's transport study proposes a new mountain shuttle bus network, limits on new car parking, Ski Tube upgrades, and intelligent transport systems among a package of measures to improve transport performance and safety between Jindabyne and Kosciuszko National Park destinations.

Technical Study Report - Engineering - Transport (WSP, April 2021)

- _ This Report gives an overview of the strategic transport context within the SAP area, provides case studies for benchmarking, and provides future transport opportunities, possible solutions and a strategy for implementation.
- _ The Report states that even without the projected growth in visitation proposed by the Structure Plan, **the transport network in the Snowy Mountains, specifically the road network and car parking, operates at capacity during the 14 week peak visitation period in the winter months.**
- _ The dramatic climatic conditions of the region are a key influence on the capacity and safety of the transport network.
- _ The aspirations for transport for the Snowy Mountains SAP focus on infrastructure and connectedness, and they address several aspirations for sustainability and wellness and also consider design and culture.
- _ Transport for NSW's key policy document *Future transport 2056* outlines the plans for a future transport network that is customer focussed, leverages new technologies and fosters successful places.



Mountain Shuttle concept



_ The Report notes that the more visitors who stay within the alpine resorts reduces the load on the transport system and the provision for day parking and public transport shuttles.

_ The Report notes that the existing connections to the Snowy Mountains SAP are predominantly road based reflecting the fact that 75% of visitors come from NSW, and 12% from the ACT.

_ It is noted that limited flights operate to the Snowy Mountains airport. Canberra International Airport maintains its role as the global gateway to the Snowy Mountains SAP, with Snowy Mountains Airport at Cooma remaining a future option for increased services from the eastern states of Australia with the potential for future growth.

_ Road networks regularly operate at capacity and journey time reliability becomes an issue in the winter months travelling between the ski resorts and Jindabyne varying between 35 minutes to three hours.

_ The Report suggests daily peak spreading could allow a greater use of the road network across the day, provided visitors are willing to adjust their start and finish times.

_ In addition to targeted investment in road improvements, the Report suggests investment in the Southern Connector road, and Park Road extension, as alternative transit routes.

_ The Study suggests the use of intelligent transport systems (ITS) will be crucial in improving the management of the Snowy Mountains SAP road network in the future.

_ Demands on car parking within Jindabyne town centre are high during the peak winter season.

_ Peak season car parking entry fees into the Kosciuszko National Park are comparatively inexpensive compared to bus passengers (\$29 per vehicle, and \$11.45 per adult per day).

_ The Report also states there has been a limit put on the number of coach parking spaces, and that overflow parking on the sides of alpine roads and within chain bays on peak snow days which is undesirable.

_ Charlotte Pass also experiences car parking demand and supply issues outside of the peak season in summer, and the Report suggests a master planning process to look at new parking solutions, parking management, and a summer loop shuttle system.

_ Limited disabled parking is noted, driver

guidance signage is proposed to indicate availability to drivers.

_ The Report suggests a future re think to the planning and operation of car parking with parking incorporated into major retail developments preferred over street parking, and parking on the edge of the retail core supported along with appropriately located and timed on street parks.

_ The Study recommends capping existing quantities of parking for day and overnight visitors at each of the resorts based on existing and proposed locations and previously submitted reports to government through development applications, with any perceived shortfall made up by new public transport services or increases to on-site accommodation capacity (e.g. more overnight accommodation).

_ Options to further increase day visitor parking at Kosciuskzo Road (near Perisher) and Smiggin Holes are not supported by WSP for reasons including road safety, congestion, and conflict with the recommended strategy of increasing on-mountain accommodation and introducing public transport (mountain shuttle service).

_ The Report notes that public transport to, from and within the Snowy Mountains SAP is currently limited and reflects the status of Jindabyne as a regional town rather than a year-round tourism hub, and the disparate approach to public transport does not offer the customer simple transport selection options or certainty in terms of frequency, journey time and cost.

_ The Report recommends the establishment of a dedicated shuttle service to operate from the Jindabyne town centre and a park and ride facility (adjacent to the proposed Southern Connector road) to the resorts in the National Park, potentially utilising zero emission vehicles, and operating all year round. The shuttle system could be fitted with trailers to allow for bulk transportation of mountain bikes and hikers during summer.

_ The privately operated Skitube rack railway operates between Bullocks Flat, Perisher and Blue Cow during the peak winter season only. 2011 data indicates the Skitube carries approximately 32% of the daily transport needs to Perisher with the return journey costing \$95 for adults and \$51 for children (2020 costs).

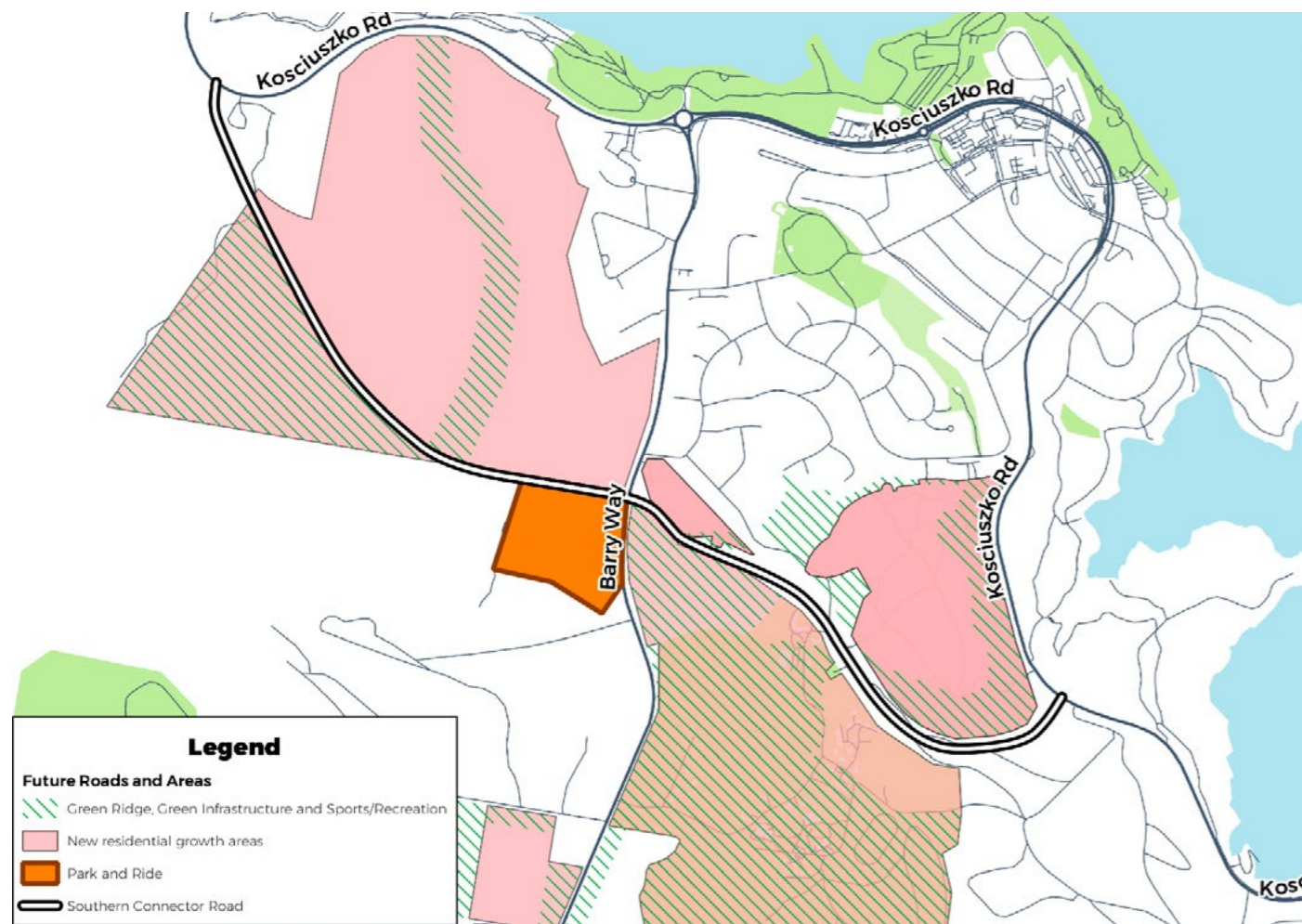


Diagram showing proposed road network and indicative location for new Park and Ride to support Mountain Shuttle Service.

_ The Skitube is considered a vital and strategic asset in the transport network, and the Report suggests a future investment strategy to provide increased transport capacity, lower fares, and subsidy opportunities (Government's Opal card) to increase the viability and success of the asset.

_ The Report suggests Gondolas can be a successful part of the future transport system, but only as part of a specific tourist attraction not accessible by other forms of transport.

_ Water transport on Lake Jindabyne is limited to recreational activities, as the water levels of the lake fluctuate by up to 100m due to the Snowy Hydro activities, the establishment of commercial maritime operations are problematic as wharf structure designs need to respond to fluctuations.

_ However the Report recommends that a wharf / pontoon structure be considered for the Jindabyne town centre designed to appropriately address the variable water levels to be a focal point for active interactions with the Lake.

_ Although the Report notes that the community of Jindabyne and the surrounding

areas are considered active people, the pedestrian and cycling network within the town centre and surrounding residential areas are not extensive or scaled to accommodate the influx of visitors during peak periods.

_ The Report notes that the urban realm improvements as outlined in the Structure Plan will significantly improve the safety and amenity of the Snowy Mountains SAP for walking and cycling, and a proposed pedestrian / cycling bridge is proposed across the Southern Connector to link the relocated central school to the community

_ The Report notes a pending Development Application for an off road link between East Jindabyne, Tyrolean Village and Cobbon Crescent, and the addition of a pedestrian bridge across the lake from Banjo Paterson Park in Jindabyne to the eastern shoreline south of Tyrolean Village- a distance of approximately 580m which would substantially reduce walk and cycle times.

_ The Report indicates broad support for the Monaro Rail trail, a new 213 km cycle touring facility proposed between Queanbeyan and Bombala utilising a former freight and passenger rail line corridor, a linkage spur of 54 km from Cooma to Jindabyne would be required.



- _ The Report notes that the future demand of transport is difficult to predict beyond 2031 with the rapid development of emerging transport technologies including electric and automated vehicles).
- _ For the SAP a higher growth scenario has been assessed in the Report to test future demand, this scenario is the Visitation Linked (high) scenario- that links population growth to visitation and tourism expenditure with an upper bound (The CIE, 15 December 2020).
- _ The transport assessment for this study has identified several pieces of infrastructure to provide for future development within the SAP. These are divided into access initiatives, place initiatives and sustainability initiatives.

Summary of proposed transport initiatives

- _ Access initiatives include:
 - _ **Public transport services from the airport to Jindabyne and the resorts.**
 - _ **Revising the bus network to include new tourist and growth areas.**
 - _ **Upgrade the Snowy River bridge at Dalgety.**
 - _ **Provide a sealed commuter pedestrian and cycle route from East Jindabyne to Jindabyne.**
 - _ **Deliver the Southern Connector road.**
 - _ **Improve footpath and crossing networks through Jindabyne targeting key pedestrian routes and destinations.**
 - _ **Improve connections for cycling to key destinations.**
 - _ **Improve public transport facilities (road priority, stop infrastructure).**
 - _ **Create a frequent and rapid mountain bus shuttle service linking key destinations.**

- _ **Implement real time information to manage parking capacities.**
- _ **Introduce ITS to alert drivers to conditions and improve road safety.**
- _ Place initiatives include:
 - _ **Extend the lakeside cycle route around the Lake.**
 - _ **Create new road side lookouts.**
 - _ **Revise Kosciuszko Road through Jindabyne to take advantage of reduced traffic.**
 - _ **Create a bus hub at the Information Centre.**
 - _ **Improve placemaking at transport hubs in the National Park and in Jindabyne.**
- _ Sustainability Initiatives include:
 - _ **Upgrade parts of Kosciuszko Road between East Jindabyne and the Jindabyne Dam.**

Structure Plan Response

The Structure Plan has included all transport proposals where practical, especially proposed road, active transport and mountain shuttle infrastructure.



8. Settlement Pattern Options

This section summarises alternative settlement patterns for growing the town over time



Jindabyne growth opportunities

Desktop analysis at early stages of the master planning included the review of alternative settlement patterns for growing the town over time

Early urban design options for the growth of Jindabyne included:

- **Town centre consolidation**
- **Lakeside Villages**
- **New neighbourhoods**
- **Town + country**
- **Balanced town plan**

Strategic options for town growth

A number of high level options for the growth of Jindabyne were contemplated in this analysis and have been informed by:

- _desktop review of site issues and opportunities.
- _including a review of the LEP, previous planning including Go Jindabyne, recent developments, and other available concepts.
- _comparison with best practice town planning principles.



Jindabyne looking over town centre, suburbs towards Sport and Recreation Centre and potential growth areas.

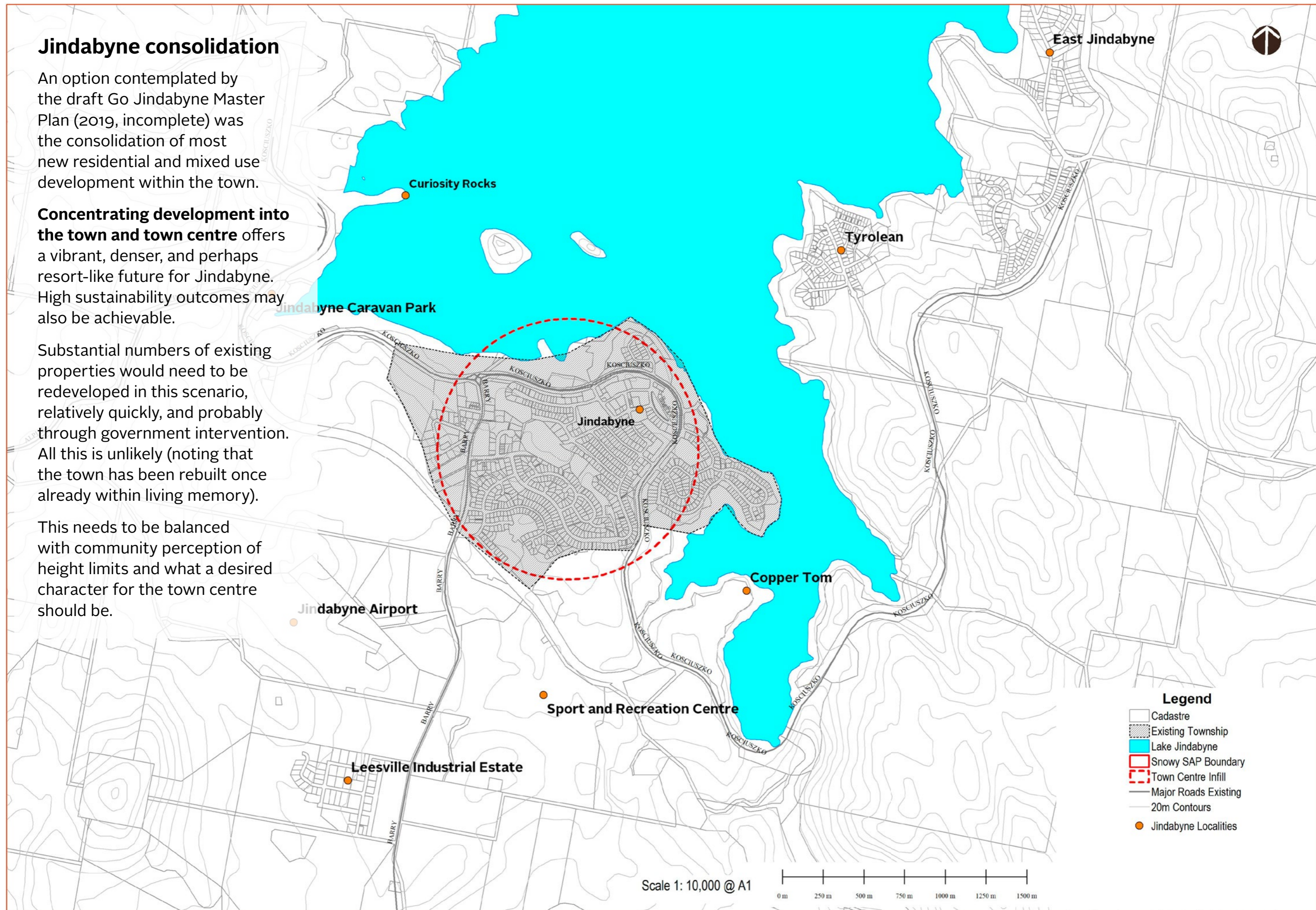
Jindabyne consolidation

An option contemplated by the draft Go Jindabyne Master Plan (2019, incomplete) was the consolidation of most new residential and mixed use development within the town.

Concentrating development into the town and town centre offers a vibrant, denser, and perhaps resort-like future for Jindabyne. High sustainability outcomes may also be achievable.

Substantial numbers of existing properties would need to be redeveloped in this scenario, relatively quickly, and probably through government intervention. All this is unlikely (noting that the town has been rebuilt once already within living memory).

This needs to be balanced with community perception of height limits and what a desired character for the town centre should be.



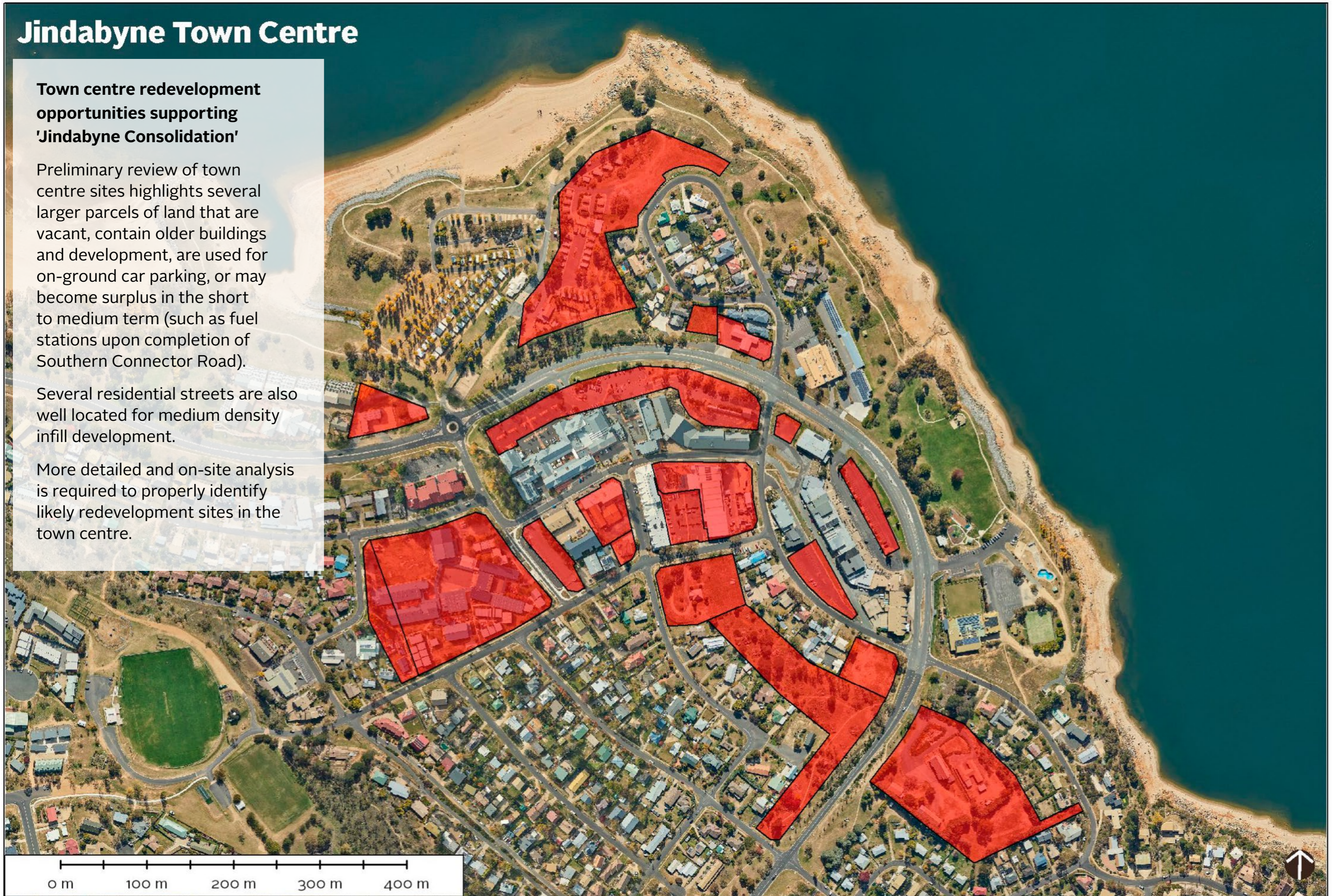
Jindabyne Town Centre

Town centre redevelopment opportunities supporting 'Jindabyne Consolidation'

Preliminary review of town centre sites highlights several larger parcels of land that are vacant, contain older buildings and development, are used for on-ground car parking, or may become surplus in the short to medium term (such as fuel stations upon completion of Southern Connector Road).

Several residential streets are also well located for medium density infill development.

More detailed and on-site analysis is required to properly identify likely redevelopment sites in the town centre.





Around the town centre

Several residential streets and sites near the town centre are well located for infill development. Many sites are relatively large and could have surplus land.

More detailed and on-site analysis is required to properly identify likely redevelopment sites.



Lakeside Villages

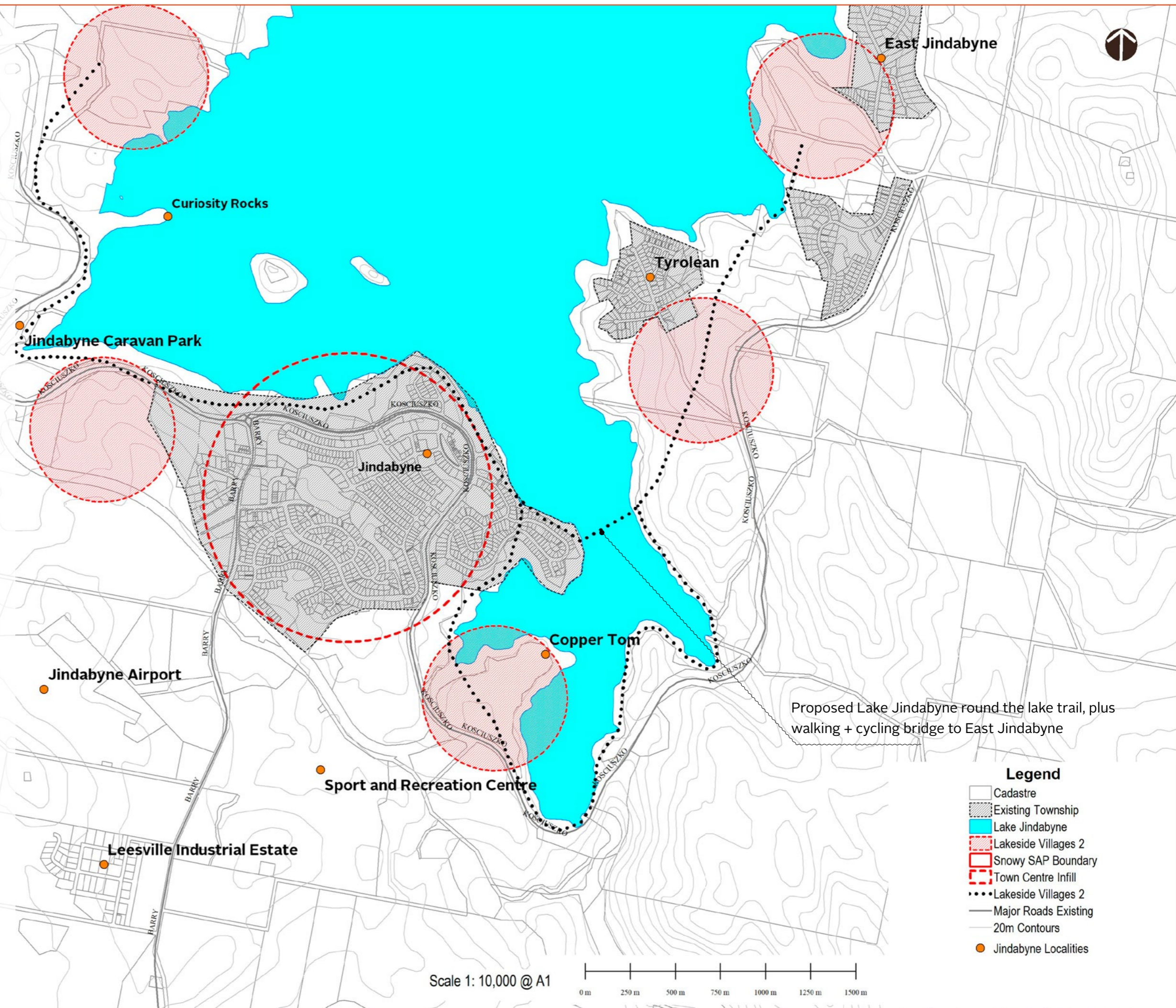
Many of Jindabyne's most attractive locations enjoy lakeside settings. In fact many of Australia's best addresses are near water.

Tourist accommodation as well as residential development takes advantage of such locations at Jindabyne.

Further developing a series of '**Lakeside Villages**' could maximise housing, accommodation and lifestyle opportunities close to one place people want to be, the water - **emphasising Lake Jindabyne as a focal point.**

New development within Jindabyne would also be encouraged.

There is sensitivity around development on the western side of the lake. In addition, this more spread-out urban area could worsen today's transport and traffic complaints, unless connectivity from an signature walking and cycling network including an **active transport bridge to East Jindabyne** was prioritised. This would benefit visitors and residents and sustainability.



New neighbourhoods

New, well-designed neighbourhoods, located contiguous to existing built up areas could represent a good practice town growth model.

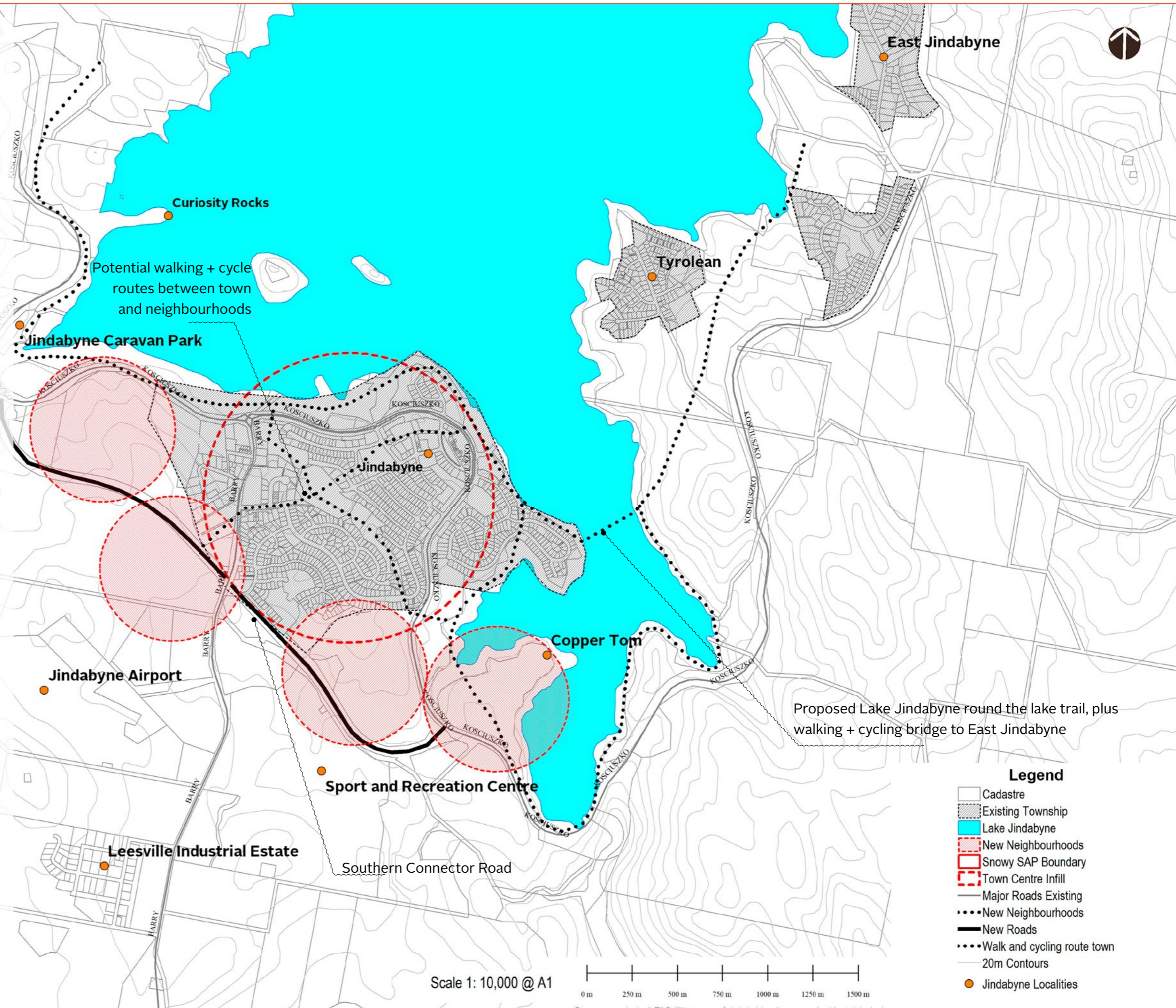
Neighbourhoods scaled for walking and well connected to town, to open space, to schools and community services.

Logical residential growth areas focussed on existing structure, have already been identified in some of these locations and are likely to be easier to service.

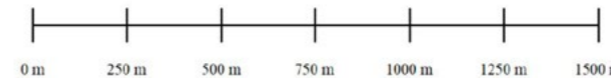
A new 'southern connector' road would help provide access to these new neighbourhoods, while also conveying through-traffic safely.

Connecting across as well as along this new road will be an important design objective.

A more compact growth option than 'lakeside villages', town expansion in this form will offer lake views in some places, and potentially more affordable land than waterfront property.



Scale 1: 10,000 @ A1

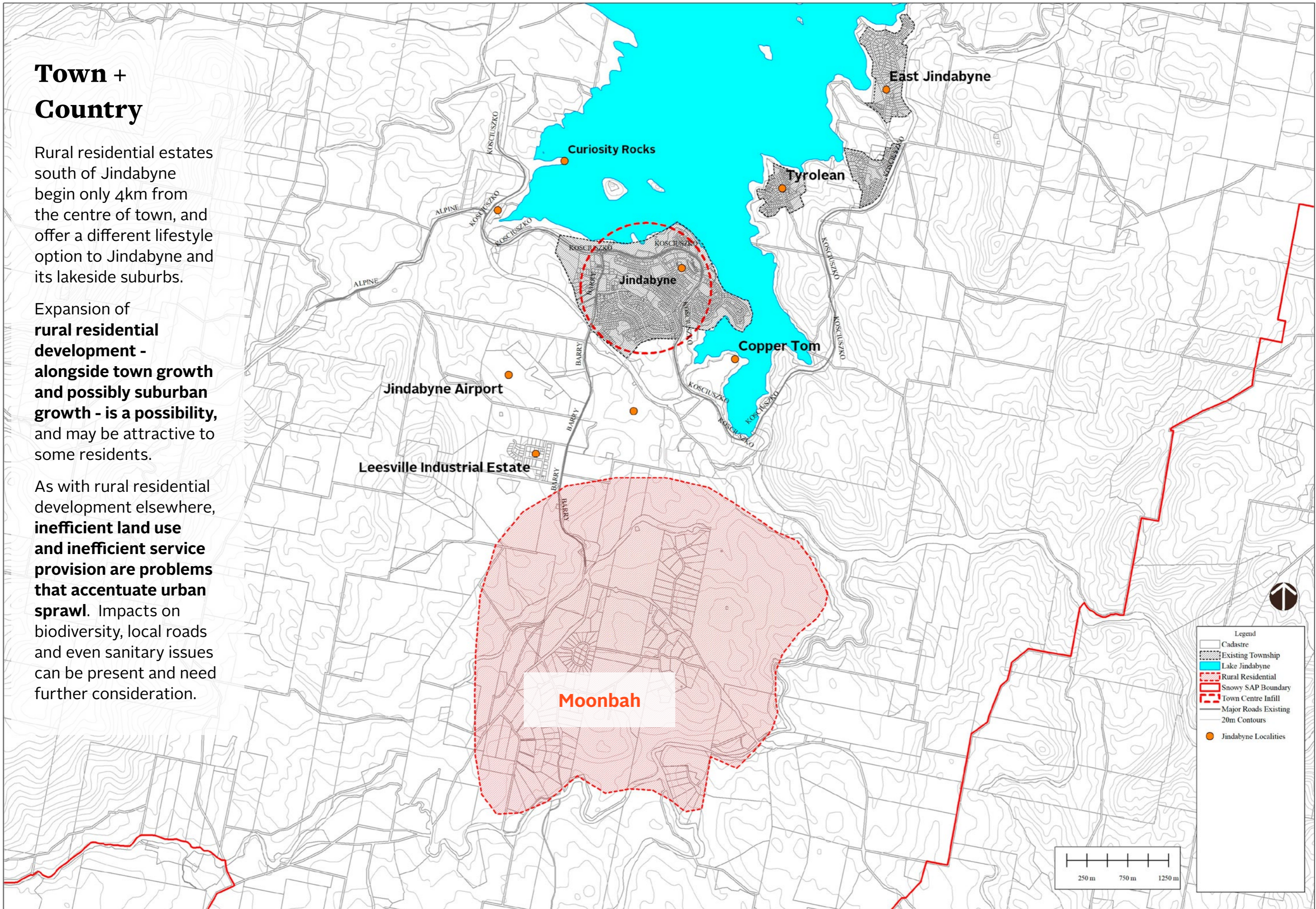


Town + Country

Rural residential estates south of Jindabyne begin only 4km from the centre of town, and offer a different lifestyle option to Jindabyne and its lakeside suburbs.

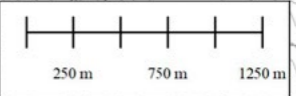
Expansion of **rural residential development - alongside town growth and possibly suburban growth - is a possibility**, and may be attractive to some residents.

As with rural residential development elsewhere, **inefficient land use and inefficient service provision are problems that accentuate urban sprawl**. Impacts on biodiversity, local roads and even sanitary issues can be present and need further consideration.



Legend

- Cadastre
- Existing Township
- Lake Jindabyne
- Rural Residential
- Snowy SAP Boundary
- Town Centre Infill
- Major Roads Existing
- 20m Contours
- Jindabyne Localities

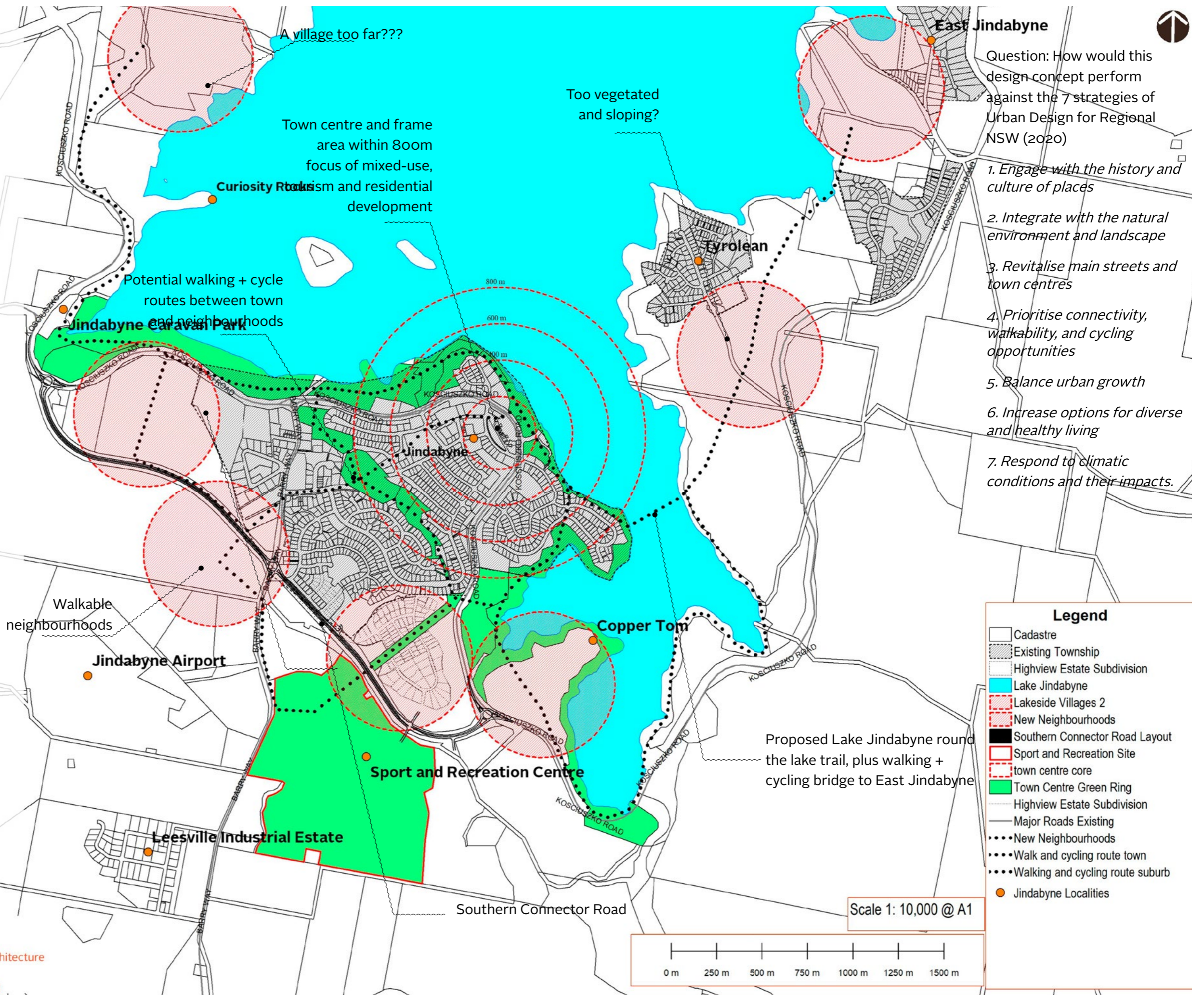


Balanced town plan?

Mixed-use town centre development supporting residential and visitor growth. Focus within 800m of centre, **framed by green space** and maximising lakefront access.

New, well-designed **neighbourhoods, scaled for walking and well connected to town, to open space, schools and community services** (including Sport + Rec Site) could represent a good practice town growth model.

Selected lakeside village opportunities providing additional lifestyle and price options. Limited rural residential at existing estates (not shown).



A village too far???

Too vegetated and sloping?

Town centre and frame area within 800m focus of mixed-use, tourism and residential development

Potential walking + cycle routes between town and neighbourhoods

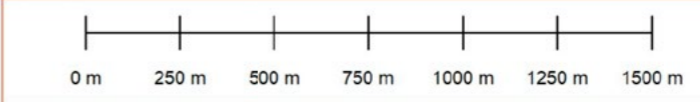
Question: How would this design concept perform against the 7 strategies of Urban Design for Regional NSW (2020)

1. Engage with the history and culture of places
2. Integrate with the natural environment and landscape
3. Revitalise main streets and town centres
4. Prioritise connectivity, walkability, and cycling opportunities
5. Balance urban growth
6. Increase options for diverse and healthy living
7. Respond to climatic conditions and their impacts.

Legend

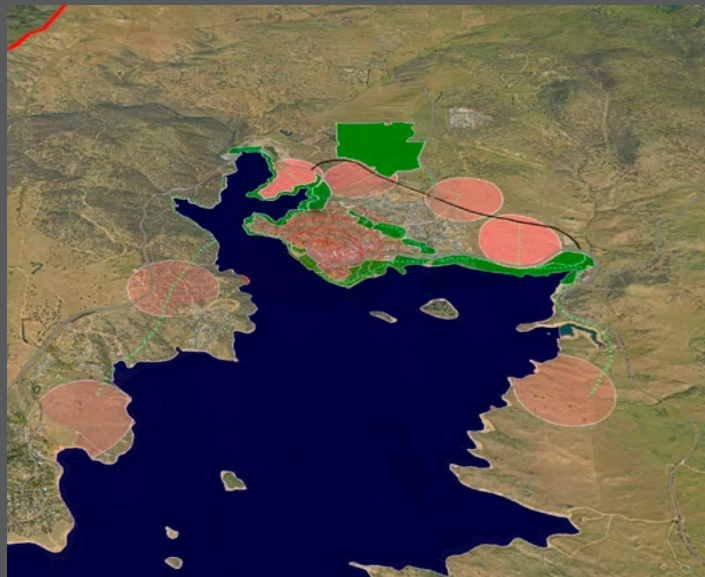
- Cadastre
- ▨ Existing Township
- ▤ Highview Estate Subdivision
- Lake Jindabyne
- ▨ Lakeside Villages 2
- ▨ New Neighbourhoods
- ▬ Southern Connector Road Layout
- ▨ Sport and Recreation Site
- ▨ town centre core
- Town Centre Green Ring
- ▤ Highview Estate Subdivision
- ▬ Major Roads Existing
- ⋯ New Neighbourhoods
- ⋯ Walk and cycling route town
- ⋯ Walking and cycling route suburb
- Jindabyne Localities

Scale 1: 10,000 @ A1



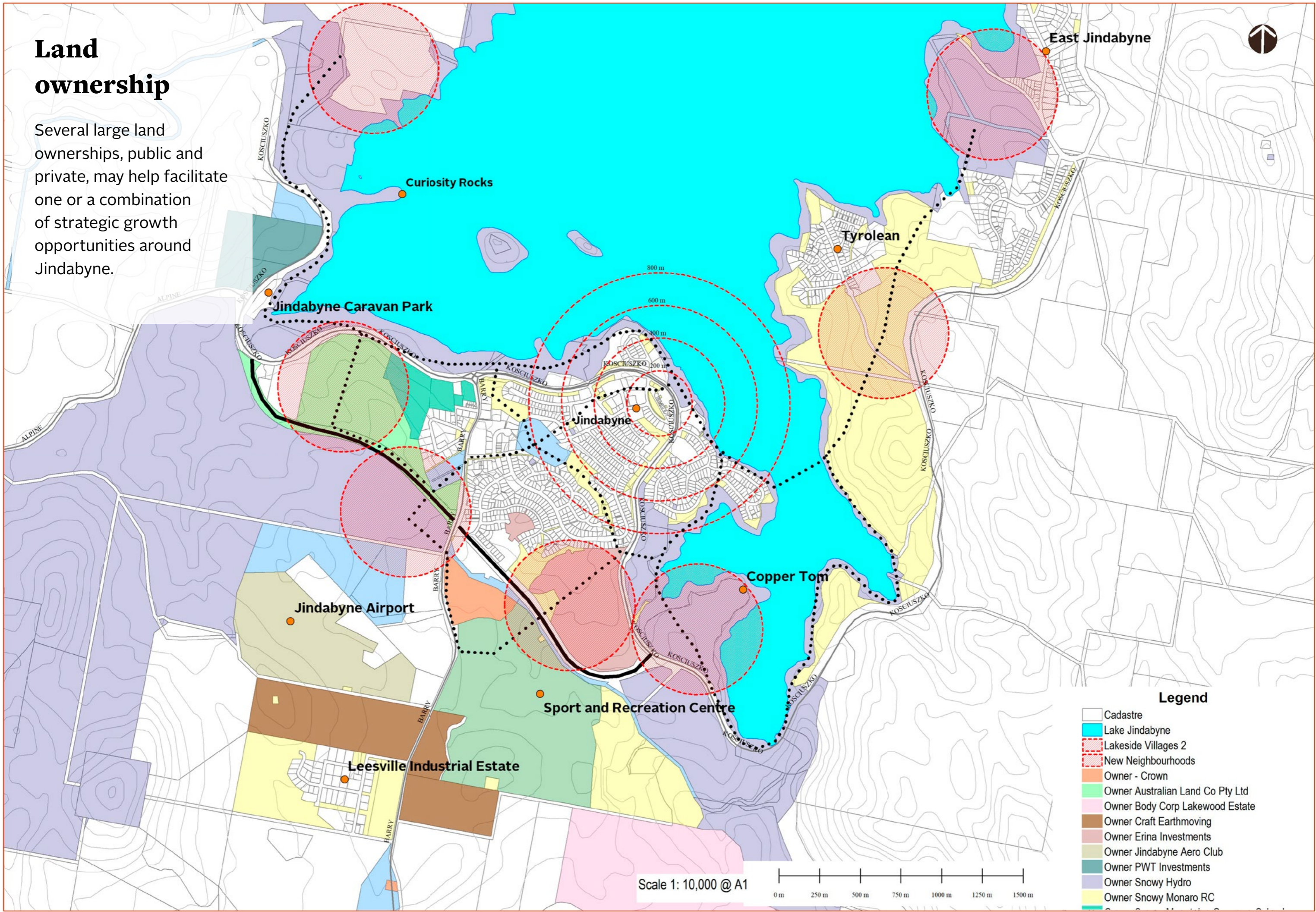


Balanced town plan concept _illustration



Land ownership

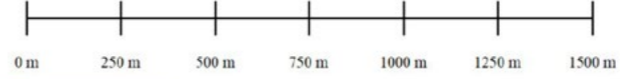
Several large land ownerships, public and private, may help facilitate one or a combination of strategic growth opportunities around Jindabyne.



Legend

- Cadastre
- Lake Jindabyne
- Lakeside Villages 2
- New Neighbourhoods
- Owner - Crown
- Owner Australian Land Co Pty Ltd
- Owner Body Corp Lakewood Estate
- Owner Craft Earthmoving
- Owner Erina Investments
- Owner Jindabyne Aero Club
- Owner PWT Investments
- Owner Snowy Hydro
- Owner Snowy Monaro RC

Scale 1: 10,000 @ A1





Example of walkable neighbourhood concept for residential growth areas in a regional town

West Toowoomba Structure Plan (2015, Jensen PLUS)

Neighbourhoods and urban structure#1

Neighbourhood design and the structuring of growth areas around neighbourhoods has been much discussed in Australian urban design circles.

Many concepts have attributes similar to this design for a growth area at Toowoomba in southern Queensland:

- _ connected, compact and walkable neighbourhoods with a recognisable focal point and local identities
- _ variety of housing types and densities
- _ mixed use communities
- _ reduced car dependency and increased travel choice
- _ protection of natural environment and place values
- _ efficient use of infrastructure.

These qualities correlate well with the 7 strategies of *Urban Design for Regional NSW (2020)* and other leading urban design guidance.



LEGEND

- A** Local Open Space as neighbourhood focal point and location for local play and recreation. Network of connected local open spaces allow for a range of environmental experiences through new growth areas.
- B** Multi-function linear open spaces with integrated design to convey stormwater and provide for walking trails, recreation hubs, biodiversity and community interaction.
- C** Residential neighbourhoods scaled for walking (about five-minutes from centre to edge) and designed around a central hub.
- D** Central hub containing any of the following: open space, community facilities, bus stop, attached housing, mixed use buildings, local shops or businesses. Hubs always located along major streets connecting neighbourhoods together, for ease of access and visibility to customers.
- E** Highly connected grid of local and connector (collector) streets to maximise accessibility and travel choices to the community, and avoid channelling traffic onto a small number of busy, low amenity roads
- F** Housing fronts all streets, with rear, side and controlled driveway access where traffic volumes dictate.
- G** Diverse mix of housing choices including attached housing in locations with good access to services, major streets, and open spaces, and lower scale detached housing towards the neighbourhood edge.



Neighbourhoods and urban structure #2

A separate analysis into recent trends for growth area development in NSW by Jensen PLUS (2020), to inform neighbourhood and urban structuring for a growth area in regional NSW suggests that **many of the attributes sought by the model neighbourhood design on the previous page are being partly achieved.**

The analysis considered projects at:

- _ Marsden Park
- _ Edmondson Park
- _ South East Wilton
- _ Googong North
- _ Albury.

Note: these projects are edge of city and much larger than growth needs at Jindabyne will ever be, but provide good insights into how market preferences and town planning principles intersect.

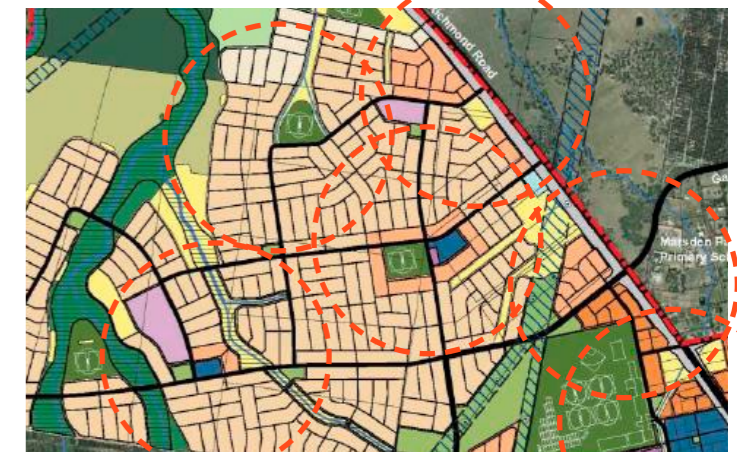
Comments on recent NSW residential growth areas studied

1. **Gridded street networks** - as advocated by a walkable neighbourhood structure - are back, but urban-edge locations, poor public transport and active transport options mean that cars still dominate.
2. **Little housing choice?** - typically a choice only between 5-bed detached or a 3-bed terrace.
3. **Overall densities of 15-20 dwellings per hectare** - more efficient use of land than earlier decades but still too low to support public transport or mixed-use location centres. (At Jindabyne market preferences and land values may well dictate lower average densities again, and new local centres may be unlikely in the context of the 'town centre first' strategy.)
4. **Environmental and cultural areas are better protected** than in the past.
5. **Little innovation in housing design** e.g. accessibility, social mix, sustainability, architecture, landscape.

6. **School and local centres going in early** (early school investment could be a catalyst for further growth at Jindabyne)
7. **Better urban structuring at the neighbourhood and suburb level**, potentially driven by better planning policy around public and active transport, environmental protection, neighbourhood design and other urban design principles.



Attached/terrace homes now common in fringe growth areas in all major cities in Australia (Marsden Park, NSW)



Neighbourhood structure Marsden Park, NSW growth area (n'hood identification by Jensen PLUS)



Connected major street network for proposed growth area at Albury



9. Additional Growth Area Options

During Master Planning, a number of additional land development options were also examined. Not all growth areas have been selected to be included in the SAP Master Plan.



9.1 Additional Growth Area Option - South Jindabyne

Two residential growth parcels on the south side of Jindabyne

Area _ 35.33ha

(Areas approximate and may be inclusive of non-developable land for roads, infrastructure, open space, drainage etc.)

The South Jindabyne Structure Plan promotes a logical and efficient residential expansion of Jindabyne, contiguous to existing built up areas.

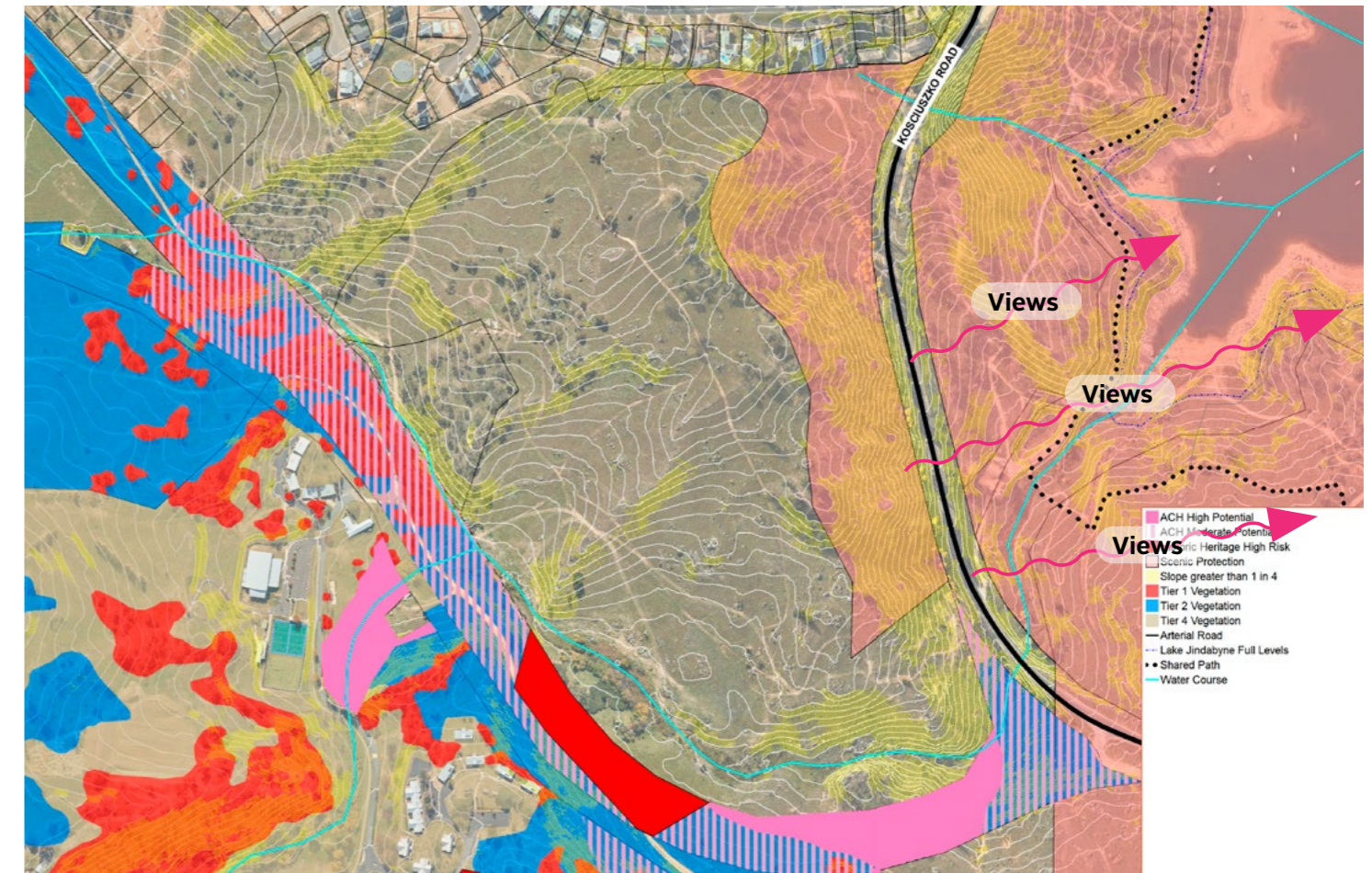
Introduction

This growth area is on the fringes of Jindabyne's present-day residential expansion, on the south side of town about 1km from the town centre. The growth area comprises a large parcel of ~32ha, and a smaller area of ~3ha close to Barry Way.

Planning proposals and development applications have previously been made over (some of) the land. This Structure Plan proposes a residential growth area maximising connections to surrounding areas, and increasing housing diversity and supply in a location relatively close to town services and amenities.

Existing conditions

The land is mostly vacant with sparse vegetation. Much of the land slopes south towards a gentle valley containing Lees Creek (and the alignment for the proposed Southern Connector Road, as well as potentially for new infrastructure connections). On the other side of the valley is Jindabyne Sport and Recreation Centre.



Parts of the growth area adjoin recent stages of the Highview Estate, with the bulk of the land in the same land ownership and providing a logical future extension of the Highview project.

A number of zones of the LEP apply to the land including Primary Production, Large Lot Residential and General Residential.

- I High Potential
- I Moderate Potential
- Scenic Heritage High Risk
- Scenic Protection
- Slope greater than 1 in 4
- Tier 1 Vegetation
- Tier 2 Vegetation
- Tier 4 Vegetation
- Arterial Road
- Lake Jindabyne Full Levels
- Shared Path
- Water Course

STRUCTURE PLAN AREAS

SUB PRECINCT

Residential	12.91ha
Neighbourhood	12.91ha
Green Infrastructure	13.39ha
Commercial	1ha
Opportunity	1ha
Residential Lifestyle - Larger Suburban Lots	8.03ha
Total	35.33ha

Areas approximate and may be inclusive of non-developable land for roads, infrastructure, open space, drainage etc.

**South Jindabyne (Growth Area 2) Structure Plan
A1@1:2000 and A3@1:4000**

Primary access to estate from Southern Connector Road. T-intersection approx. 300m away from Sport and Recreation access to east

Walking and cycling paths around outside of residential area

Local street access to Gippsland Street

AREA 2B - 4.8ha

Elevated residential land for subdivision (average 450m²) for a mix of detached houses and some attached housing

Steep terrain retained as green infrastructure (revegetation and walking trails), providing visual buffer between development and Kosciuszko Road (main entry to Jindabyne)

AREA 2A - 32.13ha

Residential Neighbourhood - 32.12ha

Land close to Southern Connector and Barry Way with opportunities for businesses and services requiring good road access e.g. ski hire, park and ride, emergency services, child care, fuel + services

Footbridge proposed between residential neighbourhoods and Sport + Education Precinct

Larger residential allotments (average 1000m²) for tree retention on site.

Local street frontage to edge of development - front of dwellings visible from Kosciuszko Road

Crown Land

Land retained as green infrastructure, (green space, revegetation + walking trails), owned by Snowy Monaro Regional Council

5 min walk

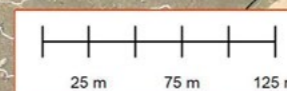
Views

New access to Sport + Recreation from Southern Connector Road

Alternative access option

Southern Connector Road

- APZ
- Commercial Node
- Green Infrastructure
- Large Lots
- Open Space
- Precinct
- Residential Neighbourhood
- Slope greater than 1 in 4
- 400m Walk
- Road
- Shared Path
- Southern Connector Road
- Trees
- Vehicle Access
- Water Course
- Views





(cont.)

South Jindabyne

Future development

- _ The Structure Plan proposes an efficient and well planned residential development of up to 250 dwellings. The vast majority of these (~225) will be in the larger land parcel elevated above Kosciuszko Road near the entrance to Jindabyne.
- _ Future development focuses on creating a neighbourhood of connected streets that is scaled for walking and is well connected to town, to open space, community services and essential infrastructure.
- _ The northern half of Area 2A will be subdivided (450-600m² typical lot sizes) to deliver a mix of detached housing with some semi-detached housing likely.
- _ The southern part of Area 2A is planned to include larger residential allotments (average of 1,000m²) for tree retention onsite.
- _ A small amount of tourist accommodation is likely to be interspersed through the neighbourhood, but housing for residents is intended to typify this community.
- _ Areas of steep terrain on the fringes of the growth area will be retained as a network of



View across Lees Creek valley towards growth area sloping up and left



View north towards recently developed Jilamatong Street (sloping), part of the Highview Estate. Area 2B is the flatter lands in the foreground

Area _ 35.33ha

(Areas approximate and may be inclusive of non-developable land for roads, infrastructure, open space, drainage etc.)



3D model of South Jindabyne growth area with Barry Way in the foreground, Kosciuszko Road in the background and the proposed Southern Connector linking them. The Sport + Education precinct is on the right of the image.

(cont.)

South Jindabyne

LAND USES	
SUB PRECINCT	PROPOSED LAND USES*
TBC	<ul style="list-style-type: none"> _ attached dwellings _ dual occupancies _ dwelling houses _ multi dwelling housing _ residential flat buildings _ secondary dwellings _ semi-detached dwellings _ seniors housing _ home business _ bed & breakfast accommodation _ specialised retail premises (e.g. ski hire at Barry Way centre) _ restaurants or cafes (at Barry Way centre) _ take-away food & drink premises (at Barry Way centre) _ neighbourhood shops (at Barry Way centre) _ roads _ centre-based child care facilities _ home-based child care _ signage _ public open space _ environmental protection works _ Signage

* This list comprises land uses expected, envisaged and/or desired to support the objectives of the SAP. Some additional land use terms may be included in the Master Plan to promote increased flexibility even if the additional land uses are unlikely to occur

green infrastructure (revegetation buffers, green space and walking trails). It is intended that this network will protect existing vegetation and biodiversity areas, provide buffer planting / screening and windbreaks. This approach is consistent with previous plans for the land.

_ Area 2B close to Barry Way and the Southern Connector Road includes commercial land use opportunities to support community services (e.g. child care) and potentially visitor services such as ski hire and the like.

_ A footbridge is proposed across the Southern Connector Road to connect Jindabyne and the proposed residential neighbourhoods with the adjacent Sports and Education Precinct (and future schools).

_ Additional walking and cycling paths around the growth area should be developed for superior access and local amenity.

Rationale for change

_ This growth area is a natural urban extension for Jindabyne, being adjacent to the built-up area (including current subdivisions), and soon to be edged (and accessed) by the Southern Connector Road. The land is partially zoned for

residential uses under the LEP, and presents a realistic short-term growth opportunity.

_ Area 2A is subject to a development application for residential subdivision of approximately 110 allotments. In increasing (potentially doubling) the potential yield for this land, the intent it is to achieve a more efficient use of valuable land close to town.

_ A planning proposal is under consideration by Snowy Monaro Regional Council for the rezoning the smaller Area 2B to low density residential and reduce the minimum lot size from 40ha to 700sqm and introducing a floor space ration of 0.5. Should the rezoning approach be continued the site may yield approx. 39 residential allotments and one allotment allocated for a childcare centre development.

_ A consideration is that part of Area 2B was (in earlier decades) identified as a potential road corridor, but not preserved for this purpose. As an alternative alignment for the Southern Connector Road is identified to the south of Area 2B, this does not appear to represent a significant constraint to the residential use of this land.

Further Investigations

_ Detailed biodiversity assesment has not been undertaken for this precinct and may have an impact on final master planning

Recommendations for the Master Plan and Delivery Plan

- _ Facilitate the development of South Jindabyne growth area through appropriate Sub Precinct and Zoning.
- _ Promote the development of a diversity of lot sizes and housing types to support diversity, housing affordability and lifestyle choice.
- _ Guide the form, scale, and height of buildings, street and public spaces to create a high quality and sustainable residential environment.
- _ Develop the Southern Connector Road to facilitate access, infrastructure and environmental improvements to land adjacent to road corridor.

**'Illustrative master plan'
showing concept for
future development at
South Jindabyne**

- 1 Local services and retail, child care etc. with high visibility from Southern Connector Road and Barry Way
- 2 Opportunity for local street connection to new southern neighbourhood, footbridge over Southern Connector providing excellent access to schools and sporting fields
- 3 Detached dwellings with some semi-detached houses possible along Rawson Street, typical lot size 450-600m²
- 4 Local connecting street provides easy neighbourhood access. Increased housing choices along key street including compact allotments, semi-detached and row/terrace housing
- 5 Creek and riparian habitats rehabilitated as part of Southern Connector Road
- 6 Southern Connector Road
- 7 Local streets oriented around steep slopes to minimise cut and fill

- 8 Local street connection to Gippsland Street
- 9 Walking paths and trails
- 10 Attached dwellings e.g. two-storey townhouses or units on selected corner sites
- 11 Steeper land on eastern edge retained as green space, with conservation and revegetation opportunities. Provides green visual gateway to Jindabyne when viewed from Kosciuszko Road
- 12 Detached houses on 450-600m² lots
- 13 Perimeter street avoids rear of houses facing Kosciuszko Road
- 14 Larger residential lots average 1000m², enables increased tree retention and garden space
- 15 Approx. five minute walk from centre of neighbourhood

5 MIN WALK



(cont.)

South Jindabyne



3D model of South Jindabyne growth area viewed from the south-east, with the Southern Connector shown to the bottom of the image. Jindabyne town centre to the top of the image



Multiple dwellings are becoming increasingly common around Jindabyne



Example of residential housing fronting onto public parks



Attached housing fronting street with strong landscape character



9.2 Additional Growth Area Option - Bullocks Flat

Bullocks Flat is the start of the Ski Tube and extensive car parking is present but is well hidden by forest.

No change of use is anticipated in the short term. However the location of Bullocks Flat, near the Thredbo River and Ski Tube station, and relatively close to Jindabyne, suggests a speculative possibility for a tourism cluster at Bullocks Flat at a future time.

Existing conditions

Bullocks Flat is dominated by open car parking which for most of the year is empty. The Ski Tube station and rail storage and maintenance sheds are located here.

Although fragmented, native vegetation around the site is high value Tier 1 vegetation and should be protected where possible.

Future development

A concept has been developed for a tourist accommodation development on the north-west car park, closer to the Thredbo River and to a possible outdoor activity or events venue.

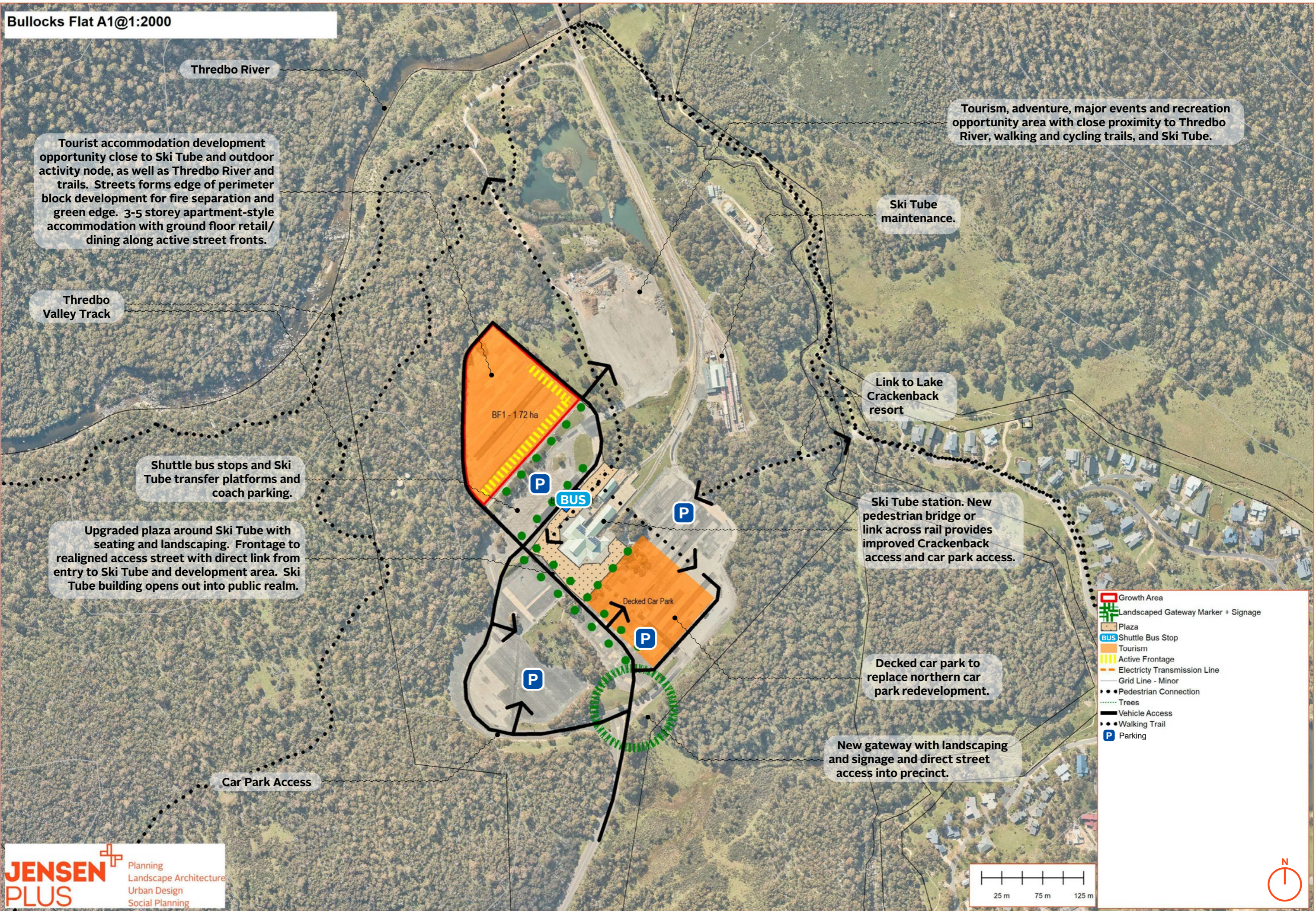
Reconfiguration of internal roads to form local streets and walking routes could also be enabled by the development.

Parking capacity may be maintained through the development of a decked or multi-level car park closer to the entrance to the precinct.



- ACH High Potential
- ACH Moderate Potential
- Historic Heritage High Risk
- Tier 1 Vegetation
- Tier 2 Vegetation
- Tier 3 Vegetation
- Tier 4 Vegetation
- Arterial Road
- Water Course

Bullocks Flat A1@1:2000



Tourist accommodation development opportunity close to Ski Tube and outdoor activity node, as well as Thredbo River and trails. Streets forms edge of perimeter block development for fire separation and green edge. 3-5 storey apartment-style accommodation with ground floor retail/dining along active street fronts.

Tourism, adventure, major events and recreation opportunity area with close proximity to Thredbo River, walking and cycling trails, and Ski Tube.

Ski Tube maintenance.

Thredbo Valley Track

Link to Lake Crackenback resort

Shuttle bus stops and Ski Tube transfer platforms and coach parking.

Ski Tube station. New pedestrian bridge or link across rail provides improved Crackenback access and car park access.

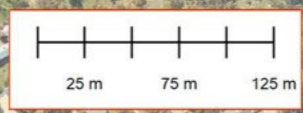
Upgraded plaza around Ski Tube with seating and landscaping. Frontage to realigned access street with direct link from entry to Ski Tube and development area. Ski Tube building opens out into public realm.

Decked car park to replace northern car park redevelopment.

New gateway with landscaping and signage and direct street access into precinct.

Car Park Access

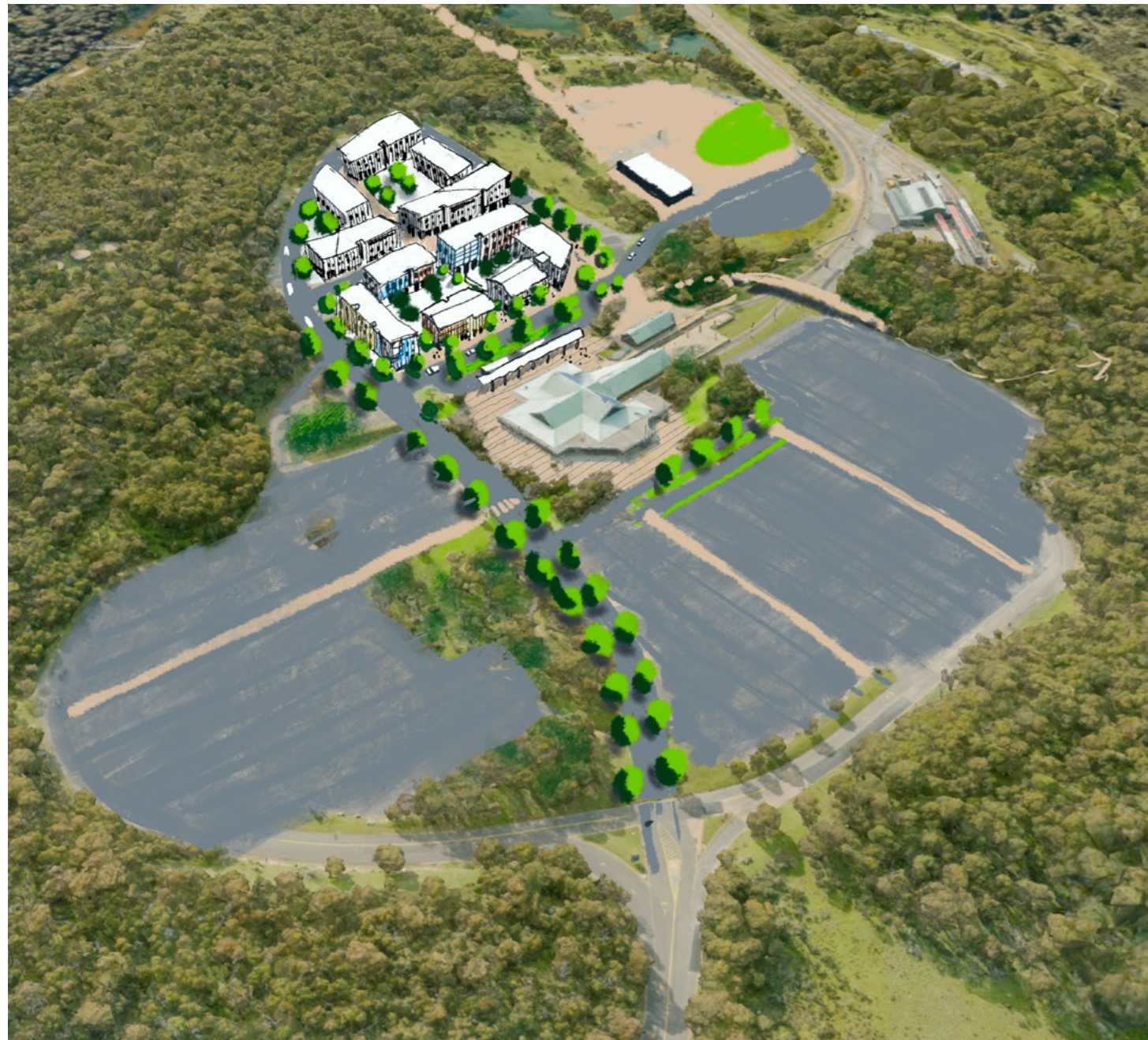
- Growth Area
- Landscaped Gateway Marker + Signage
- Plaza
- Shuttle Bus Stop
- Tourism
- Active Frontage
- Electricity Transmission Line
- Grid Line - Minor
- Pedestrian Connection
- Trees
- Vehicle Access
- Walking Trail
- Parking



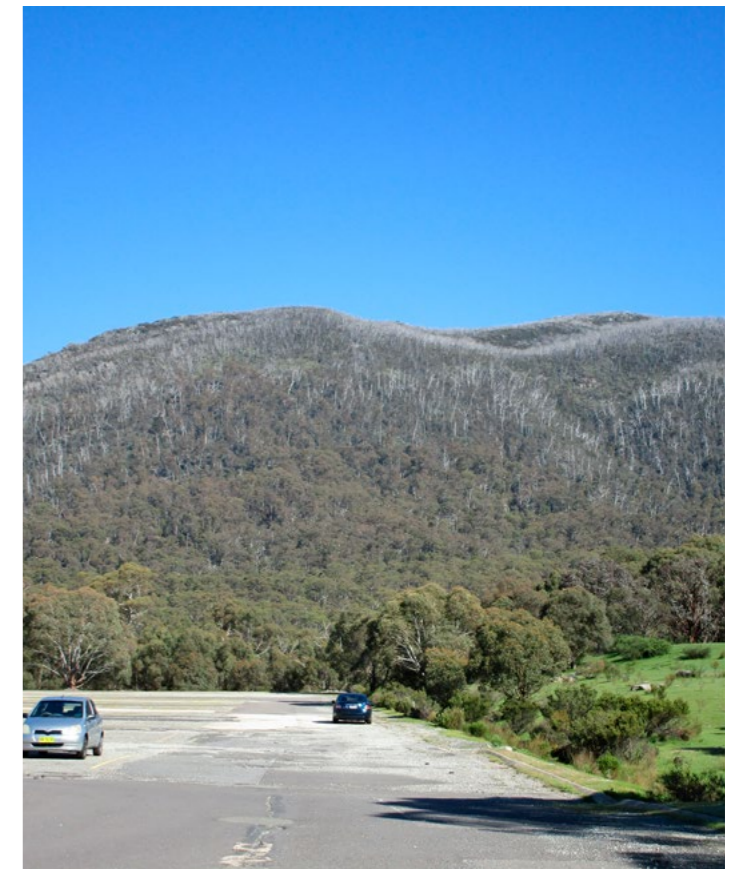


(cont.)

Bullocks Flat



Bullocks Flat sketch





9.3 Additional Growth Area Option - Copper Tom

Land at Copper Tom offers potential for a distinctive tourist accommodation experience

Copper Tom is a 20ha promontory of land at Lake Jindabyne, offering proximity to town while at the same time providing seclusion and fiord-like enclosure.

Introduction

Copper Tom is an interesting lakeside location offering both seclusion, and also close proximity to Jindabyne. It offers potential for a distinctive tourist accommodation experience from other locations within the SAP.

Existing conditions

Copper Tom is a 20-hectare section of land under the ownership of Snowy Hydro, 1km south-east of Jindabyne town centre and close to Kosciuszko Road and the dam for Lake Jindabyne. The land forms a promontory into the Lake providing water views towards Jindabyne, and to steeply vegetated slopes on the lake's edges to the east.

The land is gently undulating for the most part, forming a broad ridge in the centre and falling to the lake edges. The edges of the precinct adjacent the water line are steep (and eroded) in places, making them difficult for development and access to the water's edge.

The landform of Copper Tom allows for a sheltered and relatively private piece

of land that offers a unique and more narrow view of the water than other lakeside locations.

The northern part of the precinct is wooded whilst the southern portion is generally cleared and forms an open grassland setting.

Road access to the precinct is from Kosciuszko Road, at an existing entry, currently utilised for maintenance and Snowy Hydro access only. Safe access for future development requires further investigation.

Formed walking and mountain bike trails connect to Jindabyne and the dam wall north and south and through Copper Tom.

The slope of the land and the Kosciuszko Road levels make additional (road) access difficult, exacerbated by the watercourse that runs to the lake on the north-western side of the precinct's edge.

The precinct is visible from Kosciuszko Road upon entry to Jindabyne, immediately after crossing of the dam wall, as well as from residential areas of the town, making visual amenity a key consideration for any potential development.

Area _ 20.11ha

(Areas approximate and may be inclusive of non-developable land for roads, infrastructure, open space, drainage etc.)



Copper Tom, showing woodland near lake and cleared / grassland area behind



Copper Tom in close proximity to Jindabyne town centre

(cont.)

Copper Tom

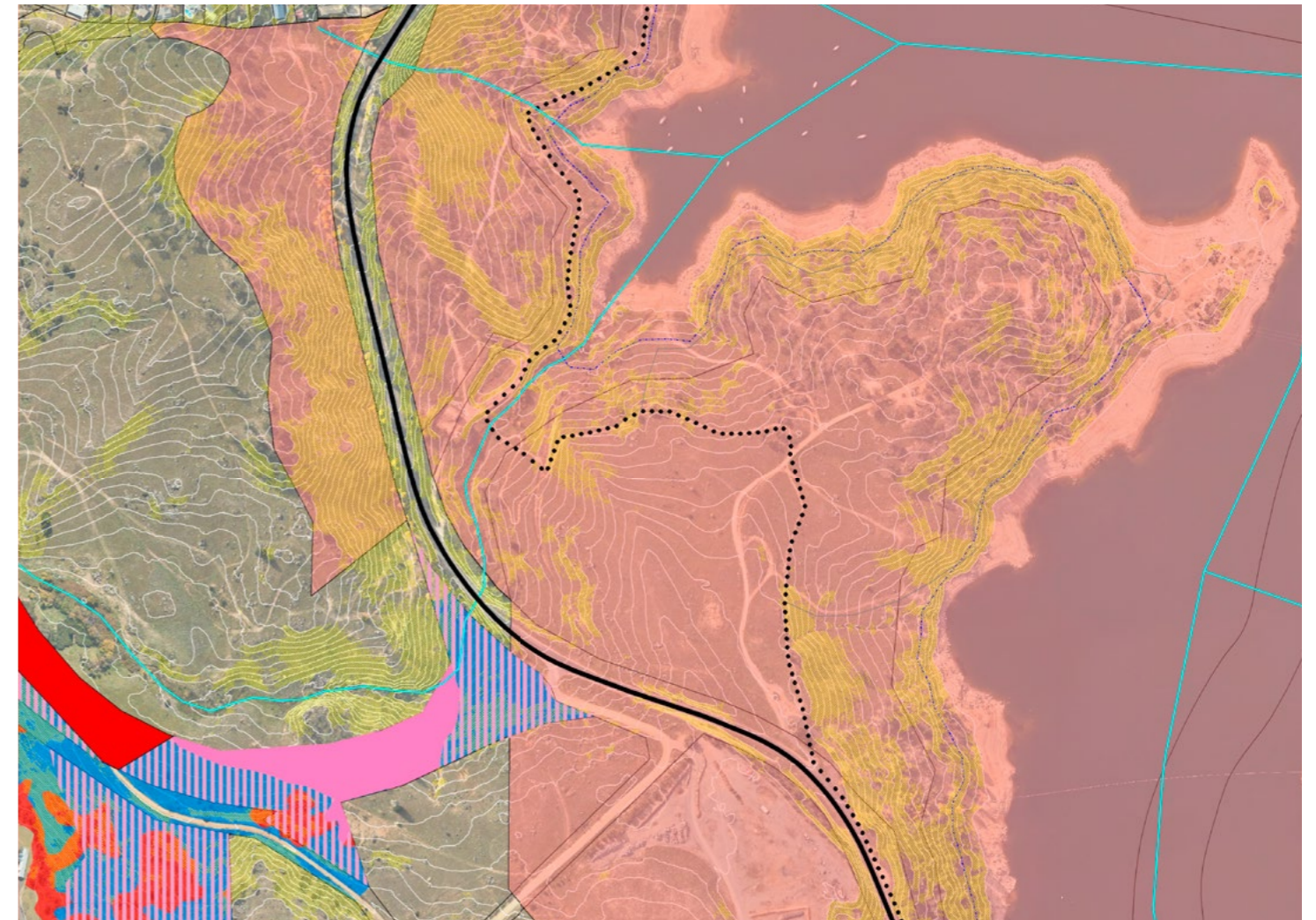
The land is included in the Scenic Protection overlay of the LEP.

Other constraints exist and have been previously studied for Snowy Hydro in their *Jindabyne Urban Lands Capability Study (2012)*. Constraints with potential to effect development and requiring further investigations include aboriginal heritage sites, proximity of sewer and water pump stations nearby, biodiversity values, extent of asbestos contamination (some areas are fenced off; broader contamination was considered unlikely in the 2012 study). Power lines stretch across the lake from Copper Tom to East Jindabyne.

Water treatment upgrades in the vicinity of Copper Tom have the potential to reduce land availability, but it is understood that a new site to the west of Kosciuszko Road is also under consideration for a water treatment plant.

While the land is well visited by locals and visitors, the land itself is not actively managed. A number of informal walking and mountain bike trails are located throughout the precinct, including around the water's edge (amongst and through the tree vegetation), as well as along the ridge.

Copper Tom site analysis, highlighting steep slopes around the perimeter of the land, shared paths passing through the area, and the LEP Scenic Protection overlay



- ACH High Potential
- ACH Moderate Potential
- Historic Heritage High Risk
- Scenic Protection
- Slope greater than 1 in 4
- Tier 1 Vegetation
- Tier 2 Vegetation
- Tier 4 Vegetation
- Unknown Area Type
- Arterial Road
- Lake Jindabyne Full Levels
- Shared Path
- Water Course

Structure Plan

New round the lake trail in restored landscape buffer along lake edge.

Focus for potential eco-tourism development, away from Kosciuszko Road, potentially within woodland area (noting power line constraints in this area).

Explore option for new road access integrated with Southern Connector Road roundabout.

Existing mountain bike trails.

Significant green buffer to Kosciuszko Road, maintains visual amenity.

Existing access upgraded as primary or secondary access.

- Green Infrastructure
- Open Space
- Precinct
- Tourism
- Road
- Shared Path
- Southern Connector Road
- Vehicle Access





(cont.)

Copper Tom

LAND USES

SUB PRECINCT	PROPOSED LAND USES*
TBC	<ul style="list-style-type: none"> _ Recreation areas _ Restaurants and cafes _ Bed and breakfast accommodation _ Camping grounds _ Eco-tourist facilities _ Car parks _ Roads _ Signage _ Environmental protection works

* This list comprises land uses expected, envisaged and/or desired to support the objectives of the SAP. Some additional land use terms may be included in the Master Plan to promote increased flexibility even if the additional land uses are unlikely to occur

Future development

- _ Copper Tom represents an opportunity for a low-scale and sensitively designed tourist or eco-tourist accommodation precinct that responds to the sensitive cultural, environmental and visual setting of this location.
- _ Forms of tourist accommodation that 'touch the ground lightly', such as woodland cabins or villas, glamping, or potentially elevated "treetop" accommodation have been mooted, with the potential to take advantage of views of the lake and surrounding vegetated slopes, the connection to the water's edge and proximity to Jindabyne, offering a point of difference in accommodation for the locations surrounding Jindabyne.
- _ The constraints associated with this site, means that development will need to be carefully positioned and designed to minimise environmental impacts and clearance of vegetation, making use of existing disturbed areas, and to accommodate bushfire requirements. There may also be opportunities for offsetting vegetation loss through the revegetation (or conservation) of the cleared parts of the precinct further south-west.

- _ A smaller yielding tourist precinct is not however necessarily a bad one. Exclusivity with proximity may be a major selling point for Copper Tom.
- _ Opportunities for water access and connection exist at the head of the promontory, where land form makes access and pontoons / berths possible.
- _ Improved connections of the precinct into the Lake Jindabyne for walking and cycling activities is important and will further boost the tourism attractiveness and experience of this location.
- _ There is also an opportunity (and necessity) to integrate indigenous cultural heritage and interpretation into the site, being identified as being of high aboriginal significance.
- _ Town water intake(s) and treatment plants are located at/near Copper Tom. A new water treatment plant may be located west of Kosciuszko Road but intake and pipeline requirements are unknown.

Alternative land use options

Other options that have been suggested by the project team and may also be viable options in the medium to longer term include:

- _ "4.5 star, 60-80 room Boutique Lakefront Spa Hotel". Seen by Stafford Strategy as a long term possibility, this Hotel could be the design or a different model as the "treetop" accommodation described earlier.
- _ Camping and Caravan Park. Copper Tom could present an opportunity for a new or relocated caravan park, to replace or supplement the town caravan park which is proposed to be replaced by the Jindabyne Waterfront Development precinct.
- _ Open Space and Recreation. Formalise and upgrade the land for recreation use, including better trails, biodiversity areas and passive recreation facilities such as seating and picnic areas, nature play areas and car parking.
- _ Offsets - potential exists for part of the land at Copper Tom to function as biodiversity offsets, to balance against clearing of vegetation in other parts of the Precinct. This use could be done in conjunction with increased use as open space and passive recreation space for Jindabyne.
- _ Use of the land for residential development is not proposed, given the special location and significance of the site, and the availability of other residential options around Jindabyne.



(cont.)

Copper Tom

Rationale for change

- _ The site provides unique and valuable waterfront land close to Jindabyne, and is different in character to other tourist sites, adding to diversity of development opportunity.
- _ The land is under Snowy Hydro ownership, is understood to be surplus to needs, and has been previously disturbed, and is underutilised (even as a passive recreation and environmental asset).



Example of glamping style accommodation huts near a lakeside
Source: Olio Bello, 2020



Example of treetop style cabin overlook a fiord...almost like Copper Tom!
Source: Visit Norway, 2020

Recommendations for the Master Plan and Delivery Plan

- _ Facilitate the development of tourism development (or other preferred uses) at Copper Tom through appropriate sub-precinct and zoning.
- _ Limit development to small scale and low impact forms of accommodation, sensitively designed to minimise visual and environmental impacts.
- _ Guide the size, separation and scale of accommodation units across the site so as to retain the vegetated character, minimise vegetation removal and ensure suitable servicing in a sustainable manner.
- _ Support the revegetation or careful environmental management of the remainder of the parcel to support offsetting, and improved appearance from Kosciuszko Road's approach into Jindabyne.
- _ Further develop and/or realign walking and cycling trails and paths to provide public access and excellent connectivity to Jindabyne and surrounding locations.



(cont.)

Copper Tom



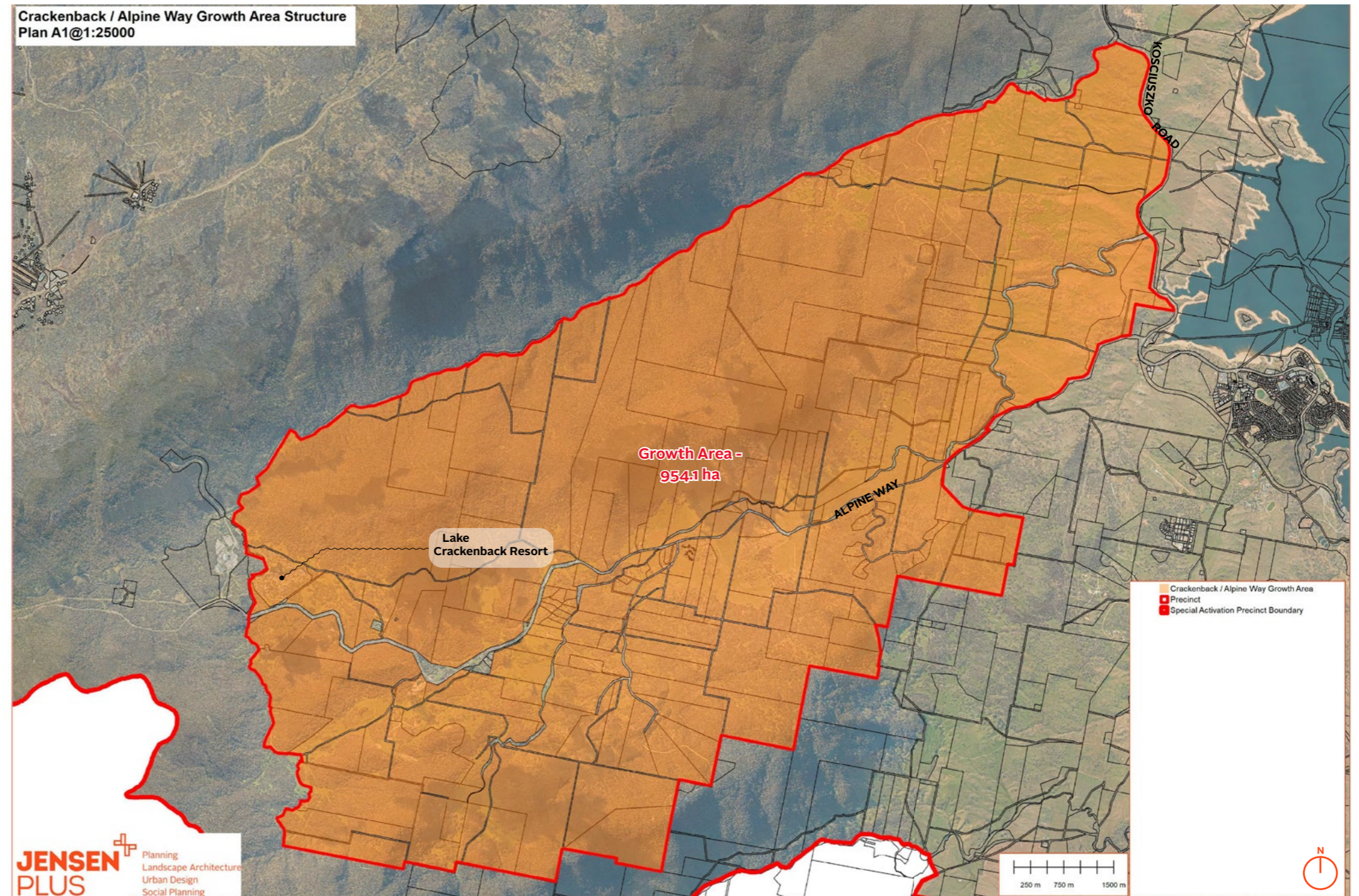
Illustrations of potential Copper Tom "treetop" cabins, and 3D model highlighting small development footprint on the Copper Tom peninsula and Jindabyne town centre behind.



9.4 Additional Growth Area Option - Crackenback + Alpine Way

Opportunity for individual tourist developments in a rural setting along Alpine Way

This broader area accommodates several tourist destinations and landmarks including Gadens Trout Hatchery, Lake Crackenback Resort, and Wild Brumby Distillery. Further development of these and similar new tourist developments is encouraged where the landscape setting and character of the areas is respected.



Thank You

