



SHIRE & OVERVIEW

Figure 1: View from south bank of Edward (Kolety) River at Deniliquin looking toward Cobb Highway bridge (October 2023).

Please note that this is a Briefing Note with some suggestions about planning outcomes. It is yet to be tested through community and council engagement and is subject to change.

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IMPORTANT NOTE:

This Growth Strategy has been prepared with the aim of encouraging discussion around the requirements to support long-term sustainable growth for key settlements and the Shire as a whole.

This Land Use Strategy provides a planning framework to address higher or aspirational growth targets set out in the Strategy and identifies the future use of land to achieve this vision. However, it can also be adapted for lower growth rates.

This is a DRAFT Strategy until adopted so it is subject to change. To achieve this growth will require funding for infrastructure and services that is yet to be confirmed.

1. Introduction

1.1. Purpose of this Report

iPLAN PROJECTS has been engaged by AEC Group Pty Ltd to assist with preparing the Edward River Council (ERC) *Growth Strategy 2050* (Growth Strategy or Strategy).

In effect it is a high-level strategic Land Use Strategy ('LUS') or 'Settlement Strategy' for the growth of Deniliquin and (to a more limited extent) the key villages. It does not specifically cover the rural/agricultural areas but references these in terms of total dwellings as catchments for key settlements.

This Strategy is specifically responding to the findings of SEFTONS (Oct 2021) 'Our Region, Your Say' – Community Consultation Report. This was a Community-led vision to grow the population at a far greater rate than predicted (by the NSW Government) – See Figure opposite.

As such, the purpose of this Strategy – particularly this Planning Insight – is to identify some of the planning 'tools' and changes required to accommodate that growth, particularly in the urban areas. It also highlights key infrastructure and service gaps and opportunities that can encourage future investment and support grant funding applications for further investigation.

This report is **Briefing Note BN3 – Planning Insight** provided as **DRAFT** advice prior to community and stakeholder engagement. Some of the suggestions in this report may change as the Strategy evolves.

This Chapter focusses primarily on Deniliquin which is/will be the primary growth centre for ERC. It also includes some broader information on the Shire where relevant to the role of Deniliquin.

Our role is to provide planning input the areas for growth of key land uses and suggested changes to key planning controls that can facilitate that growth. It seeks to address the following key land uses:

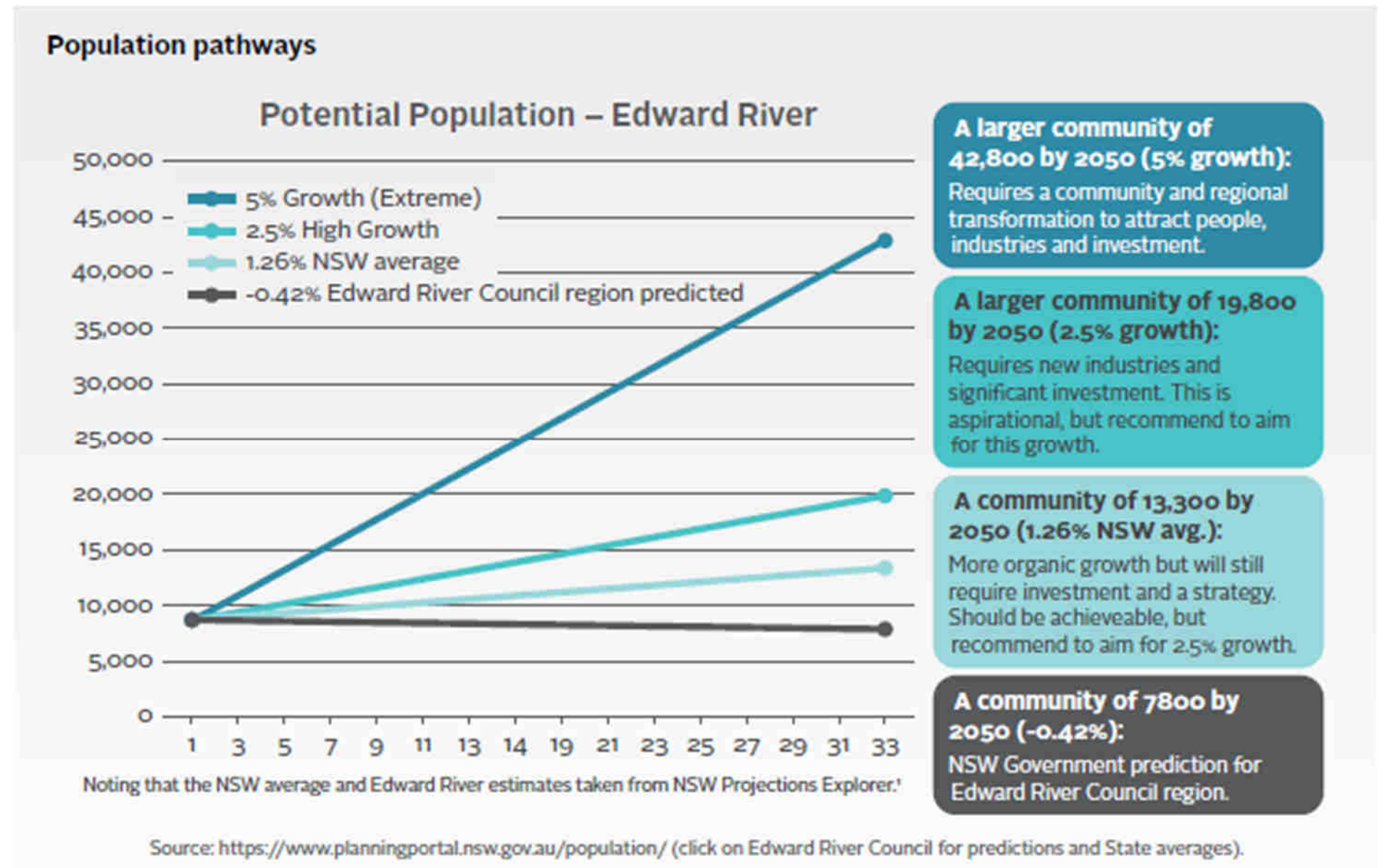
- Industrial land use (Deniliquin) (not including any rural industries outside Deniliquin);
- Commercial & community land uses (Deniliquin & the villages with Zone RU5 Village);
- Urban residential land uses (Deniliquin & the villages with Zone RU5 Village);
- Large lot residential land uses (Deniliquin & the villages with Zone R5 Large Lot Residential)
- Open space & recreational land uses (but only at a high-level with a particular focus on the villages where these are the core community infrastructure).

1.2. Purpose of the Growth Strategy

The goal of the *Growth Strategy 2050* (of which this report is a part) is to provide a pathway for Edward River to not only reverse the trend of population decline, but to leverage its opportunities for sustainable population and economic growth for the next 20-30 years. This includes:

- The creation of initiatives to drive growth;
- Identification and allocation of land to support future development (i.e., residential, rural, commercial, industrial and community uses);
- Identification of opportunities to become climate resilient;
- Identification of social and physical infrastructure and place making requirements;
- Identification of skills gaps and training requirements.
- Recommendations for future detailed strategic work.

Figure 2: POTENTIAL Population Growth pathways (SEFTON (Oct 2021) 'Our Region, Your Say' – Community Consultation Report – Summary.



1.3. References

As the Figure opposite shows, this **Briefing Note BN3 – Planning Insight** builds on the previous AEC Briefing Notes from October 2023 including:

- Briefing Note 1: Strategic Alignment;
- Briefing Note 2: Profile, Projections & Opportunity Assessment;
- Associated Excel Dashboard Data on Projections; Settlement Analysis; Socio-Economic Assessment; & Tourism Assessment.

These Briefing Notes provide a more detailed review of a range of background studies and reports relevant to this Growth Strategy. It also seeks to integrate with the DRAFT outcomes of the *Growth Strategy*.

This Report also seeks to build on (& act as an addendum to) the following key land use strategies relevant to this Chapter including:

- ERC (Feb 2020) *Local Strategic Planning Statement (LSPS)*;
- HillPDA (April 2021) *Edward River – Industrial Land – Background Report* (Industrial Strategy);
- GHD (Sept 2019) *Deniliquin Large Lot Residential Strategy* (LLR Strategy).

It also builds on other supporting studies including, but not limited to:

- a) ERC *Agribusiness Masterplan 2019-2024 – Prospering in the new normal* (and associated *Situation Analysis* report)
- b) LM.LA (May 2018) *Deniliquin Public Space Strategy*;
- c) MAK Planning & Design (October 2018) *Edward River Council Open Space Strategy* (Open Space Strategy);
- d) GroupGSA (Dec 2018) *Deniliquin Masterplan*;
- e) MAK Planning & Design (August 2019) *Memorial Park Master Plan*.

It is noted that there are currently no adopted strategies for urban residential or commercial growth in any of the settlements or large lot residential growth outside of Deniliquin. Whilst this is not a complete ‘Housing Strategy’ in accordance with the NSW guidelines – there is sufficient information for Council, the community, and the NSW Government to manage growth at a range of levels in each of the settlements across a variety of land uses to align with the **Growth Strategy**.

Figure 3: Position of this BN3 – Planning Insight Briefing Note in the Growth Strategy.



2. Summary Preliminary Land Use Findings

2.1. Key Opportunities

This is a summary/reproduction (with some minor additional opportunities/comments) of AEC *Briefing Note No.2 – Profile, Projections & Opportunity Assessment* (BN2). Please see BN2 for more details.

The potential growth opportunities for Edward River to target in support of the interim and aspirational population targets are presented below, with these being informed through the strengths and opportunities outlined in earlier sections.

2.1.1. Transport Infrastructure

There are opportunities to leverage existing and potential future expanded transport infrastructure including:

- a) Pursuing opportunities for a private or local inter-modal rail facility for freight connection (subject to a business case on potential freight opportunities for agriculture, value-added products, manufacturing, and logistics).
- b) Continuing to encourage the Conargo Rd/Cobb Highway as an alternative route to the Newell Highway for significant freight, particularly to/from the Riverina to Bendigo and onto Melbourne with associated logistics and freight businesses.
- c) Leveraging recent upgrades with the new Cobb Highway bridge at Echuca/Moama that may reduce travel times for freight, workers, and access to services making Deniliquin more accessible.
- d) Continuing to protect and enhance the Deniliquin Airport for a range of complementary uses including, but not limited to: an emergency services precinct & resilience recovery centre for floods/bushfires etc.; continued agricultural servicing; potential to reintroduce passenger services (on a trial basis); flight training schools, larger aircraft for future freight potential, a potential 'Skypark' residential offer for aircraft enthusiast and professional etc,

2.1.2. Employment Lands & Growth Potential

Deniliquin has a significant advantage over many similarly sized and larger centres in that it has a large area of:

- a) Existing zoned industrial (employment) land with significant vacant or under-utilised land for future expansion;
- b) On relatively unconstrained and flat land, largely outside the Flood Planning Area, with limited land use conflicts;
- c) Immediately adjacent to highway and rail access (with existing rail sidings) within 4 hours of Melbourne;
- d) With reasonable access to utilities (particularly as they are expanded);
- e) With a highly-productive agricultural catchment for value-added manufacturing, freight, and logistics etc.;
- f) With several existing large-scale businesses (e.g., Sun Rice & GrainCorp) as well as strong presence of local small to medium scale businesses with significant diversity in manufacturing, construction & other industries;

- g) With several proposed industrial subdivisions and several innovative local businesses;
- h) With a wide catchment for potential workforce;
- i) With potential for future expansion to the south/west with limited land use conflicts or constraints (except the LGA boundary).

The Zone IN1 General Industrial area in south Deniliquin is suitably sized for significant growth in the short to medium term subject to servicing. The areas extending to the LGA boundary to the south and west of the existing industrial area need to be protected against residential encroachment as this is also the location of the new STP.

The business case for a private rail inter-modal needs to be developed further – but regardless – the rail siding should be protected to enable this to occur at any stage in the future.

Some key industrial sites need to be master-planned, DA approved, and ideally serviced to enable Council and the community to actively market these lands to potential investors/industries.

Some additional areas could be facilitated for smaller industrial lots to meet good 'grass roots' local demand, possibly along Barham Road and around the old STP.

2.1.3. Affordable & Diverse Housing

Deniliquin can support some significant growth of urban residential within its existing Zone R1 General Residential lands (particularly to the north-west and south-east) within the levee but this land is limited in area/supply so it needs to be used to its maximum efficiency. The key issues is structure planning these areas and contributions planning for centralised sewer, water & electricity upgrades.

The GHD adopted study on Zone R5 Large Lot Residential lands is still valid. This only looked at LLR growth around Deniliquin but not the villages. There may need to be some revisions/updates with LLR near the waste depot and in North Deniliquin to promote growth in that area due to LALC held land constraining supply. Pretty Pine and Mulumbah Rd may have some limited potential to grow close to Deniliquin. Working with Murray River Council to locate LLR on the Cobb Highway south of Deniliquin may be a good strategic approach but does not contribute to Council's rates.

The expansion of affordable and diverse housing can provide opportunities for growth, particularly in:

- a) Short term worker accommodation that will support an expanded temporary workforce to deliver on major projects, with a long-term goal of transitioning this accommodation into affordable housing, emergency housing, or tourist accommodation for larger events.
- b) Special purpose vehicle to support the delivery of affordable housing for service workers who may not be able to afford (or cannot find suitable rental or housing to purchase) to live locally (i.e., means tested rent subsidies supported through the Australian Government Rental Accord).

- c) Cater for an ageing population and a relatively higher demand for accessible & special-purpose housing (with local disability providers) and associated connectivity and accessibility throughout Deniliquin town centre. Council is already in this space with a new seniors' living project in Deniliquin under construction. There may need to be a review of ways to facilitate other disability housing providers in delivering some of their approved subdivisions.

2.1.4. Agriculture & Water Infrastructure

This Strategy recognises that agriculture is and is likely to continue to be one of the key economic drivers of the Shire. Whilst there will be increasing challenges around water security, climate change, instability in global security and markets, emerging technologies, and environmental constraints etc., and subsequent flow-on effects to growth rates and costs of development – ERC has significant agricultural infrastructure and production potential that should be leveraged.

Limited opportunities exist for profound agricultural expansion due to the currently strong agricultural sector in Edward River. However, growth can occur by continuing to implement the recommendations of the ERC *Agribusiness Masterplan 2019-2024* (and associated *Situation Analysis* report) and looking to update this as key tasks are completed. The more responsive the agricultural producers are to challenges and opportunities, the more chance they will not only survive these challenges but thrive.

2.1.5. Manufacturing

The expansion of the following high-value, niche manufacturing industries showcases an opportunity for Edward River to expand and capitalise upon its existing industrial base to support future growth. These niche manufacturing opportunities include:

- a) Expansion of existing food and beverage processing manufacturing.
- b) Value adding of agricultural production in accordance with the *Agribusiness Masterplan*.
- c) Waste processing.

2.1.6. Construction

The existing industrial base in Edward River can support the expansion of growth opportunities in select construction industries, notably supporting the expansion of construction services, potentially a residential pre-fabrication construction business to capitalise on the growth of pre-fabricate housing anticipated in the future.

2.1.7. Health Care

A projected ageing population under all scenarios, with a particularly higher burden of care under the interim and aspirational growth scenarios, presents an opportunity for continued growth in the health care sector to minimise population decline through loss of older citizens to higher service centres, in particular:

- a) Aged care facilities to support the ageing population for the broader region;

- b) Develop additional health and allied health services to support the growing local population;
- c) Continued opportunities for disability care and meaningful lifestyle and employment opportunities.

2.1.8. Electricity, Gas, Water & Waste Services

Edward River's natural endowment can support the expansion of electricity, gas, water and waste services, capitalising upon Edward Rivers existing strengths in the industries with the following projects:

- a) Prepare Development Servicing Plans (DSPs) for key growth areas (particularly in Deniliquin) to clearly identify the required infrastructure to support growth areas.
- b) Leverage funding and set up developer contributions linked to the DSPs to construct sewer, water and electricity infrastructure that can cater for sustainable and cost-effective growth and development. To enable any significant growth the priority must be for a new Sewage Treatment Plant (STP) and engagement with Essential Energy to improve low voltage electricity capacity in Deniliquin.
- c) Facilitate large-scale renewable energy projects for solar and wind energy generation in the north of the Shire and along key existing and proposed high-voltage electricity infrastructure to lower the carbon footprint and produce sustainable energy, microgrids where it does not conflict with agricultural productivity. Work with electricity providers to ensure the grid can support the change in demand/production.
- d) Look to avoid, minimise, and manage solid waste with consolidated landfills and waste transfer stations that have sufficient capacity to allow for future growth.

2.1.9. Education & Training

Opportunities for expanded education and training services in Edward River can support the broader growth initiative, particularly through:

- a) Attraction of a Country University Campus in Deniliquin, to aid the upskilling and retention of residents in the Edward River (see CUC Western Riverina in Griffith for an example).
- b) A goal to train, retain and attract more white-collar workers to expand the professional services in Edward River, with professional, scientific, and technical services being largest employment importer to the region.
- c) A goal to train, retain and attract more local trades and apprentices to support agriculture, industry and construction and upskill them to adapt to changing employment and technologies for improved productivity and work safety.
- d) The expansion of digital connectivity and telecommunications (increase broadband and mobile connectivity in rural and urban areas) to support access to education, online business development, work-from-home arrangements, as well as technological advancements in agriculture, industry, and service provision across Edward River.

- e) Focus on creating accessible pathways for people living with disabilities/ disadvantaged to find meaningful employment opportunities.

2.1.10. Commercial & Civic Function, Urban Design & Lifestyle

- a) Empower the commercial and retail stakeholders in each settlement to improve business productivity and feasibility, enable improved use of technology & accessibility, and reactivate vacant and under-utilised spaces in key centres.
- b) Continue to enhance the urban realm in accordance with several adopted open space, recreation, and public domain studies/ master plans to increase liveability and promote health lifestyle choices.
- c) Work with key land-holders fronting the Edward River and tributaries in Deniliquin to improve engagement and activation of the river frontage with a staged relocation of less suitable users.

2.1.11. Tourism & Lifestyle

Edward River can support population growth through further diversification into tourism-related industries, as well as general improvements to lifestyle, with the following projects targeting this possibility:

- a) Health and wellness tourism, such as health retreats.
- b) Activity-based tourism, through riverfront development, water-based activities in the Edward River, adventure sport, and tracks/trails through national parks and connectivity between townships.
- c) Eco-tourism through development of eco-sustainable hotels, glamping, nature retreats that leverage ERC's significant natural assets and capture value from rehabilitation of enhancement of the natural environment.
- d) Agri-tourism (as a means of diversifying rural income) through farm stays, wineries and breweries, food and production processing plant tours and regional produce markets.
- e) Events-tourism, including maintaining events such as the Deni Muster and Play on the Plains and possibly introducing a third larger festival or several smaller festivals to bring people to the region and growing more major and regional events.
- f) Increase the food and retail offer available, especially on weekends, possibly by offering packages and advance bookings that enable providers to resource/staff economically.
- g) Increase the availability and frequency of recreational activities through new venues and events.

2.1.12. Recreation Infrastructure

Council needs to continue to invest its limited funds as wisely as possible for sustainable growth. One area that may require further review is in open space and recreation planning. Recreation infrastructure is critical to the identify and community, particularly for smaller villages. However, Council may need to set clear community expectations about reasonable levels of servicing and aim to consolidate facilities to try to achieve regional level facilities in the medium to long term. One possible

tool may be the allocation of annual budgets for each village (subject to funding) that allows each community to understand the cost implications of different infrastructure projects and prioritise it based on their needs.

2.2. Assumptions

The following assumptions inform this Report:

1. Population growth to 19,800 from the Sefton Report (~4.5%/year) is aspirational as is even half that at 13,000 (~1.8%/year) growth and subject to drivers to enable this growth. There is likely to be a stronger evidence base in the short-to-medium term for growth closer to the Conservative Growth Rate of ~0.4%/year but this does not preclude a higher growth rate and planning should consider the implications and requirements for higher growth.
2. In the short to medium term (for any population growth up to approximately 1%/year) it is assumed that most of the associated development will occur in Deniliquin, rather than the other villages for reasons set out below.
3. All other villages do not have reticulated sewage or water systems to facilitate significant growth at this time and none is scheduled or funded at this time. This does not prevent the villages from picking up some large lot residential growth and some minor retail and employment services in the existing zones (where permissible).
4. It is expected more than 90-95% of the growth will occur in and around Deniliquin in the low to medium term population growth scenario.
5. The villages are all capable of some reasonable growth without any significant planning changes but there are currently not a lot of growth drivers in those areas. I will provide some indicative growth areas for each of the villages subject to 60% take up of existing land (work-in-progress).
6. The rural areas on average are expected to continue to have some population loss as farms are consolidated and there is increased mechanisation. However, there may continue to be some growth in population/dwellings scattered in the irrigated area – particularly around Blighty & Mayrung. This would ideally continue to support those local schools and facilities – though growth is not guaranteed.
7. Environmental constraints & opportunities need to be carefully managed as they will add increasing cost to development if not strategically planned- especially climate change, flooding, and bushfire risk. The focus for all growth areas should be in areas with minimal hazards or sensitive environmental areas. Less constrained land should ideally be used more intensively/efficiently.

3. Population & Settlement Overview

3.1. Edward River LGA Population Projection

The AEC Briefing Notes have reviewed the existing and projected future population of Edward River as shown on the Figures opposite.

Starting from a base population in 2021 of 844 people, the Growth Strategy offers four (4) scenarios for future growth including:

- a) **ORANGE – BASE** negative (NSW Government) scenario at approx. negative 0.08%/annum = 2051 pop. of 8,249;
- b) **BLUE – CONSERVATIVE** scenario at approx. 0.4%/annum = 2051 pop. of 9,500;
- c) **GREEN – INTERIM** scenario at approx. 1.6%/annum = 2051 pop. of 13,300;
- d) **GREY – ASPIRATIONAL** scenario at approx. 3%/annum = 2051 pop. of 19,800 (that aligns with Sefton Report).

Each of these scenarios are then shown in the bar chart compared to a range of comparable or nearby Local Government Areas (LGAs).

It is important to note that the Interim and Aspirational growth rates would require fundamental shifts in the way the Shire operates to attract this level of growth. Whilst the aim of this Growth Strategy is to identify possible opportunities to reach those growth rates, it cannot guarantee those can be met. In the short-term, the evidence base has a greater chance of reaching the Conservative growth rate.

3.2. Settlement Populations & Recent Growth

The Figure (table) opposite shows the 2016-2021 growth of each of the key settlements in ERC. The villages other than Deniliquin are of such small sizes that small changes in population can result in significant percentage changes. The census data for the smaller villages includes the broader rural catchment around the village.

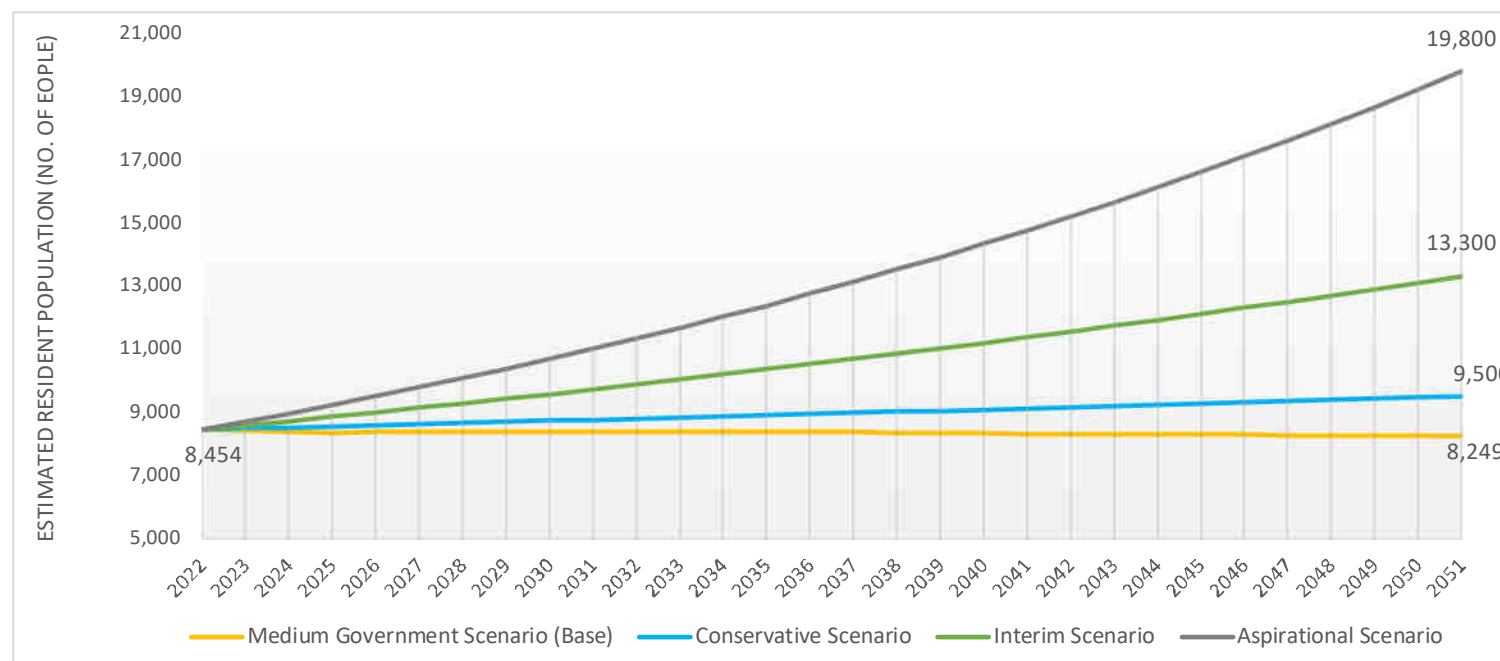
3.3. Settlement Hierarchy

This Growth Strategy assumes that most future growth will occur in Deniliquin as it has significantly higher level services, infrastructure, population, and area zoned for each land use. The village hierarchy is set out in *Chapter 3 – The Villages*.

Conargo and Wanganella are the next most significant ‘settlement’ because they have more consolidated infrastructure. However, when including the census catchments around the settlements, Blighty and Mayrung are larger by population and growing faster.

Mulumbah Estate may also need to be considered for growth as it has a significant number of dwellings and is close to Deniliquin on a sandhill largely above the flood plain.

Figure 4: Estimated ERC Resident Population Growth Scenarios (AEC Briefing Note).



Source: ABS (2023), NSW Government (2022), AEC.

Figure 5: NSW Government Population Growth Projections – Edward River & Nearby LGAs (AEC Briefing Note).

Source: ABS (2023), NSW Government (2022a), Victorian Government (2019), AEC. The projected average annual growth rates for the other LGAs were based on NSW Government

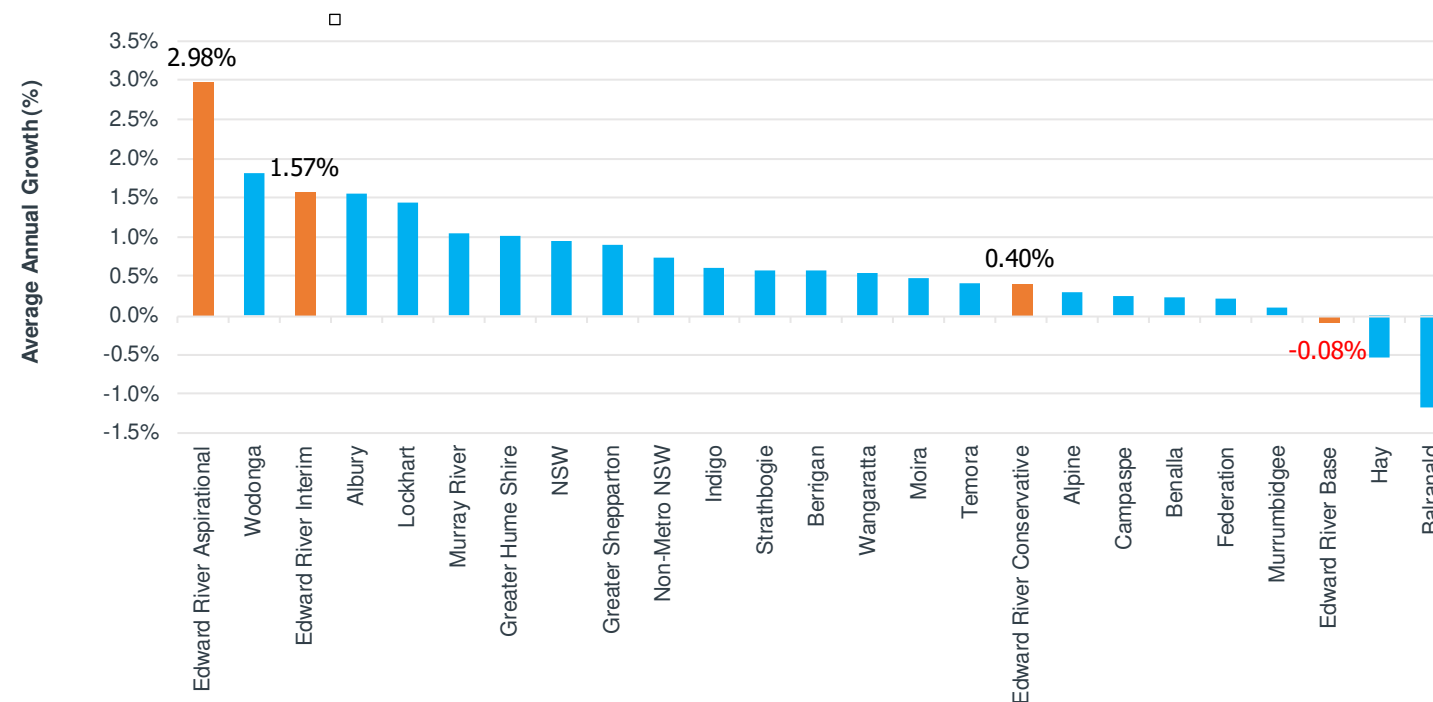


Figure 6: Population growth of key settlements 2016-2021 (Census catchments).

Period	Deniliquin	Blighty	Mayrung	Conargo	Wanganella	Pretty Pine	Boooroban	Others	ERC
2016	7,434	138	148	123	86	63	33	826	8,851
2021	7,038	192	171	117	61	59	36	588	8,262
Growth (%)	-1.1%	6.8%	2.9%	-1.0%	-6.6%	-1.3%	1.8%	-6.6%	-1.4%

4. Transport Infrastructure

4.1. Road

4.1.1. Key Connections

Deniliquin is centrally located at the junction of key highways from western NSW to Bendigo/ Melbourne and Albury to Mildura:

- Cobb Highway (Echuca-Moama to Wilcannia – major north-south inland NSW highway);
- Riverina Highway (Deniliquin to Albury/Wodonga – major east-west NSW highway);
- On the Conargo Rd which is an alternative route connecting the Newell Highway at Jerilderie via Conargo to Bendigo.

These roads are key freight and passenger movement routes and classified roads. They are protected under *State Environmental Planning Policy (Transport & Infrastructure) 2021*.

Deniliquin is the major service centre for all the smaller villages and parishes across ERC and may also service areas in adjacent Shires.

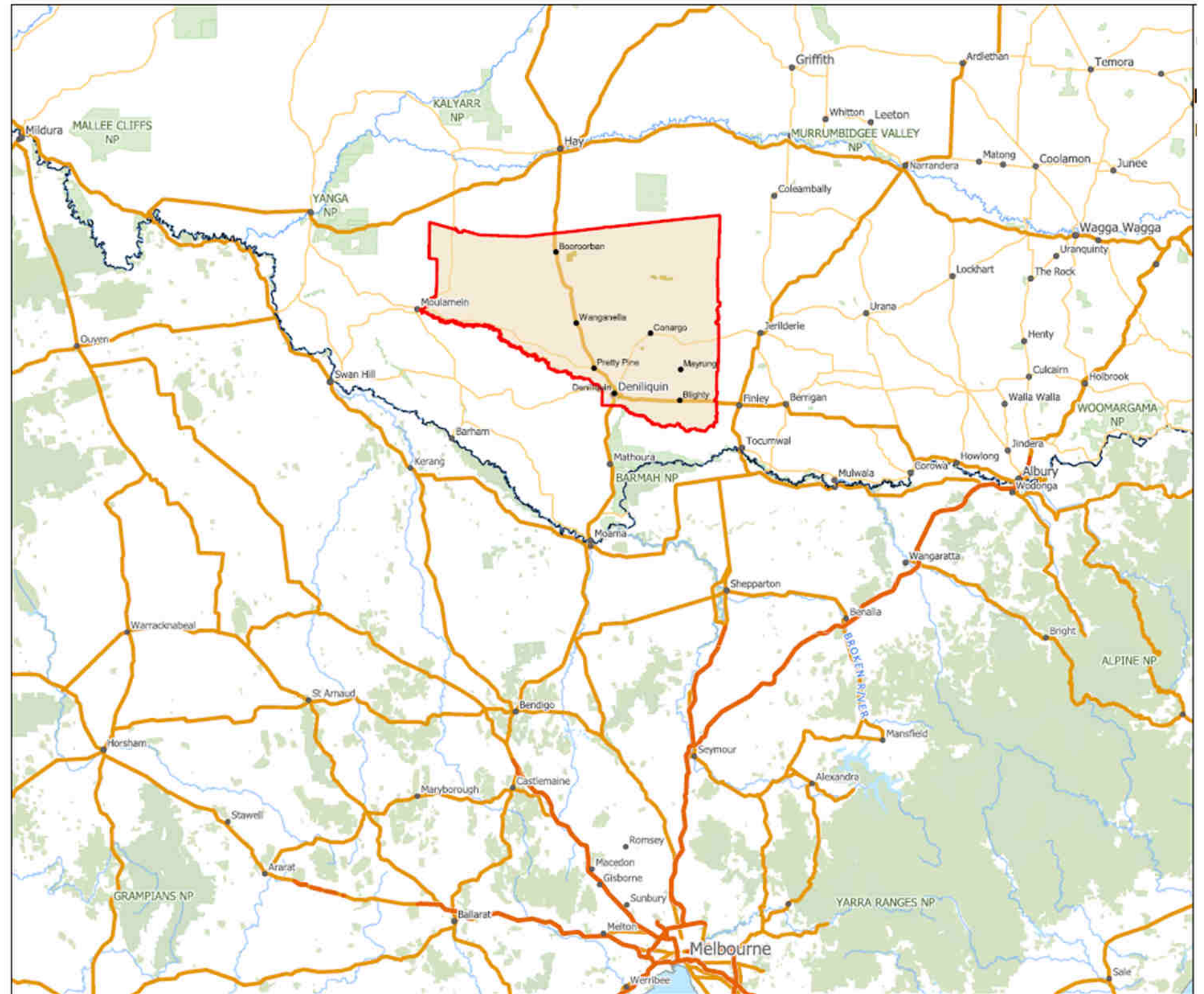
As a result of the transport network and travel distances, ERC/Deniliquin has greater connections with Victoria than it does to NSW with most of the community travelling to Echuca/Moama or Bendigo for higher level services. Deniliquin is only 3 ¼ hours from Melbourne and is closer to Adelaide than Sydney.

4.1.2. Travel Distances

A summary of the proximity to Deniliquin to other major centres and each of the villages (driving) is as follows:

<p>Deniliquin to:</p> <ul style="list-style-type: none"> • Finley NSW (Newell Hwy) ~58km (38 mins) • Moama NSW/ Echuca VIC ~70-75km (48-50 mins) • Shepparton VIC ~135km (1 hour 30 mins) • Bendigo VIC ~165km (2 hours) • Albury NSW ~205km (2 hours 20 mins) • Wagga Wagga NSW ~255km (2 hours 45 mins) • Melbourne VIC ~280-300km (3 hours + 20 mins) • Adelaide SA ~650km (7 hours) • Sydney NSW ~700-720km (7 hours 50 mins) 	<p>Deniliquin to:</p> <ul style="list-style-type: none"> • Mulumbah Rd ~8km (7 mins) • Pretty Pine ~15km (11 mins) • Conargo ~32km (21 mins) • Blighty ~33km (22 mins) • Mayrung ~38km (27 mins) • Wanganella ~45km (28 mins) • Booroorban ~72km (45 mins)
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Figure 7: Map of Shire in relation to key regional centres, major cities & highways.



4.1.3. Capacity & Constraints

The State highways (funded by TfNSW) generally appear in relatively good condition with ~260km of TfNSW roads to road train standard and a current program with several significant upgrades.

Most of the remainder of roads in the Shire are gravel or simple sealed roads with ~1100km – some at B-double standard.

There are some minor constraints where roads in Zone IN1 General Industrial Deniliquin are not approved for B-Double or Road Train use due to local road quality/standards but this can be progressively improved as new development justifies or pays for local road upgrades.

A more detailed review of freight movements on NSW/VIC highways may assist with understanding road capacity constraints.

Flood damage is an ongoing risk to all roads on the flood plain.

Murray Irrigation Limited owns several hundreds of bridges in the Shire over their irrigation channels.

There may be increasing conflicts between safe & efficient vehicle movement and urban design and town presentation outcomes, particularly in Deniliquin. Deniliquin is fortunate that the highway is partly separated from most of its key town centre (CBD) streets – but the gateways to the town centre still need improvement/review.

4.2. Echuca/Moama Bridge

A recent significant road upgrade (outside ERC) is the new Cobb Highway bridge at Echuca-Moama connecting to the Murray Valley Highway that was opened to traffic in April 2022 (see Figure opposite). This may take some time off a journey to/from Deniliquin to Bendigo/Melbourne (see image from TfNSW website below) and potentially makes it more attractive for freight & commuters.

Figure 8: Echuca-Moama duplicated bridge (completed) (TfNSW website - current projects).



TRANSPORT INFRASTRUCTURE (ROADS): Key ongoing goals for ERC & the community regarding key roads may include:

- Leverage the Shire and Deniliquin's key location on key transport routes for logistics and freight growth;
- Protect & enhance existing key classified roads and key freight routes;
- Sign-post & encourage the road connection from the Newell Highway at Jerilderie via Conargo and Deniliquin to Bendigo & Melbourne as an alternative route;
- Continue to facilitate (through sustainable road upgrades) heavy vehicle access to key agricultural and industrial producers throughout the Shire;
- Continue to facilitate (through road upgrades) heavy vehicle access approved routes in Deniliquin industrial areas;
- Work with TfNSW to protect the Cobb & Riverina Highways through Deniliquin but provide appropriate urban design treatment at key gateways to encourage local traffic through the town and its CBD;
- Examine if the Echuca/Moama Bridge will significantly reduce travel times to/from Deniliquin to attract businesses and residents to Deniliquin.

4.3. Rail

The Deniliquin Rail Line is an extension from Echuca to the terminus at Deniliquin (see blue lines on Figure opposite). It provides rail access through to the Melbourne port via Bendigo. The rail line is owned/maintained by VicTrack.

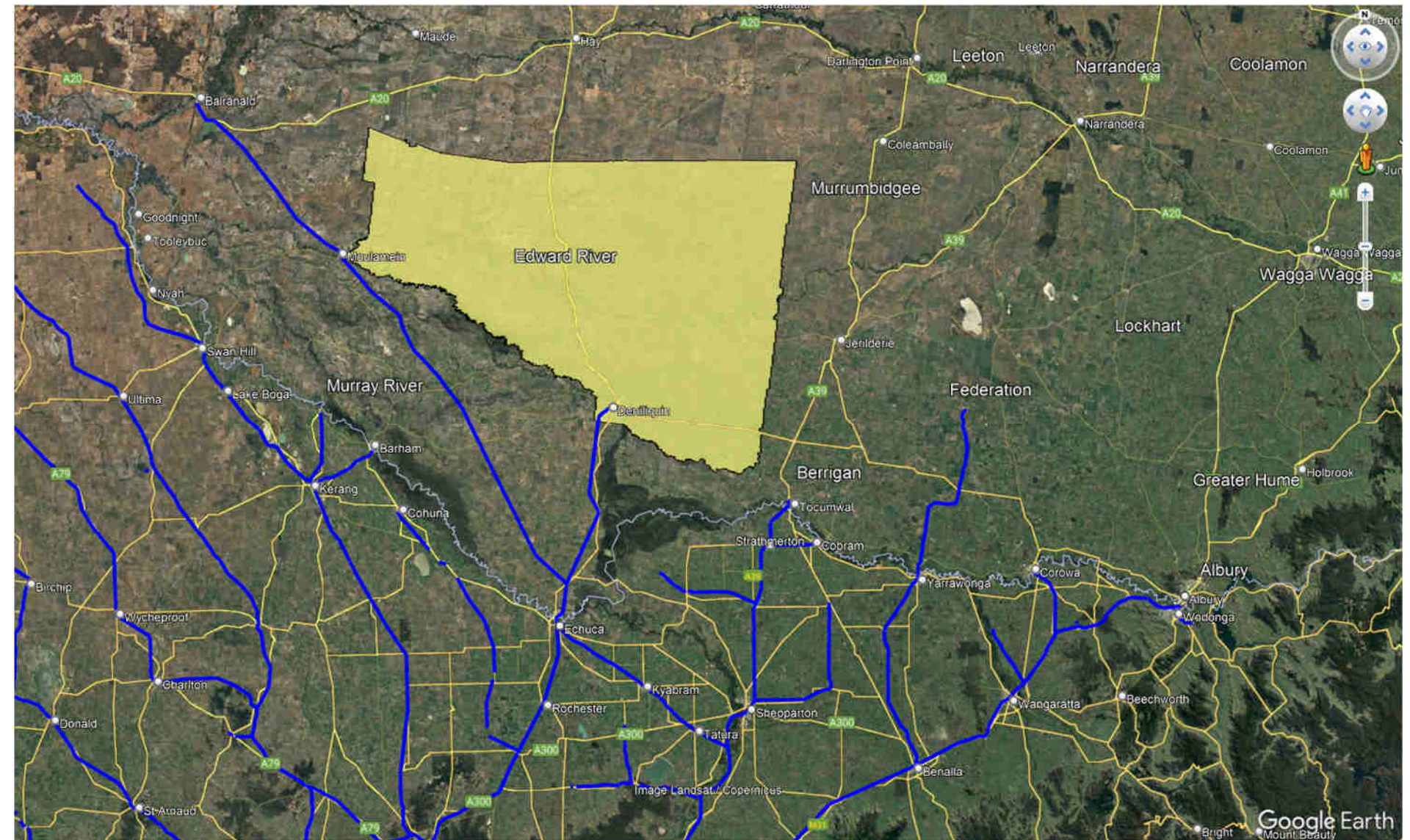
Passenger services ceased a significant time ago and the Deniliquin rail station has been removed though some irregular tourist services come to Deniliquin for special events. There is some community discussion around requesting VLine (Victorian trains) to extend up to Deniliquin (to be confirmed) but this would require a business case review.

The rail line runs up through the Zone IN1 General Industrial area of Deniliquin and borders several existing employment zoned sites with side tracks/sidings for GrainCorp and Sun Rice. The rail line is actively used for freight by Sun Rice and GrainCorp. Anecdotally, Sun Rice used to ship approximately 1 million tonnes of rice by rail but this is significantly reduced suggesting there is sufficient capacity for growth.

There may be opportunities to work in with the existing rail operators (possibly QUBE) or provide additional trains to move increased freight by rail to Melbourne port to keep this rail line active and maintained. This may require an additional inter-modal rail transfer siding in Deniliquin.

Several sites have rail frontage, but there is one particularly site (see the Industrial Section below) with a 1-1.1km rail frontage that has already sought grant funding to create an intermodal (which was not successful for a variety of possibly unrelated reasons) and claims to have sufficient freight load to make this worthwhile. The business case for this would require further review.

Figure 9: VicTrack rail network (blue) showing Deniliquin line and major highway network (yellow) (Google Earth with LGA/VicTrack overlays).



TRANSPORT INFRASTRUCTURE (RAIL): Key ongoing goals for ERC & the community regarding rail may include:

- Avoid or minimise any further removal of rail infrastructure other than vacant sheds;
- Encourage the continued use of the railway line by existing freight users and the odd tourist/passenger train so that the rail line is maintained and kept open for use;
- Try to increase the tonnage of freight that uses existing Sun Rice and GrainCorp rail sidings to leverage these sidings and remove freight from roads where possible;
- Review the business case for access and/or an additional private or general-use road-rail intermodal on key sites along the railway line;
- Even if there is not a current business case, protect the land along the railway line on larger sites from industrial encroachment so that future rail sidings may be facilitated;
- Protect the existing rail line from encroachment by potentially conflicting uses such as residential uses.

5. Other Infrastructure

5.1. Sewer/Water

Please see individual settlement chapter(s) for this information. Only Deniliquin has reticulated sewer and water. The other villages rely on on-site effluent management. Conargo and Wanganella pump water from Billabong Creek to tank storage which is a non-potable supply reticulated to some lots but rainwater should be primary potable supply.

5.2. Energy/Electricity

5.2.1. High Voltage Lines & Substation (Opportunity)

To the north-east of Deniliquin on the Riverina Highway there is a TransGrid132/66kVA substation that is connected to four (4) high-voltage 66/132kV transmission lines including south to Echuca-Moama / east to Finley / west to Moulamein / north-east to Narrandera (see Figure next page). In addition, there is an existing 220kV transmission network extending across the north-western part of the Shire connecting Darlington Point across south of Hay and Balranald to Broken Hill.

5.2.2. South-West REZ (Opportunity)

In 2022 the NSW Government announced the development of the South-West Renewable Energy Zone (SWREZ) that extends across the northern half of ERC into the adjacent LGAs to the north, west and east (see Figure next page). This aims to facilitate renewable energy projects in the region based on its strong wind and solar potential.

5.2.3. Proposed Energy Connect (Opportunity)

EnergyConnect (EnergyCo) is augmenting the high voltage network across northern edge of Shire. This includes construction underway for a new substation south of Coleambally (Dinawan substation).

Unfortunately EnergyCo has not yet created a map of renewable energy generation projects for the SWREZ.

There is already one industrial land owner in Deniliquin who has taken advantage of this major project and has been awarded a contract for the storage of some of the EnergyCo electricity infrastructure.

5.2.4. Proposed VNI West (Opportunity)

There is also a current project to connect Victoria to the NSW Interconnector West (VNI West) with a 500kV overhead transmission line from Bulgana (VIC) via Kerang (VIC) through to the Dinawan substation near Jerilderie (NSW).

A Preferred Corridor Report was issued in October 2023 (see Figure next page) and extends from Moulamein at the western edge of ERC, through the centre of ERC near Wanganella and north of Conargo. There has been pressure to extend this corridor north due to impacts on agriculture in the south and centre of the Shire. Transgrid states the project will:

- increase in the capacity to share electricity between NSW and Victoria;

- improve the reliability and security of electricity supply in both states;
- increase access to renewable energy sources;
- create an economic boost for regional communities through the provision of jobs, training, and local supply opportunities
- help achieve renewable energy targets and the overall decarbonisation of the National Electricity Market (NEM), while continuing to deliver safe, reliable, and affordable electricity to consumers.

5.2.5. Large Renewable Projects (Opportunity)

There are several renewable wind and solar projects along the Hay Plains in the north of the Shire that are either in planning phase with some listed in *AEC Briefing Note No.2 – Section 3.9 Major Projects*.

Council and key landowners should seek to capitalise on major projects to capture the demand for additional services, etc. Flow on effects may include, but are not limited to: investment in temporary workers' camps that could become more permanent short-term accommodation; investment in industrial sites for storage and logistics that get these sites ready for future subdivision & development; provision of services/industrial & manufacturing support to these projects; and increase in training programs to upskill locals or attract new staff to the region to live permanently.

5.2.6. Local Renewable Projects (Opportunity/Constraint)

There is also a solar farm application in Hogans Lane in NE Deniliquin but this is not yet approved with some site issues including proximity and impacts on nearby dwellings. Ideally, Council would identify some suitable sites for smaller scale renewable projects close to Deniliquin on suitable sites with less agricultural impact to attract investors and facilitate approvals processes.

5.2.7. Land Use Conflict (Constraint)

Not all of Council or the community agrees with the electricity network upgrades and renewable projects. There is some local opposition, particularly from farmers who see renewable/ electricity infrastructure taking up highly fertile agricultural land or conflicting with agricultural production. This may push larger projects to the north of (or outside of) the Shire.

5.2.8. Other Sustainable Energy Projects (Opportunity)

Council has previously tried to invest in renewable energy projects with some mixed success so the needs to be care to ensure appropriate feasibility to retain community support. There may be the potential to look at other energy sources such a biomass generator (for example – see Cowra proposals).

5.2.9. Network Issues (Opportunity/Constraint)

It is important to recognise that the changing nature of demand with lower demand from a shift to renewable energy is resulting in the electricity network at risk of exceeding allowable voltage levels during times of low demand and a potential under-supply in some areas when renewables cannot meet demand (see Transgrid (2 June 2022) *Maintaining Reliable Supply in the Deniliquin, Coleambally, and Finley area* for more details). This may result in the need for battery energy storage systems (BESS) and generators in the region to provide reactive power support but these are high-cost. The current preferred option is for two 11MVA 66kV reactors at Deniliquin to be potentially commissioned by 2024/2025.

5.2.10. Low Voltage Capacity (Constraint)

A key issue for Deniliquin's growth is the low voltage electricity network is already at capacity and/or the electricity authorities are requiring a new transformer for nearly every significant redevelopment. This is a significant cost constraint not just to private developers but also to Council. The cost of transformers is significantly reducing the viability of new development and inhibiting growth. Ideally, Council would engage with the electricity stakeholders to determine if there is a more cost effective way for more centralised electricity substation upgrades that can meet demand in infill site and key growth areas. However, there is no ability for Council or developers to capture future users of improved infrastructure so there is no incentive to adopt a holistic approach. There is also some scarcity of electricity network in some growth areas and the southern employment area.

5.2.11. High Energy Users (Opportunity)

Council already has several larger industrial operations (e.g., Sun Rice) that are likely to be higher energy users. With rising energy prices they may be looking to reduce their energy consumption from the grid or identify new more sustainable energy sources, particularly if their product market requires increased carbon offsetting. Initially, there may be opportunities for these industrial operators with large shed roof areas to invest in solar photovoltaic energy but this could also expand to biomass generation and other byproducts of their processes.

5.2.12. Council Energy (Opportunity)

Council may also wish to invest in solar generation on all its large roof facilities to offset electricity consumption and position itself as a sustainable council.

There are some large tracts of Crown land on the perimeter of the urban area (e.g., eastern side of Cobb Highway on southern entrance) that could potentially be <5MW solar farms.

There is potential to pick up some of the short term construction workers housing needs in Deniliquin or other villages.

Deniliquin is currently a major storage ground for Energy Connect infrastructure on the Caruso industrial site.

ELECTRICITY INFRASTRUCTURE: Key ongoing goals for ERC & the community (at the shire-level) regarding high-voltage & renewable electricity generation/ transmission may include:

- Council and key landowners should seek to capitalise on major projects to capture the demand for additional services & employment.
- Council should continue to represent its community in engaging with the major stakeholders such as EnergyCo, Transgrid, Essential Energy & renewable developers to ensure infrastructure is appropriately located and serviced, it minimises impact on agriculture and other sensitive users, and these assets can be leveraged to local and regional benefit.
- Council should seek to capitalise on investment in renewable energy to try to attract additional industries that are higher energy consumers or require offsetting of their energy consumption/carbon production to meet national and international market standards for their products.

Figure 10: Location of the South-West REZ; key transmission lines & Tchelery Wind Farm (<https://tchelerywindfarm.com.au>).

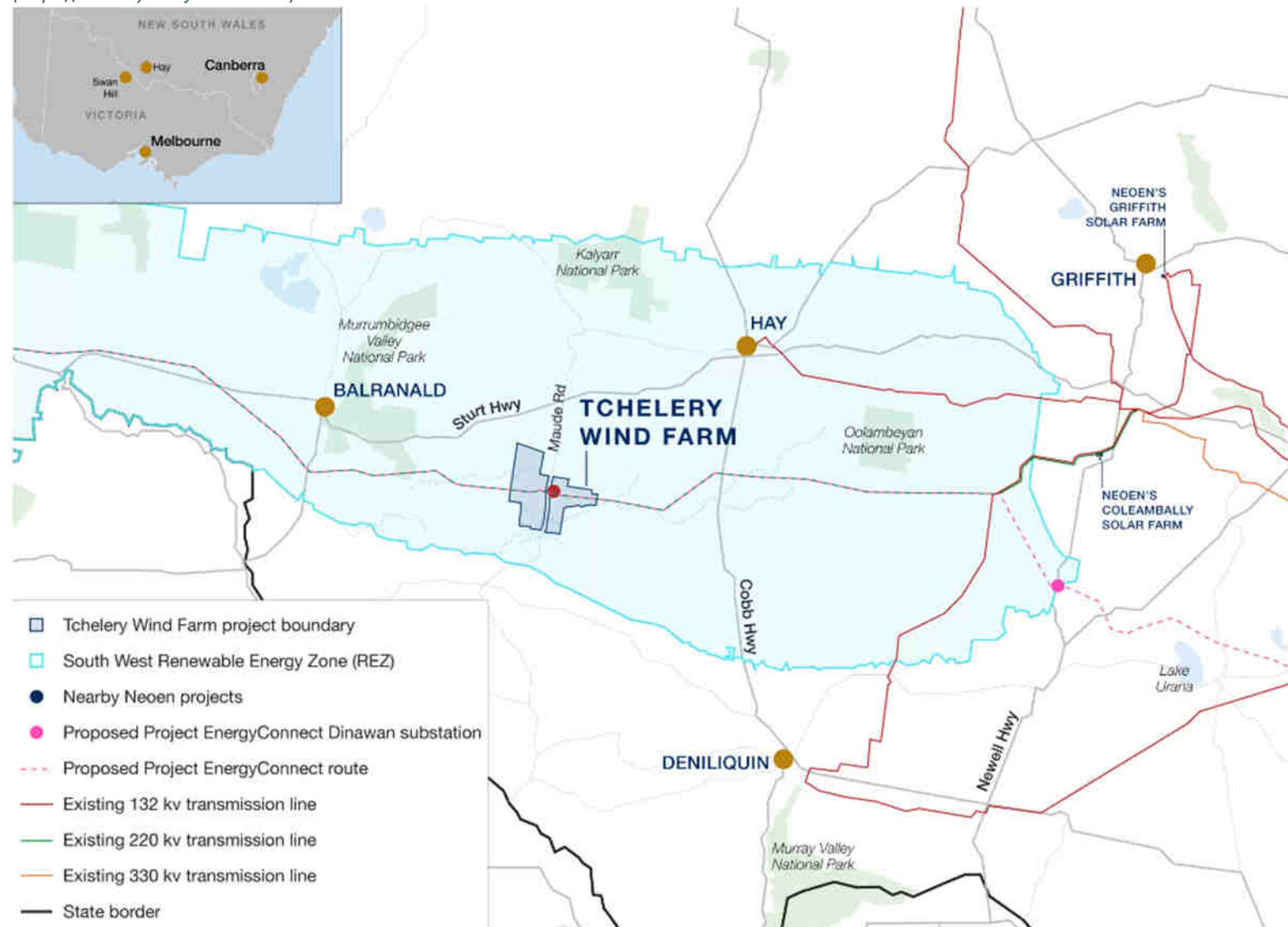


Figure 11: Essential Energy Infrastructure Map 66/132kVA lines near Deniliquin (EE Estimated Network Capacity Map).

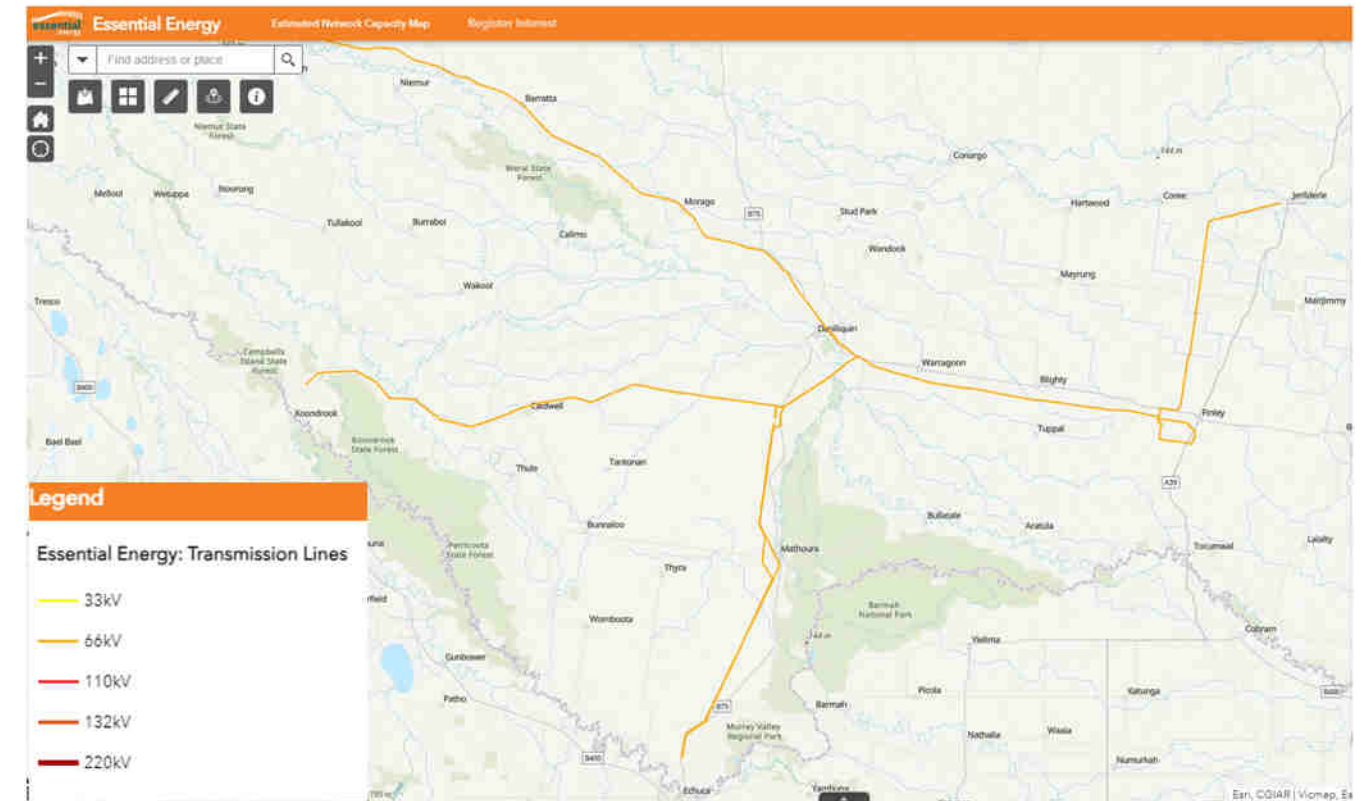
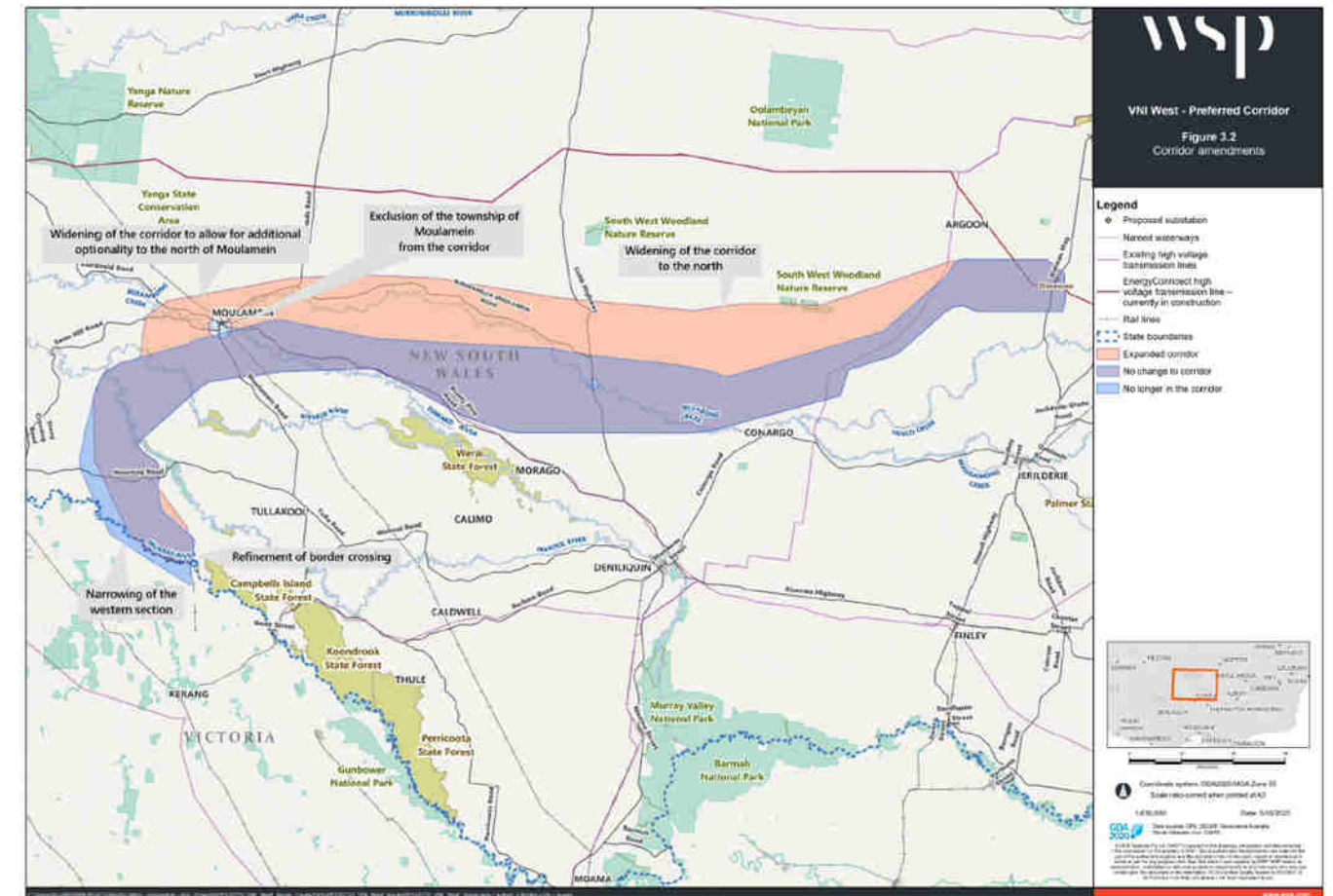


Figure 12: VNI West Interconnector Draft Route through Shire (October 2023).



5.3. Waste Management

5.3.1. Landfills & Waste Transfer

There is some evidence that waste management may also be a constraint to significant growth.

The Waste (Landfill) Depot to the north-west of Deniliquin is currently reaching capacity and has interface issues with large lot residential land uses to the south which may prevent cost-effective expansion into the former quarry.

The Waste Depot cannot expand north due to the Travelling Stock Reserve (TSR)/Crown land/ and possible Aboriginal land claim.

Council is reviewing the alternatives that may include raising levels or creating a new cell but some options may trigger Regional Significant Development and potential additional EPA licencing requirements at a significant cost.

If higher growth rates are to be achieved then Council may need to identify a new suitably located Waste Depot for Deniliquin.

The rest of the villages do not have licenced landfills and have limited capacity. Pretty Pine & Conargo are waste transfer stations. There are also significant costs with manned waste depots and transfer stations for all the villages across the Shire.

5.3.2. Waste Processing & Recycling

The Shire currently has the Council waste collection and Country Waste Systems for bulk waste.

Council is about to implement a 3-bin system with recycling and green waste and this may extend the life of its existing landfills but this will take an extensive education campaign for the community to separate waste streams and minimise contamination resulting in landfill.

There is RAMJO procurement with JR Richards to take recycling to Hay and Green waste (food & garden organic - FOGO Biomix) to Echuca.

It is become more difficult to send waste streams overseas so there is increased opportunity for waste processing in Australia.

There may be an opportunity to consider the feasibility of a regional waste management facility in the Shire that services western NSW with the potential to attract specialised waste recyclers (e.g., Green Distillation Technologies tyre recycling facility – Newcastle/ Wagga/ Warren in NSW / Geelong in VIC).

WASTE INFRASTRUCTURE: Key ongoing goals for ERC & the community (at the shire-level) regarding waste management may include:

- a) Finding a cost-effective way to extend the life of the Deniliquin Waste Depot for at least 10-15 years.
- b) Education to improve recycling and waste avoidance to extend landfill lifespans and reduce impacts.
- c) Encourage waste processing facilities in the southern industrial lands for key waste products generated in the region.
- d) Identifying a new Waste Depot if high growth is likely to be achieved and placing a buffer in the LEP to avoid conflicting land uses.

5.4. Recreational Infrastructure

Council has an *Open Space Strategy* for Deniliquin and Village Master Plans that cover recreation facilities so this report does not consider this infrastructure in detail.

All the settlements have significant areas of zoned and maintained recreational lands, particularly along the riverfront areas.

This is a major attraction in terms of lifestyle, recreation and sporting clubs and the visitor economy. However, it also requires significant investment by Council to continually upgrade and maintain these facilities.

In part due to the history of Conargo/Deniliquin Councils and the nature of a shire of villages – there is a degree of duplication of sporting and community infrastructure across the villages and even within Deniliquin that suggests facilities are not being used efficiently or cost-effectively.

This report recognises these recreation grounds are vital community connection points for each settlement, particularly for those villages that are more than 15-20 minutes' drive from Deniliquin so consolidation of all facilities is not suitable. However, expectations around management could be better documented to better utilise funding and recognise that some facilities are maintained to a high standard with community involvement.

There also needs to be careful investment in infrastructure that is flood affected. As natural hazard risks increase, infrastructure in the flood zone needs to be minimised and flood compatible/resistant.

If there was some rationalisation of recreation areas and funding – there may be potential to aim to create some regional level facilities at Deniliquin to attract major sporting events such as an athletics track or football stadium.

RECREATION INFRASTRUCTURE: Key ongoing goals for ERC & the community (at the shire-level) regarding recreation infrastructure may include:

- a) Continuing to provide a suitable level of recreational and community infrastructure in each settlement with clear expectations around levels of usage and maintenance and engagement with the community to minimise Council costs.
- b) Continue to minimise and manage infrastructure in flood prone areas to ensure it reduces long term cost and safety issues.
- c) Consider the feasibility and suitable sites for regional-level recreation facilities in Deniliquin.

7. Natural Environment & Hazards

7.1. Environmentally Sensitive Areas & Bushfire

As the Figure opposite shows, there are significant environmentally sensitive areas throughout the Shire including watercourse systems, wetlands, riparian land and watercourses, native vegetation, biodiversity, and groundwater vulnerability (LEP mapping only).

7.1.1. Watercourses

Most settlements are located on significant watercourses – with the primary being the Edward (Kolety) River at Deniliquin & near Pretty Pine followed by Billabong Creek which runs through Conargo and Wanganella.

These are a significant asset to the Shire which attracts boating, water-skiing, fishing, camping etc on the Edward River. However, these also raise several constraints to development/growth, not least of which includes flood potential (see more detail below).

7.1.2. Biodiversity

There is significant mapped sensitive biodiversity/vegetation in urban areas, primarily along watercourses and in recreation areas. Most areas that are likely to experience significant growth have the potential to avoid most significant trees but may still have native grasses and development may present a risk to threatened or endangered species. Increasingly the NSW Government will require a Biodiversity Assessment Method (BAM) Report to support a development application to confirm if there are any triggers for offsetting impacts and this can add significant cost to development.

7.1.3. Bushfire

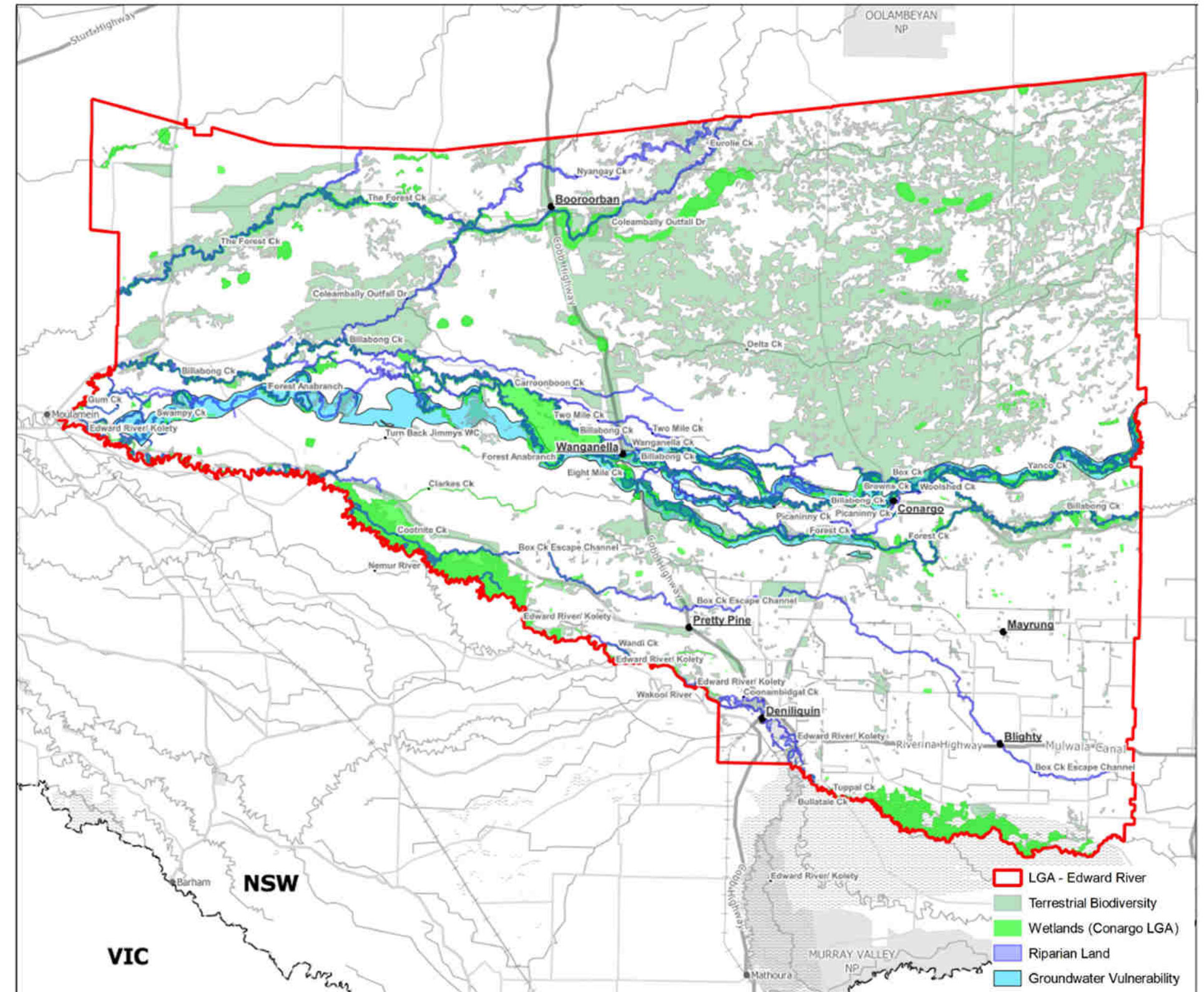
In the last 6-8 months Council has had its bush fire prone land maps upgraded by the Rural Fire Service (RFS) to include Vegetation Category 3 – Grassland fire risk. As a result, the mapped bush fire prone land has increased from a few patches around Deniliquin and Conargo to the entire Shire excluding core urban areas.

Any significant development e.g., subdivision or special fire protection purpose will require a Bush Fire Assessment. An issue is that there are very few qualified assessors in the region. Another issue is that those applications requiring RFS concurrence may experience delays which adds cost to development.

Where asset protection zones are required, this may conflict with increasing vegetation/biodiversity protections and offsetting cost requirements.

There may be an opportunity to have do bushfire assessment for growth areas in advance to minimise or mitigate cumulative costs from individual applications but management of asset protection zones may be difficult. Council should work with RFS to streamline assessment processes and ideally remove all suitably protected urban land from the bushfire maps.

Figure 13: ERC map of major watercourses, riparian lands, groundwater vulnerability, wetlands, and terrestrial biodiversity (LEP).



7.2. Flooding

The key constraint to the entire LGA/Shire is flooding. Most of the Shire is a floodplain. However, flood studies with more accurate mapping have only been prepared for Deniliquin and Conargo with some flood data for Wanganella. Deniliquin, and to a lesser extent Conargo, are reliant on human-made levee banks of different heights/levels of protection.

Flooding is a part of the natural environment and supports the riverine environment. However, flooding can inundate, isolate, and cut settlements. It can also pollute primary water sources and damage infrastructure.

Traditionally planners have encouraged residential or core urban development at the Flood Planning Level (FPL) – 1% Annual Exceedance Probability - AEP (close to the 1:100 Annual Recurrence Interval – ARI) + 300-500mm freeboard but commercial and industrial development – particularly in historic villages has often occurred below this level.

Flood planning is moving towards a risk based approach – but due to several recent major flood events (e.g., 2022 floods) the appetite for risk is becoming more conservative and there is increased NSW Government pressure to avoid all significant development below the FPL and avoid critical/hazardous infrastructure and land uses within the Probable Maximum Flood (PMF). This has significant consequences on development/growth on floodplains (like most of western NSW).

Flood information is limited with Flood Studies only prepared for Deniliquin and Conargo (so flood maps are provided in the chapters for these settlements).

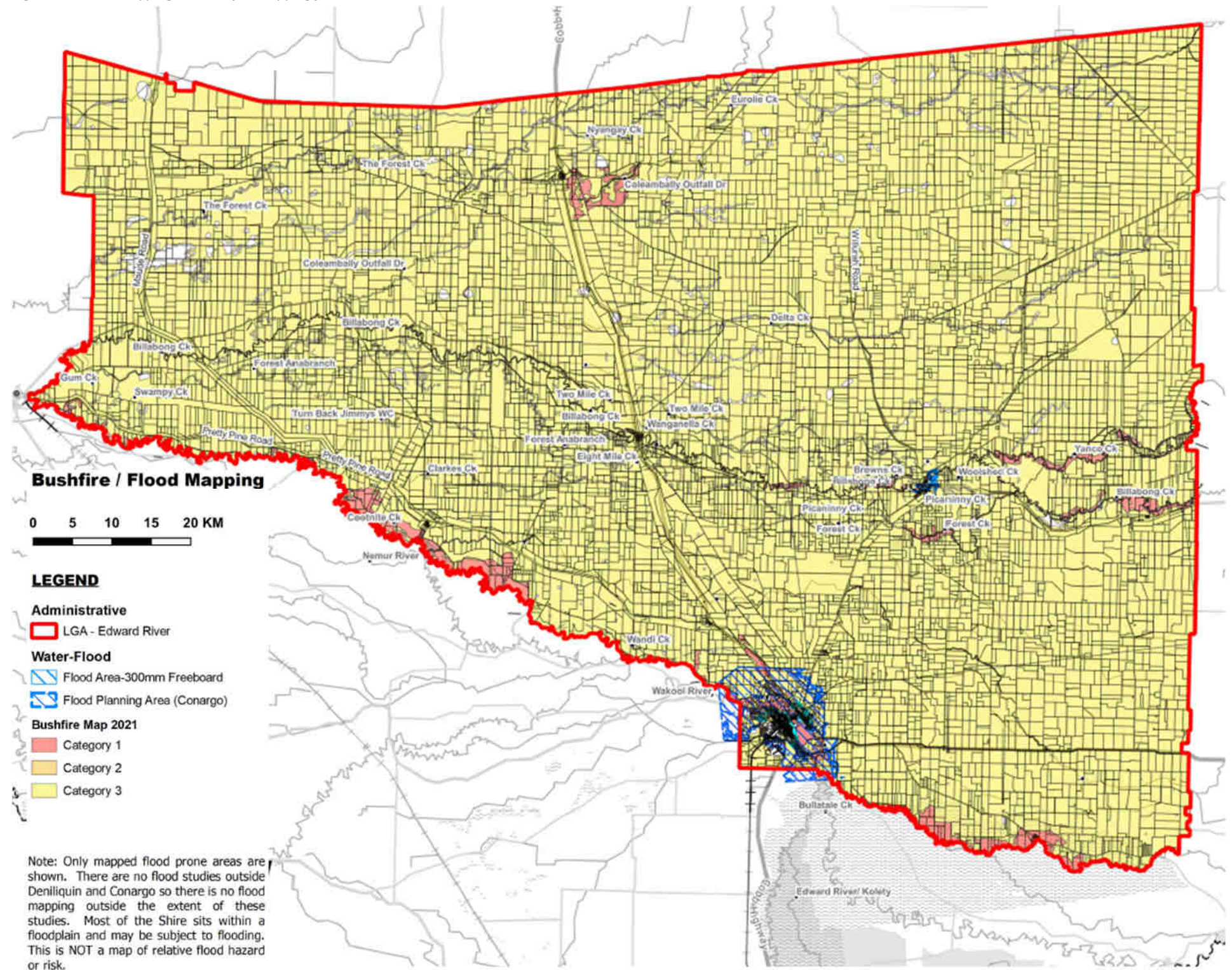
Ideally, flood studies should be prepared for any settlements that will experience any significant growth or improved infrastructure to ensure this growth is adequately protected.

There is some anecdotal evidence in some other villages (e.g., 2012 flood Wanganella; 2022 flood data) but this significantly limits the opportunity to clearly identify growth outside the Flood Planning Level (FPL).

As with many floodplain areas, the ERC Shire is largely flat except where watercourses have clear banks so there are very few elevated locations with natural flood protection. As more detailed information (such as LIDAR contour data) has become available – the knowledge of flooding has increased.

This is addressed in more detail for key settlements in the other chapters of this report.

Figure 14: Flood mapping and bushfire mapping for Edward River Shire.



8. Preliminary Planning Control Amendments

This is a high-level preliminary review and suggested indicative amendments to key planning controls/tools that may be needed to cater for and facilitate growth set out in this report. It is not a detailed planning control review.

8.1. LEP Consolidation

In 2023, Council was already in the process of consolidating the three (3) Local Environmental Plans (LEPs) that provide the key planning controls governing the Shire – see Planning Proposal PP-2022-3030).

This is a significant step forward as it will simplify the planning system, reduce inconsistencies in permissible land uses/controls between the former Conargo and Deniliquin Shires, and move forward in zoning the Deferred Matter area along Davidson St in Deniliquin. This consolidation should be supported and clearly communicated to the community.

The consolidated Edward River LEP also seeks to integrate more recent minor changes to the planning system including, but not limited to:

- Translation of employment/business zones from 'B' to 'E' zones;
- Translation of environmental zones from 'E' to 'C' zones; and
- Rezone several key recreation facilities in the villages from Zone RU1 Primary Production to Zone RE1 Public Recreation to facilitate uses permitted in that zone.

8.2. Land Use Growth Investigation Areas

8.2.1. Urban Residential

To accommodate future growth, this Strategy suggests the need to consider planning controls that protect suitable Zone R5 Large Lot Residential land within the southern and northern flood levees from further fragmentation so that they enable future urban residential expansion.

One option may be to rezone these areas to Zone R1 General Residential subject to utility servicing plans (see below) with Structure Plans embedded into the DCP to guide future development pattern.

Alternatively, consider increasing the minimum lot size for subdivision if not connected to reticulated services in this area and decreasing it if it is connected (within the levee only).

8.2.2. Industrial & Infrastructure Protection

This Strategy seeks to clearly identify and protect existing and future industrial and core infrastructure land in Deniliquin from incompatible encroachment of other sensitive land uses. This is a core strength for the Shire.

Council may consider adding buffer/setback mapped areas to higher-impact land uses and infrastructure (e.g., Sewage Treatment Plants and Waste Depots) so that encroachment can be appropriately identified during the development assessment process. This includes Obstacle Limitation Surface (OLS) and noise (ANEF) mapping around the Airport.

8.2.3. Commercial Uses

This Strategy suggests adopting a staged approach to expansion of any employment 'E' zones that permit commercial (business and retail) uses so that it does not undermine infill development and adaptive re-use in the town centre.

Council should continue to work closely with businesses seeking new sites to see if they can adaptively re-use sites in the town centre or it is more appropriate for new land towards the perimeter of the town centre, primarily on or near the highway frontage.

Some potential planning tools that require further investigation include, but are not limited to:

- Active Street Frontages:** Mapping those core retail streets with consistent retail frontage and ensuring that the ground floor presentation to the street maintains active (ideally commercial) uses. This may include Standard Instrument LEP clauses for Active Street Frontages.
- Dwelling Permissibility:** There may need to be a review of the permissibility of dwellings in Zone B2/E1 Local Centre to ensure these do not convert existing shops in key retail streets, particularly at the ground-floor level facing the street. Bank and other commercial buildings without a strong active frontage may be OK for conversion but some clear development controls are required to guide this infill development.
- Higher Densities:** Some higher density residential uses may need to be permissible in Zone B2/E1 Local Centre to facilitate adaptive re-use of some key sites. However, these need to integrate with the core heritage conservation area.
- Logistics & Distribution:** Facilitate retail with rear-serviced ancillary packaging and distribution to transition suitable small-scale retail to online shopping and utilise rear lanes and mid-block parking/service areas.
- Complementary Uses:** Facilitate 'artisan food and drink industry' (already permissible as 'light industry' in Zone B2/E1 Local Centre) as a permissible use in the 'E' zones to complement standard food and drink premises with micro-breweries and wine bars and provide experience-based retail whilst utilising the rear portion of these lots.

artisan food and drink industry means a building or place the principal purpose of which is the making or manufacture of boutique, artisan or craft food or drink products only. It must also include at least one of the following—

- a retail area for the sale of the products,
- the preparation and serving, on a retail basis, of food and drink to people for consumption on the premises, whether or not liquor, take away meals and drinks or entertainment are also provided,
- facilities for holding tastings, tours or workshops.

Note— See clause 5.4 for controls in certain zones relating to the retail floor area of an artisan food and drink industry.

Artisan food and drink industries are a type of **light industry**—see the definition of that term in this Dictionary.

8.3. Development Servicing Plans (DSPs), Contributions Plans, & Lot Size

Council should prepare a Development Servicing Plan (DSP) for the desired sewerage and water infrastructure and costings needed to support the key growth areas identified in this Strategy out to 2051 – creating a transparent link to development costs. It may include nominal 600-800m radius areas for sewer pump stations.

Council should prepare a supporting Contributions Plan(s) to capture developer funding for new sewer infrastructure, clearly document justifications required for exemption or concessions (only in exceptional circumstances), and aim to facilitate logical and cost-effective extension of infrastructure at lowest cost to ratepayers.

There may need to be a review of Contributions associated with Large Lot Residential development as this development type may have lower costs (excluding flood management) compared to urban residential development. The aim should be to encourage urban residential development over large lot residential development in areas closer to the town centre as this is a more sustainable use of limited land supply. Council should review planning controls to look at incentives to partly offset the additional costs of connecting to reticulated sewer. This may include smaller lot sizes (Existing LEP already applies a Minimum Lot Size for Torrens Title Subdivision of 5,000m² / 0.5ha in most Zone R5 areas but this can be reduced if connected to reticulated sewer), increased yields, or concessions on other planning controls that do not significantly impact desired planning outcomes.

8.4. Hazard Mapping

We suggest a review the current bushfire prone land maps to identify appropriate ways to protect key urban growth areas from bush fire and ideally, as a result, implement that protection so that RFS can remove bushfire mapping from that land. This would avoid the additional cost of individual bushfire assessment reports, reduce constraints to development, and speed up the development assessment process.

Once the North Deniliquin Levee Project is complete – update the flood planning area map to confirm that all land within the levee is protected up to the Flood Planning Level (FPL).

Consider if, and when, it may be suitable to adopted Standard Instrument LEP *Clause 5.22 Special Flood Considerations* that may identify core infrastructure that should ideally occur outside the Probable Maximum Flood (PMF) area for improved long-term sustainable development (e.g. hospitals, sewerage treatment plant etc).

If growth is likely to significantly increase in the village or large lot residential areas outside of Deniliquin then seek funding to prepare flood studies for these areas (on a risk/needs basis) to appropriately locate development outside of high hazard areas. All growth investigation areas should be above the 1% AEP Flood Planning Level for future sustainability.