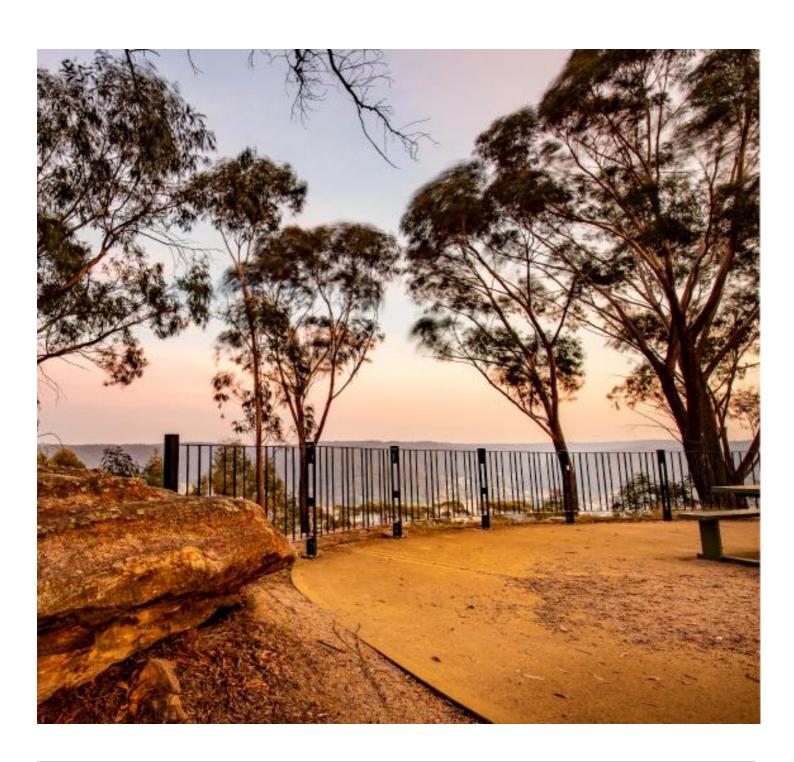
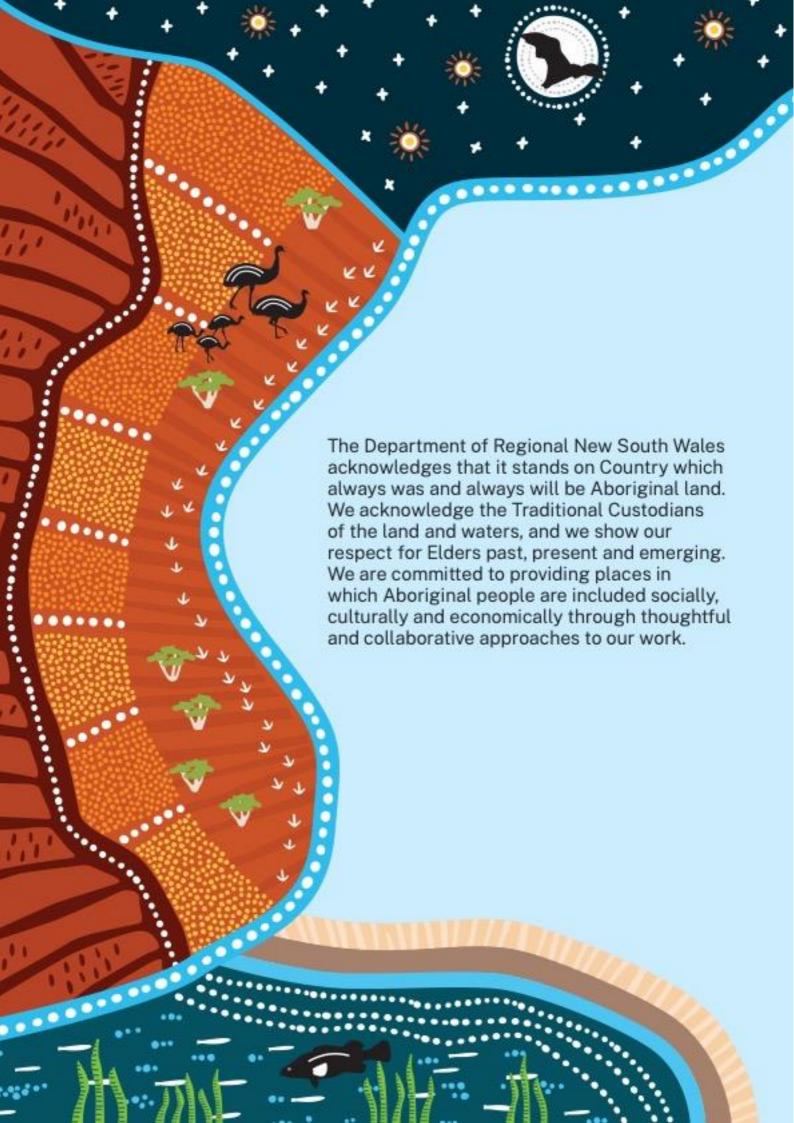


Lithgow Regional Economic Development Strategy – 2023 Update





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On Country - Artwork by Mumbulla Creative

On Country captures the many different countries located within the Department of Regional NSW footprint. Only part of the image is shown on the Acknowledgement of Country page. The regions included in this partial image are detailed below.

The Far West region of NSW is represented by red earth plains, mallee scrubs and an abundant emu population. Freshwater countries are referenced by the expansive network of rivers stretching through the regions. The Riverina Murray region is represented by the roots of a river redgum on the banks of a river, and a large Murray Cod can be seen in the river. The night sky features as it plays an important navigational and storytelling role in traditional life.

Cover image: Bracey Lookout. Photo credit: Lithgow City Council.

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1. Executive summary

Changes in the Lithgow region since 2018

In 2018, the NSW Government developed Regional Economic Development Strategies (REDS) for 38 Functional Economic Regions (FERs) across regional NSW. Since publication, regional NSW has endured shocks including bushfires, floods, COVID-19 and the mouse plague, and significant new economic opportunities have emerged. The 2023 REDS Update provides an updated evidence base to guide governments in making policy and investment decisions to enhance resilience and drive sustainable, long-term economic growth in regional NSW.

The Lithgow region has seen significant investment delivered since 2018, with additional projects in the planning or delivery stages



More than **\$50** million invested in **ecotourism** initiatives in the region including the Gardens of Stone.



Development of the Maldhan Ngurr Ngurra Lithgow Transformation Hub.



Development of The Foundations Portland.



\$6.5 million invested in the **Thales Lithgow Arms facility and advanced manufacturing** hub.

Since 2018, the region has recorded decreasing unemployment, record levels of job vacancies and significant increases in house prices



-2.2% population growth since 2018.



Housing vacancy rates sit **below 1%**, with median house prices having risen **by 30**% since 2018.



The proportion of the **population over 55 years old** has increased by **1.2 percentage points** since 2018.



Unemployment has decreased by more than **4**% since 2018, with job vacancies in the broader region reaching an all-time high of **2,523** in 2022.

Lithgow's engine and emerging industries continue to support growth and increased diversification of the local economy



Tourism

+ 2.4 % Year-on-Year (YoY) growth from 2011-2020		\$ 72 million visitor spend in 2021	1,536 jobs supported in 2021	
*	Energy supply (including	g renewables)		
- 2.4 % YoY gr	owth from 2011-2020	\$ 143 million Gross Value Added (GVA) in 2020	274 jobs supported in 2021	
	Mining			
+ 0.1% YoY gro	owth from 2011-2020	\$ 885 million GVA in 2020	662 jobs supported in 2021	
	Manufacturing			

\$55 million GVA in 2020

410 jobs supported in 2021

Key themes from local consultation

- 4.1% YoY growth from 2011-2020

Stakeholders from Lithgow have highlighted economic diversification and land activation as key priorities for the region.

A changing economic landscape



Stakeholders are looking to maximise the opportunities presented by economic diversification, with a key focus on growing the visitor economy.

Unlocking growth potential



Stakeholders highlighted the need to facilitate the release and activation of residential and employment lands so to enable population and economic growth in the region.

Growing emerging capabilities



Stakeholders highlighted potential to leverage significant regional endowments and recent investments to grow emerging industries including renewable energy and circular economy processes.

Lithgow REDS - 2023 Update strategies and enablers

Strategies	Enablers
Drive local capability and attract investment in emerging industries including renewable energy, circular economy processes and advanced manufacturing.	 Undertake precinct planning to support growth in emerging industries as part of the region's long term economic diversification, identifying opportunities to repurpose underutilised land, water entitlements and infrastructure. Investigate and effectively communicate with the community about the likely impacts of, and opportunities presented by, economic diversification, as a mechanism for building social licence and increasing support for change in the region. Utilise Expert Panels under the Royalties for Rejuvenation Fund to examine options to support economic diversification, including by funding infrastructure, services, programs and other activities.
Activate and cultivate a local culture of entrepreneurship and innovation.	 Collaborate with Greater Western Sydney and Aerotropolis stakeholders to identify opportunities for growth in manufacturing, wholesale trade, logistics and tourism. Identify opportunities to support the creation and growth of new Small and Medium Enterprises (SMEs), with a particular focus on knowledge-intensive, creative and service-based sectors.
Create and adapt labour force capability in line with future industry needs.	 Leverage the Maldhan Ngurr Ngurra Lithgow Transformation Hub to develop upskilling and reskilling programs and support the adaptive capacity of the emerging regional workforce, including through strengthening science, technology, engineering and mathematics (STEM) outcomes in regional schools.
Prioritise lifestyle infrastructure and local place-making to create a vibrant community which supports population growth.	 Investigate opportunities for high-quality residential and employment land release across the region, including (but not limited to) potential growth areas identified in the Marrangaroo Masterplan and Development Control Plan.
Develop a diverse and collaborative visitor economy.	 Develop the region's tourism infrastructure to support growth of its ecotourism offering, leveraging key endowments including the Gardens of Stone Conservation Area. Facilitate the creation and growth of festivals and events in the region, with a focus on developing local workforce visitor economy capabilities and enhancing endowments in arts, cultural and recreational offerings.

2. About the 2023 REDS Update

In 2018, the NSW Government and local councils developed a series of Regional Economic Development Strategies (REDS) for 38 Functional Economic Regions (FERs) across regional NSW. FERs are made up of one or more Local Government Areas (LGAs) that work together to create smaller economies with strong economic links.

Supporting the 20-Year Economic Vision for Regional NSW, the REDS set out a place-based vision and framework for economic development for each FER. The REDS identify each FER's endowments, industry specialisations and key vulnerabilities and opportunities, and outline economic development strategies and actions to leverage these strengths.

Since 2018, regional NSW has endured many challenges including drought, bushfires, floods, COVID-19 and the mouse plague. At the same time a range of broader state-wide trends and actions continue to change the economic landscape across regional NSW, including digital transformation, increased remote working and the shift towards net zero. These challenges and trends have altered the landscape of economic development in many regions and created new opportunities for growth.

The 2023 REDS Update provides an updated evidence base to guide governments in making policy and investment decisions to enhance resilience and drive sustainable, long-term economic growth in regional NSW. The objectives of the update are to:

- Highlight progress: reflect on significant initiatives and investments that have supported progress against the key strategies and actions in the 2018 REDS.
- Capture major changes: Identify and assess the impacts of major changes to regional economies since 2018, including the effect of recent shocks such as bushfires, droughts, floods, mouse plagues and the COVID-19 pandemic.
- 3. **Identify strategic opportunities:** Identify key strategic opportunities and vulnerabilities for engine and emerging industries, as well as any changes to local endowments.
- 4. **Set the foundation for the future:** Review, affirm and/or adjust the 2018 strategies, including consideration of new strategies to meet emerging priorities, to ensure they remain relevant.
- 5. **Identify key enablers to guide future action:** Develop a non-exhaustive list of priority enabling actions that will support the 2023 REDS Update strategies.



Figure 1: Gardens of Stone National Park. Photo credit: Destination NSW.



Figure 2: Mountain biking at Hassans Walls Reserve. Photo credit: Lithgow City Council.

3. About the Lithgow region

The Lithgow FER is situated around 140 kilometres west of Sydney, on the western slopes of the Blue Mountains. The region is solely comprised of the City of Lithgow Local Government Area (LGA).

The main administrative and population centre is Lithgow, with a network of smaller towns and villages in the region including Capertee, Cullen Bullen, Hartley, Meadow Flat, Portland and Wallerawang. The region includes a number of major national and state parks, including parts of the Blue Mountains World Heritage Area.

Total area covered (km²)	4,551
Population (2021)	20,854
Size of the economy (2020)	\$1.9 billion
Total employment (2021)	8,198

Source: Australian Bureau of Statistics (ABS) Estimated Resident Population (2021), REMPLAN (2020), ABS Census (2021).

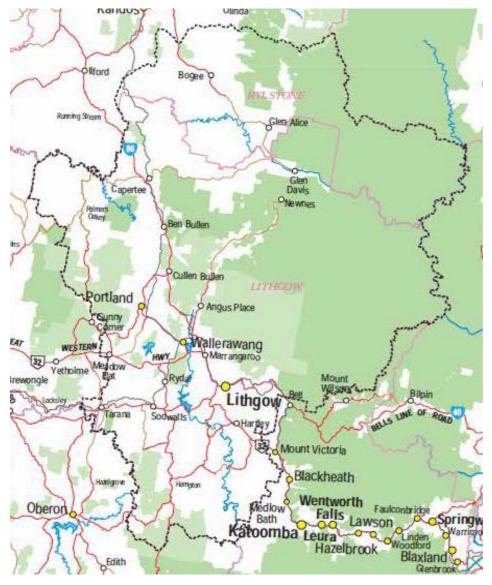


Figure 3: Map of the Lithgow Functional Economic Region.

4. The 2018 Lithgow REDS and 2020 Bushfire Addendum

In the 2018 Lithgow REDS, the region was actively pursuing growth and diversification of its economy, particularly through targeting tourism and small business development. Endowments recognised in the document spanned natural, social and infrastructure assets, many of which were central to the approach to enabling economic development in the region.

The 2020 Lithgow Bushfire Impact Addendum explored the implications of the 2019-2020 bushfires for key industries in the Lithgow region. While it was noted that significant natural and recreational amenity had been impacted by the 2019-2020 bushfires and that the tourism industry would need short term support, it was concluded the bushfires did not materially impact on most areas of strategic focus identified in the 2018 REDS.

2018 Lithgow strategies

	Drive local business capability and inward business investment.			
Ø	Activate and cultivate a community of economic development leadership.			
2:2	Create labour force capability in line with future business needs.			
<u>"</u>	Prioritise lifestyle infrastructure and local place-making.			
	Foster a collaborative and vibrant community led by a diverse and inclusive culture.			

2018 Lithgow specialisations

The industry specialisations below were identified as comparative advantages for the Lithgow region in the 2018 REDS, based on employment concentrations in industry sectors.

$\widehat{\underline{\mathbf{m}}}$	Public administration and safety
	Tourism
*	Electricity supply
	Manufacturing
TAP	Mining

2018 Lithgow endowments

The Lithgow region is home to a wealth of physical, institutional, built and human endowments. These endowments play a key role in enabling success and growth across its industry specialisations.

Endowment	Relevant 2018 specialisation
Proximity to Sydney and the Central West	\$ 4 2
Access to key transport infrastructure: Great Western Highway, Castlereagh Highway, Bells Line of Road	
Train connection to Sydney, including Mascot and future Western Sydney Airport	
National parks, state forests and reserves: Turron, Gardens of Stone, Wollemi, Capertee Valley, Hassans Walls Reserve	<u>\$</u>
Cool climate	
High average rainfall	♣ ♦ ₽
Rich Aboriginal heritage	
Industrial heritage sites: Zig Zag Railway, Small Arms Factory Museum, Blast Furnace Park, Eskbank House	
Access to the Western Coalfields coal seam	
State significant sand and construction resources	
High grade oil shale deposits at Glen Davis	
Affordable land and housing (compared to Sydney)	
Rail lines: Main Western Line, Capertee Tourist Train, Wolgan Valley Rail Trail	
Educational institutions: University of Western Sydney, University of Notre Dame Rural Clinical School and Lithgow College (TAFE NSW)	
Strong network of community, artistic and cultural groups	
Mount Piper Power Station	4

5. The big picture: Shocks and trends impacting the Lithgow region since 2018



Figure 4: View from Pearsons Lookout, Capertree. Photo credit: Lithgow City Council.

Significant events impacting major industries

A sustained period of drought, followed by major bushfires and flooding had severe environmental and economic implications for the Lithgow region. The COVID-19 pandemic further challenged the region, with local businesses suffering and residents feeling the impact on their personal wellbeing and financial security. From the period 2018 to 2022, the region had nine disaster declarations^[1] and received \$8.7 million in disaster recovery grants.^[2]

Drought

The Lithgow region experienced substantially below average rainfall between 2016 and 2020, leading to sustained drought conditions in much of the region. [3] However, thanks to relatively secure water supplies, the region was not required to introduce water restrictions during this period.

While agriculture is not an engine industry in the region, those operating in the sector in the region were impacted, with significant support provided by Lithgow City Council through access to water at half price to drought affected farmers.^[4]

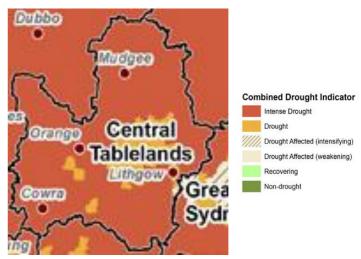


Figure 5: Combined Drought Indicator, 12 months to 31 December 2019 (Department of Primary Industries (DPI), 2022).

Bushfires

The region was significantly impacted by the 2019/20 bushfires. The Gospers Mountain Fire damaged and destroyed properties on the edge of Lithgow itself, causing substantial damage to a range of infrastructure, including the tourism assets of the Lithgow State Mine Heritage Park and the Zig Zag railway.^[5]

The 2019-20 bushfires burnt more than 52% of the area of the LGA, with around 341 km² of forestry land damaged. [6] More than 250 properties were damaged or destroyed, and more than 90% of bushlands and forests were damaged. [7]

The region's visitor economy was heavily impacted given sustained interrupted access to the region and direct damage to national and state parks and visitor infrastructure. Access issues brought about by the closure of key roads such as the Bells Line of Road impeded key freight routes, impacting the export capabilities of local industries.^[6]



Bushfire impacted

Figure 6. Bushfire impact areas within the Lithgow region.

COVID-19

The Lithgow region also felt the impacts of the COVID-19 pandemic, with 58% of local businesses reporting that the pandemic negatively affected their business. ^[8] Beyond impacting businesses, the pandemic also brought about financial hardship for local residents, with the number of JobSeeker recipients in Lithgow rising by 43%, and Health Care Card holders by 17% from March to June 2020. ^[9]

Mouse plague

The Lithgow region was also impacted by the 2021 mouse plague, which saw damage to crops and stores across the agriculture and horticulture sector. To support impacted communities, the NSW Government made available up to \$95 million for primary producers in financial need, and \$45 million for the Small Business and Household Mouse Control Rebate.^[10]

Floods

In 2021 and 2022, the Lithgow region was impacted by a number of floods resulting from heavy and sustained rain, similar to many parts of the eastern seaboard. Heavy and sustained rain in March 2021 caused roads to be cut and damage to infrastructure in low lying areas. [11] In January 2022, a storm cell hit Lithgow, with more than 70mm of rain in just 30 minutes causing localised flash flooding of homes, cafes, shops, a church, roads and other facilities. [12]

Further sustained rain and flooding events occurred on multiple occasions throughout 2022, with parts of the region, such as Glen Davis, cut off on multiple occasions. [13] Residents in the Wolgan Valley were isolated by a major landslip and the emergency access track was flooded. [14] Flooding in November 2022 caused substantial disruption to the gas supply across the Central West region, including Lithgow, with significant impacts for industry and the community. [15]

It has been estimated that the indirect impacts of floods, such as transport infrastructure damage and supply chain interruptions impacted twice as many businesses in the region as direct flood impacts. This highlights a need to continue to enhance the resilience of infrastructure, supply chains and transport routes as part of ongoing repair and recovery efforts.

Macroeconomic trends shaping the region's future

Macroeconomic trends related to changing energy supply demands and digital economy growth have played a significant role in the Lithgow region since 2018, and will continue to have a strong influence on its future. The shift towards net zero in particular will present both opportunities and challenges as part of the overall effort to promote increased diversification of the region's economy.

Trend		Opportunities and risks
Digital Transformation	A shift to online service delivery and business models as a result of the COVID-19 pandemic has impacted on the revenue of businesses in the Lithgow region, in particular small businesses operating in the tourism and retail sectors. Meanwhile, the role of digital connectivity in supporting skills and industry development has been highlighted by the Maldhan Ngurr Ngurra Lithgow Transformation Hub, which provides co-working, meeting, learning and research space to support local residents and industry, including by enabling remote collaboration. [17]	Regional endowments, such as the Maldhan Ngurr Ngurra Transformation Hub can support local entrepreneurship and businesses in the region. Increased demand for digital services puts increased pressure on telecommunications infrastructure, potentially creating digital reliability and service quality issues.
Changing Migration Patterns	The COVID-19 pandemic increased the number of remote workers who are taking advantage of the regional lifestyle while maintaining metro-based employment, with regional NSW gaining an additional 26,800 residents across 2020 to 2021 while Sydney declined by 5,200. ^[18] While the region's population growth rate is yet to reflect this trend, Lithgow's proximity to Sydney, supported by a well-established rail connection, places the region in a prime position to attract people working remotely who are looking for the amenity and liveability benefits that come with regional living.	Enhancing social infrastructure and amenity to attract remote workers can aid growth in the region's population. Growing capabilities in emerging industries may support the region to entice skilled workers to relocate to the region and take up local employment.
Towards Net Zero	The mining industry accounted for 43% of Lithgow's GVA in 2020, with coal mining contributing 98% of industry output. Coal fired power generation drives the region's current specialisation in electricity supply. As industries move toward net zero, Lithgow will face opportunities and challenges relating to diversifying its economy, including repurposing its significant workforce and infrastructure capabilities in these areas. The potential redevelopment of the Wallerawang Power Station into a multi-use precinct incorporating a network scale battery demonstrates the region's potential. The region also shows potential for expansion into the	The region's proximity to major centres, availability of mining land and energy infrastructure for potential redevelopment and access to major transport routes can support growth in circular economy processing. Retraining the region's mining workforce to support opportunities in areas with complementary skill sets, provides an opportunity to support

hydro-electricity sector, as demonstrated by the proposed Lake Lyell pumped hydro project.

future growth and ensure impacted workers benefit from diversification.



Uncertainty

The Lithgow region has experienced a number of significant climate events since 2018, including drought, bushfires and floods. With the frequency and intensity of events anticipated to increase in coming decades, there is a need to enhance climate and economic resilience. [19]

The region faces a period of economic uncertainty as changes to energy generation and decarbonisation continue to progress.

Global supply chain constraints also create uncertainty for the region. The region's ability to leverage major projects, such as the upgrades to the Great Western Highway and Greater Western Sydney developments, to grow sectors such as construction may be constrained by ongoing supply chain challenges.

Rising uncertainty has placed upward pressure on inflation, driving up costs for business.

The region's position on key transport routes connecting the Central West region and Greater Sydney provides opportunities for the region to grow value-add manufacturing. This could serve both the regional and metropolitan market, which can support economic diversification while also enhancing local supply chain resilience.



Figure 7: Blast Furnace Park in Lithgow. Photo credit: Lithgow City Council.

6. Responding to change: Initiatives and investments since 2018



Figure 8: The Foundations Silos, Portland. Photo credit: Lithgow City Council.

Since 2018, Lithgow City Council, the NSW Government and other key organisations have delivered new and updated strategic documents and plans that help guide economic and community development in the region. These documents support the development of local enabling actions that contribute towards progress against key REDS priorities and strategies.

Strategies and plans	Relevant 2018 strategies
The Central West and Orana Regional Plan 2041 sets out the strategic planning framework for the broader region, highlighting key planning and land use priorities to support population growth and help create a diverse regional economy.	
Key strategic plans for the Lithgow region include the Lithgow Community Strategic Plan (CSP) 2035 and the Lithgow 2040 Local Strategic Planning Statement, which seek to support industry and population growth alongside enhancing community, economic and environmental outcomes.	
The Marangaroo Masterplan and Development Control Plan aims to facilitate the release of residential and employment lands to aid in the economic growth and diversification of the region.	<u></u>

Strategies and plans	Relevant 2018 strategies
The Central West Expert Panel has been established to provide advice and recommendations on applications received through the Royalties for Rejuvenation Fund and ensure decision-making is aligned with the needs of the local area.	<u></u> ✓ •••
Lithgow City Council's Local Emerging Economy Project (LEEP) is developing baseline economic analysis of the region and will provide recommendations as to the best approach to diversification and industry growth.	
Lithgow's Transition Working Party has sought to leverage connections with fast-growing Greater Western Sydney through collaboration with the Western Sydney Regional Organisation of Councils (WSROC).	<u></u> Ø ❖ ♣
The draft Central West Destination Management Plan 2022-2030 seeks to establish a collaborative framework to guide growth of the visitor economy, with key objectives of supporting industry recovery, building a regional brand, investing in major events and attracting investment into tourism in the Central West.	<u></u>
The Destination Pagoda Plan looks to diversify the region's visitor economy offering by positioning Lithgow as the gateway to the Gardens of Stone State Conservation Area.	<u></u>
Given Lithgow's industry specialisations, the NSW Net Zero Industry and Innovation Program will be an important input in planning for industry decarbonisation and growth.	<u></u>
The NSW Waste and Sustainable Materials Strategy looks to support the shift towards net zero through supporting innovative local actions and reducing barriers to the private sector and local government adoption of circular economy principles. Lithgow has potential to leverage its endowments to grow circular economy manufacturing and processing industries in the region.	مس
In light of a proposal for a hydro-electricity project in the region, the NSW Pumped Hydro Roadmap may play an important strategic role in Lithgow's future.	<u></u>
The draft Future Transport 2056 Central West and Orana Regional Transport Plan provides a blueprint for how Transport for NSW will respond to the transport needs of the region. Key goals include boosting alternative transport (walk, cycle, public transport) and improving access to day return services to major destinations	<u></u>
The Lithgow Active Transport Plan recognises the importance of enhancing local amenity through connectivity.	. ■ &
The Greater Sydney Water Strategy brings together the best and latest climate evidence with a wide range of tools and solutions to plan and manage the region's water needs over the next 20 years.	مس

Significant investments since 2018

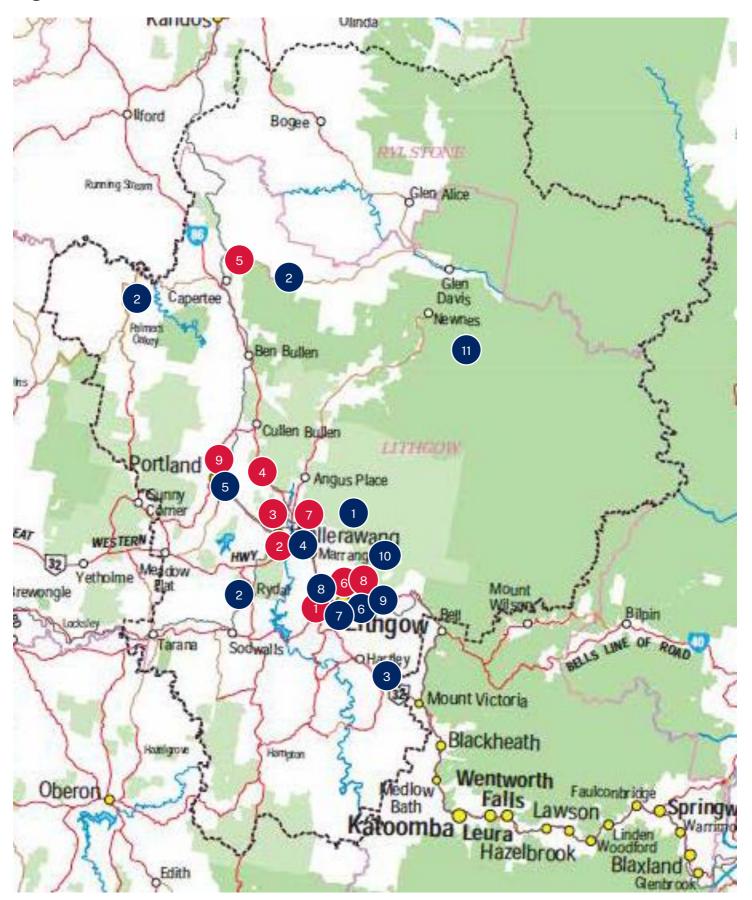


Figure 9: Map outlining significant investments in the Lithgow Functional Economic Region since 2018.

Since 2018, the region has seen significant public and private investments. These investments are at varying stages of progress, with some delivered, some underway, and some still in the planning stage. Key public investments have focused on development of the region's tourism potential, in particular the Gardens of Stone Conservation Area, as well as upgrades of transport and community infrastructure. Grant funding has played a key role in the delivery of many of these projects.

Major private investment since 2018

Inves	stment	Estimated total project value	Relevant 2018 strategies
1	Thales Lithgow Arms facility and advanced manufacturing Hub ¹	\$6.5 million	
2	Wallerawang Power Station site redevelopment (including 'Wallerawang 9' big battery)	~\$700 million	
3	Great Western Battery project	~\$400 million	<u>~</u> •
4	Mt Piper Battery project	Not Available	<u>~</u>
5	Centennial solar farm at Airly mine site	\$5 million	<u></u>
6	Maldhan Ngurr Ngurra Lithgow Transformation Hub	Not available	
7	Black Gold Motel expansion	Not available	
8	Fairview Ecoloop recycling plant	\$1.6 million	<i>∞</i>
9	The Foundations, Portland	\$5 million	

Major public investment since 2018

Inves	stment	Estimated total project value	Relevant 2018 strategies
1	Ecotourism investments including the Gardens of Stone	\$50 million	
2	Fixing Country Bridges Program - Glen Davis Rd, Rydal and Upper Turon	\$6.2 million	

¹ This project has been supported by grant funding through the NSW Government Regional job Creation Fund.

3	Great Western Highway upgrades - Katoomba to Lithgow	\$4.5 billion	<u></u>
4	Wallerawang railway station reopening	\$7 million	<u></u>
5	Portland Foundations Trunk Infrastructure	\$1.5 million	
6	Stormwater upgrades – Main Street and Cupro St intersection	\$2.2 million	
7	Lithgow Main Street revitalisation – Stage 2	~\$4 million	
8	Tony Luchetti Sportsground upgrades	\$1.83 million	
9	Zig Zag Railway restoration	~\$6 million	
10	Lithgow mountain bike transformation project	\$3.5 million	♣ .≡
11	Glow Worm Tunnel precinct upgrades	\$2.7 million	♣ .≡

Regional grant programs

The region has received \$34.33 million in grant funding since 2018. Key programs in the region have included the Stronger Country Communities Fund, with \$5.8 million committed to projects including the Lithgow Adventure Playground and the Lithgow Union Theatre upgrade.

Grant category	Approved funding
Community	\$19.21 million
Economic	\$6.42 million
Disaster recovery	\$8.7 million

Note: Total grant funding outlined above only includes programs managed by the Department of Regional NSW, accurate as at January 2023.

7. Lithgow region 2023 economic snapshot

The region faces challenges in maintaining a strong working age population base to support economic growth

The demographic profile of Lithgow's population highlights a need to focus on developing social infrastructure to support attraction and retention of people in their prime working age. Action to diversify the region's economic base will need to be supported by a focus on developing skills and workforce capability to meet the needs of emerging industries.

Population growth

Lithgow has recorded an average annual population growth rate of -0.65% between 2017 and 2021 (see Figure 10). Prior to this period, the region experienced consistent growth averaging 0.6% per year before 2016.

The closure or placing on 'care and maintenance' status of major regional employers including a number of mines and the Wallerawang Power Station is likely to have been a contributing factor in this recent trend.

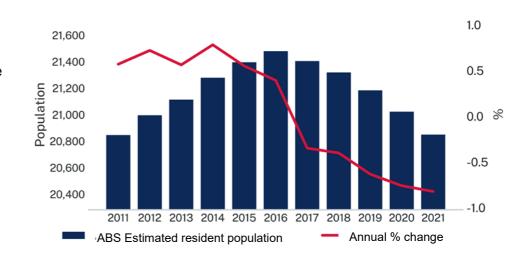


Figure 10: Lithgow FER population growth, 2011-2021 (ABS Estimated Resident Population (ERP), July 2022).

Despite this decline, the region has seen significant investment in recent years, alongside a focus to support diversification through building capabilities in emerging sectors. Given Lithgow's strong connection and proximity to Greater Western Sydney, there is significant potential for future population growth if key endowments can be leveraged and new specialisations developed.

Demographic profile

In 2021, the proportion of the region's population over 55 years old was 10% higher than the NSW average (see Figure 11). The proportion of the local population in the prime working age bracket (20 to 49) was also 8% lower than the state benchmark.

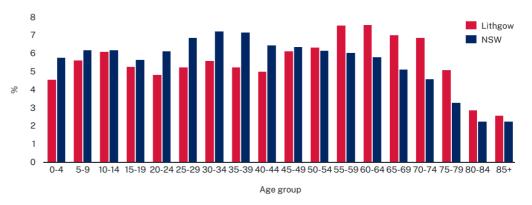


Figure 11: Lithgow FER population by age, 2021 (ABS ERP, July 2022).

This demographic profile highlights a key challenge for the region in developing and maintaining a productive local workforce to support industry growth, as well as ensuring service delivery capacity can support the demands of an ageing population. Ensuring social infrastructure is in place to increase local amenity to support worker attraction and retention will be critical in meeting this key challenge going forward.

Housing availability across the region has declined since 2018, with implications for population and workforce attraction and retention

Lithgow has faced a decline in housing availability since 2018. This compounds the challenge of the need to attract a greater population of skilled workers in the prime working age cohort, as a lack of housing availability may present a significant barrier for people looking to move to the region.

Housing availability

The residential vacancy rate in the Central West region, which incorporates Lithgow has tightened significantly since 2018, having fallen from a peak of 2.7% in 2018 to 0.7% in August 2022 (see Figure 12). Although the region has recorded negative population growth recent years, this may be reversed following the state-wide increase in migration to many parts of regional NSW since 2020. Housing vacancy fell steeply from early 2020, indicating that the region absorbed some of this migration. Building the region's housing supply will be critical in supporting future population growth and attracting skilled labour.

Dwelling approvals in the Lithgow region remained within a range of 2 to 20 approvals per month across the 2018 to 2022 period. Supporting proposals for significant residential development in the region, such as the Foundations Portland and Marangaroo Masterplan and Development Control Plan, can provide a means of increasing housing supply in the region. This can aid with attracting skilled workers from out of the region, as well as enhancing the attractiveness of its offering as a home base for remote workers.

Housing affordability

Between June 2018 and June 2022, the median house prices in the Lithgow region increased by 30%, from \$358,500 to \$467,000. [21] However, as at July 2021 the region's price-to-income ratio was 6.51, which remains well below the NSW benchmark of 8.12. [22] This indicates that while increasing prices may have reduced overall housing affordability with a larger relative impact on people on lower incomes, the region remains affordable compared to other locations. This comparative advantage may be able to be leveraged to attract skilled workers from Sydney and surrounds who are looking for a lifestyle change without losing access to the metropolitan area.

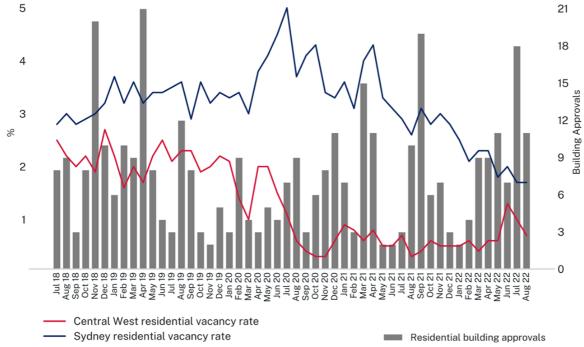


Figure 12: Lithgow FER vacancy rate and building approvals, 2018-2022 (Real Estate Institute of NSW (REINSW), 2022).

Note: REINSW vacancy data collection is not aligned with the FER boundary map, resulting in an overlap with other FERs. These results are therefore intended to provide an indication of housing vacancies in the region.

Unemployment in Lithgow has declined by almost 5% since 2018, while job vacancies in the broader region have more than doubled over the same period

While the region has recorded a steep fall in the unemployment rate since 2018, ongoing increasing job vacancies indicate a need for a continued focus on training, attracting and retaining skilled workers. This priority was highlighted in the 2018 REDS and is becoming increasingly important given the focus on developing new and emerging industry opportunities and diversifying the economy.

Employment

As at June 2022, unemployment in the Lithgow region was 3.1%, just below the NSW rate of 3.3% (see Figure 13). The unemployment rate has fallen from a high of 7.8% in December 2018, with a brief rise in late 2020 likely tied to the challenges of the COVID-19 pandemic, before continuing its downward trend to sit below the NSW benchmark.

Total job vacancies in the broader region have risen significantly since 2020, reaching an estimated 2,523 total job vacancies in August 2022, more than three times the level recorded in May 2020 (see Figure 14). Vacancies are spread across industries, however service based professions tend to display the highest rate of vacancies, with carers and aides being the area of greatest need. This may present a key challenge given likely increasing demand for health and aged care services in coming years linked to an ageing population in the region.

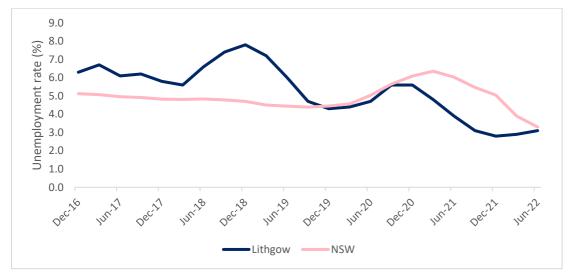


Figure 13: Lithgow unemployment rate (%), 2016-2022 (National Skills Commission, 2022; ABS Labour Force, 2022).

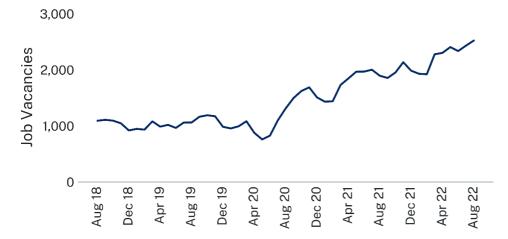


Figure 14: Job vacancies, Blue Mountains, Bathurst and Central West region (2018-2022) (Regional IVI, National Skills Commission, 2022).

Note: The regional IVI – National Skills Commission job vacancy data collection is not aligned with the FER boundary map, resulting in an overlap with other FERs. Job vacancy data only includes online job vacancies. These results are therefore intended to provide an indication of job vacancies in the region.

Aboriginal employment

Over the past decade, significant improvement has been achieved in employment outcomes for Aboriginal people in the Lithgow region. The Aboriginal unemployment rate has dropped from 18.6% in 2011 to 11.3% in 2021. However, this rate remains above the NSW Aboriginal unemployment rate of 9.8% and well above the NSW unemployment rate of 4.9%.

It is critical that a continued focus is placed on ongoing collaboration between Local Aboriginal Land Councils, traditional owners, community members, business and government to explore opportunities to support Aboriginal economic prosperity, so to ensure this positive trend can be sustained.

Aboriginal unemployment rate: Lithgow	2011	18.6%
	2016	13.1%
	2021	11.3%
NSW Aboriginal unemployment rate	2021	9.8%
NSW unemployment rate	2021	4.9%

Source: ABS Census 2021



Figure 15: Funky Friday Picnic in Queen Elizabeth Park. Photo credit: Lithgow City Council.

Lithgow 2023 engine and emerging industries

The Lithgow region has a \$1.9 billion economy. Despite significant shocks since 2018, the region's engine industries have continued to make a substantial economic contribution. The relative strength of each industry is measured using Location Quotient (LQ) analysis¹ as displayed in Figure 16, where industry size correlates with bubble size.

Engine industries

In 2020, **mining** (LQ of 9.53) accounted for 43% of local GVA amounting to \$885 million. Of this, \$871 million (98%) was attributed to coal mining. However, the region does have a sub-sector specialisation in non-metallic mineral mining (LQ of 4.2), which includes key inputs for construction materials. This may offer growth prospects to plug gaps where supply chain shortages are impacting the construction industry.

Electricity supply (including renewables production and storage) (LQ of 21.6) also represents a specialisation for the region, contributing \$73 million to GVA in 2020. Although this specialisation has historically been based on coal-fired power generation, the ongoing focus on exploring potential renewable energy opportunities, such as battery storage and pumped-hydro generation, demonstrates the sector can continue to play an important role in the Lithgow economy.

Public administration and safety (LQ of 1.33) continues to be a notable economic contributor to the region, adding \$167 million GVA to the local economy in 2020. The presence of Lithgow Correctional Centre as a major facility in the region provides a stable basis for sustained growth in this sector.

While the **manufacturing sector** has recorded a decline since 2011 in line with the broader trend across NSW, regional specialisations remain in subsectors including fabricated metals (LQ of 8.5), railway rolling stock (3.9) and cement, lime and ready-mixed concrete (LQ of 2.8), which complement the region's non-metallic mineral mining specialisation. The manufacturing sector has opportunities for future growth as demonstrated by the recent investment into the Thales advanced manufacturing hub.

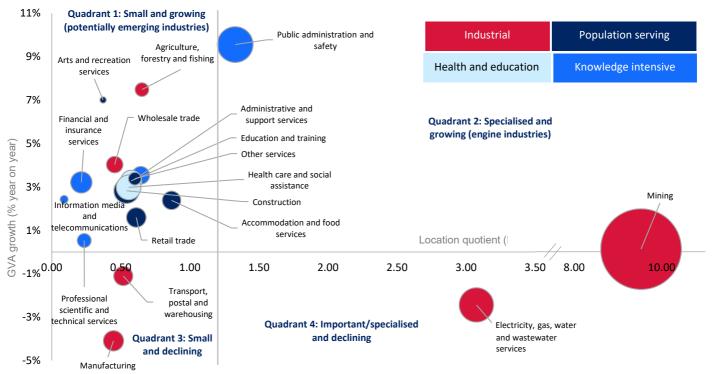


Figure 16: Location Quotient (LQ) Analysis by Gross Value Added (GVA), 2011-2020 (REMPLAN, 2020).

Note: While the 2018 REDS used employment data as the basis for LQ analysis, the 2023 Update has used GVA data. This allows for a clear demonstration of the changing economic impact of both engine and emerging industries across the regions.

¹ LQ analysis is used to measure industry specialisation by comparing the relative size of an industry in the region versus the whole of NSW.

Emerging industries

Since 2018, Lithgow has seen the arts and recreation sector and wholesale trade emerge as potential areas of growth, while construction continues to represent a potential future specialisation.

Average annual growth in the local **arts and recreation** sector has outpaced state-wide growth by 2.2% over the past decade, with the sector adding \$6 million to the local economy in 2020. Growth in this sector can also aid diversification and development of the local visitor economy, as well as supporting enhanced amenity for local residents.

The **wholesale trade industry** has also performed strongly in the region, recording 4% average annual growth between 2011 and 2020 (compared to 0.5% across NSW). The strategic location of Lithgow between Sydney (including Greater Western Sydney and the Aerotropolis under development) and the Central West, alongside access to key road and rail transport routes, offers potential for the region to develop a role as a key conduit in the import and export of goods.

The **construction** industry also shows strong growth potential for the region. Despite average annual growth between 2011 and 2020 below the NSW average, future major transport projects in the region and a skilled local mining workforce with transferable skills suggests significant scope for future growth of this \$85 million local industry. This enabling industry offers the potential to attract investment while supporting engine and emerging industries in the region.

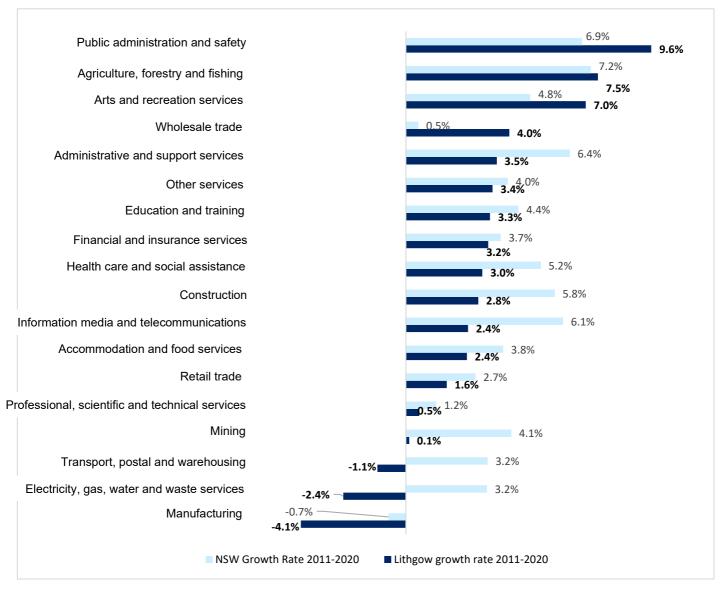


Figure 17: Change in GVA by industry (% YoY), 2011-2020 (REMPLAN, 2020).

Lithgow 2023 endowments

Review of the 2018 endowments

The 2018 REDS identified a range of endowments underpinning Lithgow's economy and regional competitiveness (see page 11). Despite recent shocks impacting many key endowments, consultation confirmed most remain valid, with key endowments including:

- Proximity to Sydney and the Central West
- Natural environment and recreational amenity
- Aboriginal and industrial heritage
- Mineral resources
- Rail, energy and education infrastructure.

New endowments

While not yet reflected in the employment and industry specialisation (LQ) analysis, recent investments and policy efforts have led to the creation of new endowments which will underpin new economic opportunities and future specialisations.

+	Maldhan Ngurr Ngurra Lithgow Transformation Hub	The Transformation Hub offers a key resource for skills development, collaboration and growth of emerging industry capabilities in the region.
+	Old Wallerawang power station site redevelopment	Redevelopment of the Wallerawang Power Station as a multi-use precinct, including large-scale energy storage capabilities, demonstrates the potential role of the region in helping to contribute to net zero.
+	Water availability	Increased capacity to support industry development as potential access to water entitlements formerly held by mines may provide access to a new, large and high-quality water resource.



Figure 18: Hassans Walls Reserve, Lithgow. Photo credit: Lithgow City Council.

8. Looking ahead: Strategic opportunities for growth, resilience and liveability

Opportunities and vulnerabilities in engine and emerging industries

Mining

The region's long standing key industry of mining continues to make a significant contribution to the regional economy, despite the challenge presented by net zero aspirations.

Gross Value Added (GVA) (2020, \$m)	885
Employment (2021)	662
Location Quotient (LQ) score (2020)	9.53
LQ coal mining (2020)	11.3
LQ non-metallic mineral mining (2020)	4.2

Strengths

- In 2020, the mining sector contributed 43% of the region's GVA with an LQ of 9.53, showing it remains a driver of economic prosperity for the Lithgow region.
- The region has access to the Western Coalfield coal seam which provides high energy thermal coal, supported by quality access to key transport routes connecting to Port Botany.
- The region also has a specialisation in non-metallic mineral mining, which contributes inputs to meet the needs of the construction industry.

Vulnerabilities

- The industry is exposed to decarbonisation and net zero targets. Three major coal mining operations in the region fuel the Mount Piper Power Station, which is set to close by 2040.
- As at 2020, 98% of the region's GVA associated with the mining industry was related to coal mining. This concentration presents a key economic vulnerability for the region.

- A future opportunity associated with the coal mining includes the repurposing of land and infrastructure, alongside alternative uses for underutilised water entitlements. The Centennial solar farm at the former Airly mine site provides a clear example of the potential to leverage existing sites to support emerging industry development in the region.
- There may be opportunities for parts of the skilled workforce to support growth in emerging industries, such as renewable energy production and storage, or circular economy processes.
- Retraining the local mining workforce in areas with complementary skill sets can aid in diversifying and strengthening the local economy. The Maldhan Ngurr Ngurra Lithgow Transformation Hub may facilitate this opportunity.
- The potential to repurpose underutilised water entitlements to ensure water security for communities and industries can be explored in consultation with stakeholders, with key considerations including how water entitlements can be used to support the Lithgow region as well as neighbouring region.

Energy supply (including renewables)

Energy supply powered by coal fired generation has been a long standing specialisation in the region, and existing infrastructure associated with this specialisation can aid economic diversification and future growth in emerging sectors, such as renewable energy generation and storage.

GVA (2020, \$m)	143
Employment (2021)	274
LQ score (2020)	3.07
LQ electricity distribution (2020)	2.4
LQ electricity generation (2020)	21.6

Strengths

- The Lithgow region is home to the Mount Piper Power Station.
- Existing energy infrastructure in the region which has supported coal-fired power generation
 provides a key endowment that can be leveraged to support future industry growth and economic
 diversification in the region.

Vulnerabilities

- The Mount Piper Power Station is due to cease operation by 2040 at the latest, presenting a challenge for the region in repurposing this infrastructure and supporting new employment opportunities for the impacted workforce.
- Successive natural disasters since 2018, including bushfires and floods demonstrate the vulnerability
 of the region to these events, including through damage to energy infrastructure and/or interruptions
 to key supply chains.

- Renewable energy generation and storage is a potential emerging strength in the region, which can leverage the existing electricity network infrastructure associated with coal power generation.
- Reuse of the Mount Piper Power Station post-closure represents a major opportunity to support economic diversification for the region. The proposed redevelopment of the power station as a multi-use precinct demonstrates this potential, as do the proposals to redevelop the former Wallerawang Power Station site, which includes a network scale battery.
- Increased availability of secure renewable energy sources in the region can present opportunities to support sustainable economic growth in other industries with high energy requirements including manufacturing.

Tourism

With a range of unique natural endowments, good quality transport connections to major population centres and the recent significant investment to establish a major ecotourism destination around the iconic Gardens of Stone Conservation Area, there is potential for future growth in the Lithgow visitor economy.

Visitor spend (2021, \$m) ^[23]	72
Employment (2021) ^a	1,536
LQ score (2020) ^b	0.87
LQ accommodation (2020)	1.6
LQ food services (2020)	0.7

a Summation of ANZSIC 1 digit Retail trade, Accommodation and food services, Arts and recreation services. b LQ score is for the Accommodation and food services industry.

Strengths

- The Lithgow region has a range of natural endowments including national and state parks that
 include iconic sites such as the Garden of Stone Conservation Area, which support significant nature
 based tourism in the region.
- Lithgow is well-connected to Sydney by road and rail, providing a strong competitive advantage in attracting short-stay visitors seeking a convenient escape from the metropolis. A fast-growing population in Greater Western Sydney provides a growing market.
- The region has a diverse tourism offering, with Aboriginal and industrial heritage sites complementing its natural tourism attractions, and its proximity to the attractions of the broader Blue Mountains region also represents a key strength.
- Proactive stakeholders in the region are working towards developing the region's arts and cultural sector, which can help expand the overall visitor economy offering.

Vulnerabilities

- Externalities strongly influence industry performance. This was demonstrated by the impacts of COVID-19 restrictions, which saw visitation and visitor spend drop by 52% and 35% respectively between 2019 and 2020.^[23]
- The increasing frequency of natural disaster events may threaten the viability and attractiveness of key regional destinations, including parks and reserves.

- Leveraging recent investment and strategic focus on ecotourism, particularly around the Gardens of Stone Conservation Area provides a key opportunity for growth of the region's ecotourism offering.
- Strong growth in the arts and recreation sector demonstrates regional capabilities to grow the festival and events space.
- The Western Sydney International Airport will, over the medium- to long-term, provide increased access to the region for the higher value international visitor market.

Manufacturing

While the manufacturing sector in the region has recorded a decline since 2011 in line with a broader trend across NSW, opportunity exists to leverage the region's endowments and well developed industry capabilities to support future growth in advanced manufacturing and export focused manufacturing.

GVA (2020, \$m)	55
Employment (2021)	410
LQ score (2020)	0.45
LQ cement and concrete (2020)	2.8
LQ fabricated metal (2020)	8.5

Strengths

- The region has manufacturing specialisations in subsectors including fabricated metals (LQ of 8.5)
 and cement and concrete (LQ of 2.8). These sub-sector specialisations in part draw on local raw
 outputs, such as from the region's specialisation in non-metallic mineral mining.
- Lithgow has good access to NSW's key regional primary production regions as well as the major market of Greater Sydney, and has well developed transport linkages by road and rail including to Port Botany.
- Lithgow has received significant investment associated with development of advanced manufacturing capability in the region, through the development of the Thales Lithgow Arms Facility and advanced manufacturing Hub.

Vulnerabilities

- The manufacturing sector in Lithgow has seen a 4.1% decline in GVA between 2011 and 2020, reflecting a decline seen more broadly across Australia. This highlights a need for a focused investment and policy strategy if the region is to leverage its strengths to deliver future growth.
- Global supply chain challenges may present significant difficulties associated with sourcing key inputs to support manufacturing activity.

- Leveraging major recent investment to develop advanced manufacturing capabilities, alongside supporting innovation and entrepreneurship through the Maldhan Ngurr Ngurra Lithgow Transformation Hub can support further growth potential.
- The region's strong transport links, infrastructure and sites available for repurposing, and proximity to large populations offers an opportunity to pursue circular economy processing opportunities, as demonstrated by the Fairview Ecoloop development.
- Lithgow has seen significant growth in wholesale trade over the past decade. Collaboration between these operators and local manufacturing could develop the ability for the region to act as a logistics hub and conduit between Sydney (including the Western Sydney Aerotropolis) and regional NSW.

Key themes in stakeholder consultation

Stakeholders from the Lithgow region noted that the region is facing both opportunities and challenges related to the changing economic landscape, with the accelerating shift away from coal-powered energy generation bringing the need for action to achieve industry and economic diversification to the fore.

A changing local economic landscape

The Lithgow region is facing significant changes in its economic landscape, with the planned closure of major local mining operations and the end of local coal fired power generation by 2040. Strategic initiatives such as the Lithgow Emerging Economy Project were highlighted as key to guiding action to promote economic diversification and improve economic resilience.

Unlocking growth potential

Stakeholders highlighted the need to facilitate the release and activation of residential and employment lands to enable population and economic growth. Repurposing of existing infrastructure and major former industrial sites was highlighted as a key opportunity for the region, with the former Wallerawang Power Station site redevelopment highlighted as an example of how this can support future growth.

Growing emerging capabilities

The Lithgow region has seen significant investment in emerging industry opportunities including renewable energy generation and storage, circular economy processes and advanced manufacturing, which are all potential growth sectors that can support economic diversification. Stakeholders also highlighted the region's significant natural tourism endowments, which when combined with major investment into developing ecotourism presents a key opportunity to support ongoing growth.

Lithgow REDS - 2023 Update strategies

While the 2018 strategies remain relevant to the region, stakeholders highlighted the need to ensure the strategies directly respond to challenges and opportunities related to economic diversification. Key changes made to reflect the updated economic context for the Lithgow region include:

- · highlighting emerging industries in the region as investment priorities,
- creating a focus on the need to cultivate a local culture of entrepreneurship and innovation,
- lifting the labour force strategy from the business to industry level, and recognising the potential to adapt existing labour force capability to meet future needs,
- combining the strategy centred on developing a vibrant community with the key need to prioritise lifestyle infrastructure that supports local placing-making and population growth, and
- introducing a new strategy prioritising developing the local visitor economy.

Reflecting the changes outlined above, the 2023 REDS Update strategies for the Lithgow region are listed below (amendments made to existing 2018 strategies are highlighted in **bold**):

Amended	Drive local capability and attract investment in emerging industries including renewable energy, circular economy processes, and advanced manufacturing.
Amended	Activate and cultivate a local culture of entrepreneurship and innovation.
Amended	Create and adapt labour force capability in line with future industry needs .

Amended	Prioritise lifestyle infrastructure and local place-making to create a vibrant community which supports population growth.
New	Develop a diverse and collaborative visitor economy.

Key enablers of economic growth

A number of key enablers have been identified to assist with delivering each of the strategies. This list is non-exhaustive, with a focus on identifying priority short- to medium-term enablers. Responsibility for implementation of these enablers sits with various levels of government, and in some cases may also include business, industry or non-government bodies. Collaboration across these entities at a local level will be key to achieving results.

Strategy	New enablers		Lead and support	Rationale
Drive local capability and attract investment in emerging industries including renewable energy, circular economy processes, and advanced manufacturing.	Infrastructure / Land use	Undertake precinct planning to support growth in emerging industries as part of the region's long term economic diversification, identifying opportunities to repurpose underutilised land, water entitlements and infrastructure.	Department of Regional NSW (DRNSW), Lithgow City Council, Department of Planning and Environment (DPE), Lithgow District Chamber of Commerce (LDCC), industry stakeholders, Central West Royalties for Rejuvenation (RfR) Expert Panel.	Specialisations in mining and energy generation and transmission offer potential to create a new specialisation that contributes to decarbonisation.
	Government, regulation and information	Investigate and effectively communicate with the community about the likely impacts of and opportunities presented by economic diversification, as a mechanism for building social licence and	DRNSW, DPE, Lithgow City Council, LDCC, Central West RfR Expert Panel.	Developing local understanding of the outcomes of economic diversification will aid in retaining the local workforce and assist businesses to

Strategy	New enablers		Lead and support	Rationale
		increasing support for change in the region.		plan for the future.
	Government, regulation and information	Utilise expert panels under the Royalties for Rejuvenation Fund to examine options to support economic diversification, including by funding infrastructure, services, programs and other activities.	DRNSW, Lithgow City Council.	Leverage the work being undertaken under the Royalties for Rejuvenation Fund to support economic diversification in the region.
Activate and cultivate a local culture of entrepreneurship and innovation.	Government, regulation and information	Collaborate with Greater Western Sydney and Aerotropolis stakeholders to identify opportunities for growth in manufacturing, wholesale trade, logistics and tourism.	Lithgow City Council, DPE, Western Parkland City Authority, DRNSW, LDCC, Regional Development Australia (RDA) Central West.	Connections to Great Western Sydney (GWS) provide Lithgow with an opportunity to grow in industries which can serve this growing population.
	Government, regulation and information	Identify opportunities to support the creation and growth of new Small and Medium Enterprises (SMEs), with a particular focus on knowledge-intensive, creative and service-based sectors.	Lithgow City Council, DRNSW, NSW Small Business Commissioner, LDCC, Western Sydney University (WSU), Central West RfR Expert Panel.	Stakeholders identified enhancing the culture of enterprise as a key factor in diversifying the regional economic base.
Create and adapt labour force capability in line with future industry needs.	People and skills	Leverage the Maldhan Ngurr Ngurra Lithgow Transformation Hub to develop upskilling and reskilling programs and support the adaptive capacity of the emerging regional	Training Services NSW, WSU, DRNSW, Lithgow City Council, Registered Training	The region's mining and coal-based energy supply workforce possess a skillset which may be

Strategy	New enablers		Lead and support	Rationale
		workforce, including through strengthening STEM outcomes in regional schools.	Organisations, TAFE NSW.	transferrable to other industries to facilitate economic diversification and growth.
Prioritise lifestyle infrastructure and local place- making to create a vibrant community which supports population growth.	Land use	Investigate opportunities for high-quality residential and employment land release across the region, including (but not limited to) potential growth areas identified in the Marrangaroo Masterplan and Development Control Plan.	Lithgow City Council, DPE.	Additional housing supply is needed to enable population growth, with several sites having significant potential if activated.
Develop a diverse and collaborative visitor economy offering.	Infrastructure	Develop the region's tourism infrastructure to support growth of its ecotourism offering, leveraging key endowments including the Gardens of Stone Conservation Area.	Lithgow City Council, DRNSW, Destination NSW, Training Services NSW.	Recent NSW Government investment in ecotourism in the region can be leveraged to diversify and strengthen Lithgow's visitor economy offering.
	Government, regulation and information	Facilitate the creation and growth of festivals and events in the region, with a focus on developing local workforce visitor economy capabilities and enhancing endowments in arts, cultural and recreational offerings.	Lithgow City Council, DRNSW, Create NSW, Regional Arts Development Organisations, Destination NSW.	Lithgow's arts and recreation sector has seen strong growth over the past decade and may be leveraged to develop in the events space.

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Figure 19: Gardens of Stone National Park, Blue Mountains. Photo credit: Destination NSW.