

FINAL REPORT

LISMORE FLOODING IMPACTS & RECOVERY STATEMENT

JULY 2022



Report Prepared
for Lismore City
Council



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Executive Summary

THE NORTHERN RIVERS & THE 2022 FLOODS

The Northern Rivers region spans seven local government areas, from Tweed Shire at the Queensland border in the north, to Clarence Valley in the south. The total population of these communities exceeds 310,000.

Lismore City is a community of more than 44,000 people, sitting at the centre of the Northern Rivers' very large population base and extensive labour pool. This has made Lismore a natural choice as a regional centre & service hub.

However, the same geography which positions Lismore City so well, socially & economically, also saw it bear the worst of the Northern Rivers' extreme floods of February & March 2022. Residents did not face floods like those they knew before, nor even those they might have heard about from their parents & grandparents - the 2022 floods were more than 2 metres above the 1-in-100-year levels even the record inundations of 1954 & 1974 failed to meet.

FLOODING IMPACTS ON LISMORE'S RESIDENTS, BUSINESSES & ASSETS

Extreme floodwaters brought many & varied traumatic impacts to Lismore.

Most tragically, four people perished in the February floods, with another life lost in March. Many other residents faced risks to life as extensive damages were wrought to their residences. From a business perspective, 3,170 Lismore firms were impacted, out of a total of 4,145 firms, also affecting 18,000 workers across the area.

Suburbs like Lismore, South Lismore & North Lismore, reflected in the map on the next page, saw the greatest impacts due to their proximity to Wilsons River. Prior to the floods:

- Lismore housed 3,650 people in 1,450 occupied private dwellings
- South Lismore housed 1,775 people in 675 occupied private dwellings
- North Lismore housed 750 people in 300 occupied private dwellings.

Beyond these immediate physical risks & consequences, the trauma of lives, homes & businesses lost, threat & fear of loss & uncertainty of recovery & return to normalcy has taken an enormous mental toll on Lismore's residents.

2021-22 & 2022-23 PRODUCTION LOSSES IN LISMORE'S ECONOMY FROM FLOOD IMPACTS



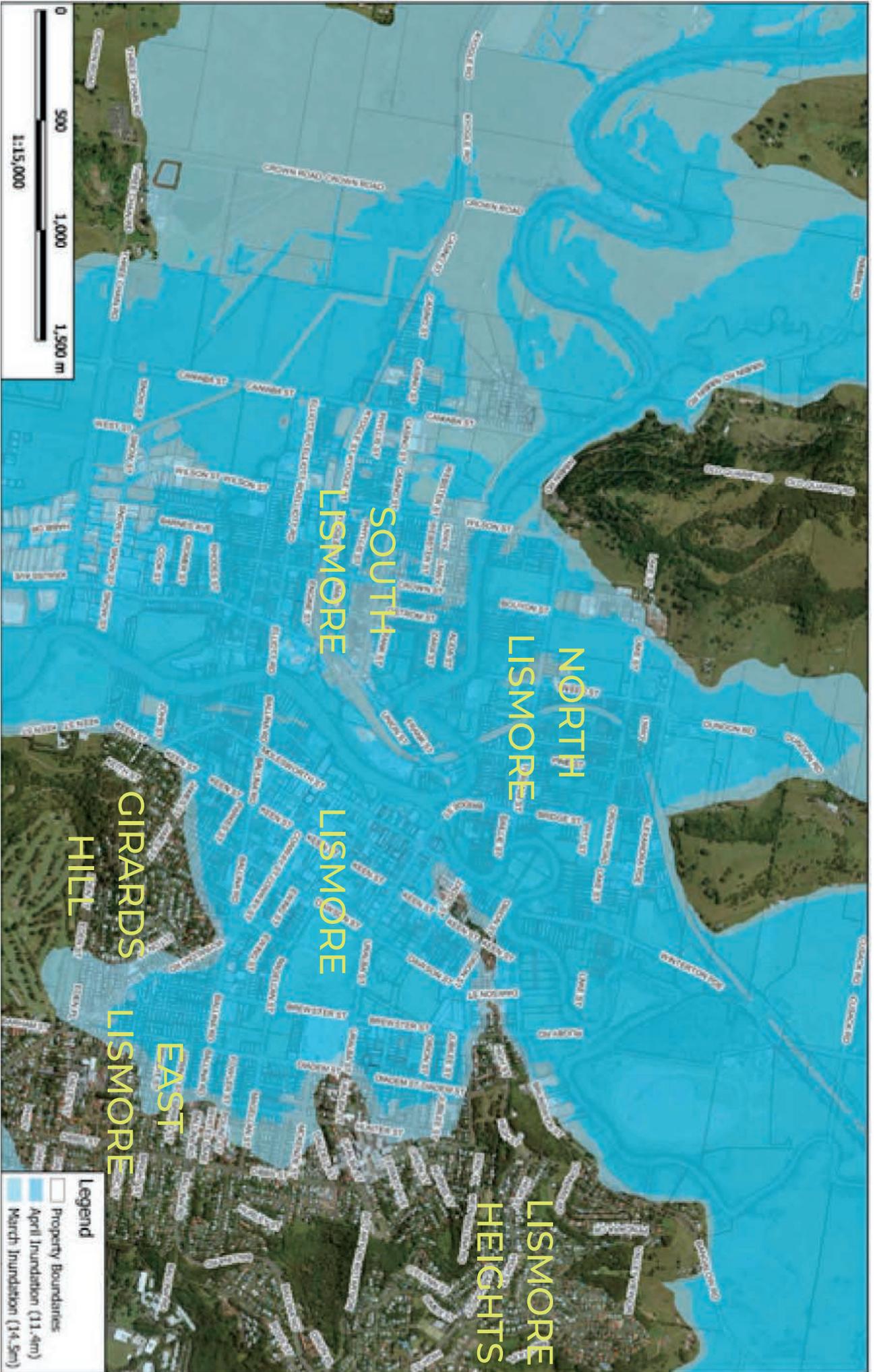
+\$400 million of lost production across Lismore's economy



Production losses of \$9,300 per resident (on top of asset replacement & repair costs)



Direct impacts on 3,170 firms & 18,000 workers (4,145 firms in total)



Asset losses across the community have been widespread, with damage to:

- housing
- the CBD
- industrial & agricultural property
- machinery & equipment
- vehicles
- critical community infrastructure.

Total asset damages run into several billions of dollars, and are only partly insured.

LOSSES OF ECONOMIC PRODUCTION

On top of the asset losses and personal stresses, Lismore City also faces significant losses of economic production and income in its \$2.5 billion economy – reducing the capacity of households & businesses to finance those repairs or replacements of assets that were uninsured.

Sea & Star Advisory's analysis suggests Lismore's losses of production will total \$409 million in the 2021-22 and 2022-23 financial years.

These losses stem from several sources. The seven factors captured in the infographic on the next page reflect the major impacts, while the table on the following page reflects how & for how long, the impact is likely to filter through the economy.

Put another way: Lismore's production in the 16 months to the end of June 2023 is projected to be 15 per cent below what a 'no floods' baseline would have been. These production losses are equivalent to more than \$9,300 per resident, on top of the asset losses & damages themselves.

Together, lost production across the Retail Trade, Education & Training and Health Care & Social Assistance sectors accounts for more than 60 per cent of all losses across the local economy.

A steady, medium-term recovery in Lismore can be achieved, although it will depend on many factors. Two of the most critical success factors are: restoring confidence in Lismore City's future and rapid expansion of capacity in the construction sector.

NEGATIVE IMPACTS ON THE LISMORE ECONOMY



Uncertainty, Uninsurable

Risks & Lost Confidence

Businesses face uncertainties about government support, risks they can't shift, labour supply & consumer behaviour that undermine their own confidence.

Asset Damages

Flooding has led to significant business asset damage, impairing Lismore's productive potential.



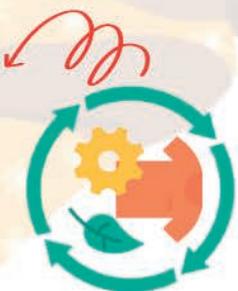
Clean Up Disruptions

In the early days of recovery, house & home took priority, cutting production.



Lost Labour Force

Some households & workers have relocated for good, reducing Lismore's productive potential.



Reduced Consumption

Direct impacts on production will tend to lead to lower household incomes for worker, who are likely to reduce non-essential consumption to conserve wealth.



Fragmented Supply Chain

Flooding disrupted the local supply chain, posing the risk local suppliers may be permanently displaced.



Deferred or Lost Developments and Expansions

The crisis conditions of the floods & their impacts on local confidence and demand come at the cost of deferred expansion or development projects.

IMPACT	TIME PERIOD	INCIDENCE	UNCERTAINTIES
Uncertainty & Lost Confidence	Immediate to Potentially Long Term	Supply Side & Demand Side	Source & timing of actions restoring confidence
Asset Damage	Immediate to Medium Term	Supply Side	Rate at which assets can be replaced
Clean Up Disruptions	Short Term Only	Supply Side	N/A
Lost Labour Force	Short to Potentially Long Term	Supply Side	Replenishment of housing stock terms of buy backs
Reduced Consumption	Short to Potentially Long Term	Demand Side	Extent of population losses & consumer confidence impacts
Fragmented Supply Chain	Short to Potentially Long Term	Supply Side	Length of supply contracts local reinvestment decisions
Deferred or Lost Expansion	Short to Potentially Long Term	Supply Side	Financing costs & perceptions of local resources & demand

COMPLEX CAUSES OF LOST CONFIDENCE

Among the many consequences of the flood, perhaps the most pervasive impacts relate to lost confidence & uncertainty. This upended a prior broad-based rising sense of confidence in Lismore's prospects.

The rapid compounding of the two disasters, and threats of further disaster or delay in recovery, continues to linger over the region. **Unless & until lost confidence is restored, recovery can only be partial, at best.**

Lismore's lost confidence is a complex, collective problem for its community, not easily set right again. Lismore's lost confidence relates to two floods, and an abundance of issues stemming from them:

1. the immediate emotional trauma, with ongoing knock-on effects on morale & well-being
2. the compounding impacts of two successive, statistically-rare floods on perceptions of risks of recurrence
3. hits to household "balance sheets", with many uninhabitable homes uninsured
4. uninsured losses for business & ongoing limitations in labour supply that continue to impact production
5. 'market failure externalities', from each resident or business relying on others for demand, income, or labour, yet unsure those others will remain in place
6. the need for integrated land-use & infrastructure planning to secure new housing & job precincts quickly
7. limitations in local capability & financial capacity to implement an integrated solution.

CONSTRUCTION'S CENTRAL ROLE IN RECOVERY

With so many homes, businesses & critical assets damaged, the Northern Rivers' \$1.3 billion construction sector and its workforce of 7,000 is critical to the region's recovery effort. However, construction demand is well beyond the immediate capacity of industry to deliver, requiring a significant expansion of capacity.

Housing construction is the most critical construction need of the region, given the large-scale dislocation of residents caused by the flood. In Lismore alone, more than 1,500 homes suffered moderate to severe damages, or were destroyed.

Current constraints in industry's capacity are likely to slow the rate of recovery. Recent rates of housing completions in Lismore have averaged about 60 dwellings a year. Put in practical terms: the number of homes rendered unusable by the floods is about 25 times higher typical completions over the past five years.

To speed its housing recovery, Lismore needs to contain costs and encourage new entrants to its construction market from across the region and beyond. Lismore has markedly fewer construction businesses than Clarence Valley, Byron and Ballina, despite having a larger population than those localities, while Tweed Shire has both a larger population base than Lismore and a markedly larger construction sector.

THE ROADMAP TO RECOVERY

If Lismore lacks for conviction and a clear & confidence-building sense of direction, Lismore's future prospects are at risk of withering away. Resolute leadership, recognising and addressing the multiple underlying problems, is required to restore certainty in Lismore.

An appropriate solution cannot be found without State & Federal support & intervention. The Northern Rivers Reconstruction Corporation can offer the direction & support necessary if it offers the integrated planning, reconstruction & reactivation solutions intended by its legislation.

A further five factors will be critical to putting an effective recovery in place, swiftly:

1. depopulate high-risk areas & mitigate impacts for remaining residents
2. protect Lismore's centre & support development of a new commercial centre in the medium term
3. establish new residential housing supply & jobs precincts, including re-purposing potential publicly-owned suitable sites
4. provide critical enabling infrastructure & services to underpin new supply
5. consider ways of enhancing local participation in the necessary boom in re-construction.



1: Introduction

1.1 ABOUT THIS REPORT

Sea & Star Advisory has been commissioned by Lismore City Council to prepare this economic impact statement. The broad objectives of this Report are to introduce & evaluate:

- the economic impacts & implications of the floods on the local economy
- the pressing flood recovery needs of Lismore City's communities & economy.

1.2 METHODOLOGY

The methodology informing this Report's assessment of impacts reflects a six-step approach:

- reviewing the key structural characteristics of Lismore City's communities & economy
- evaluating the likely impacts of flooding on the communities & economy
- reviewing survey information provided by the area's businesses
- interviewing key stakeholders across the area, including major employers
- modelling economic impacts to reflect the advice of businesses & stakeholders
- assessment of critical needs for effective recovery & priority actions to respond to these needs.

1.3 STRUCTURE OF THIS REPORT

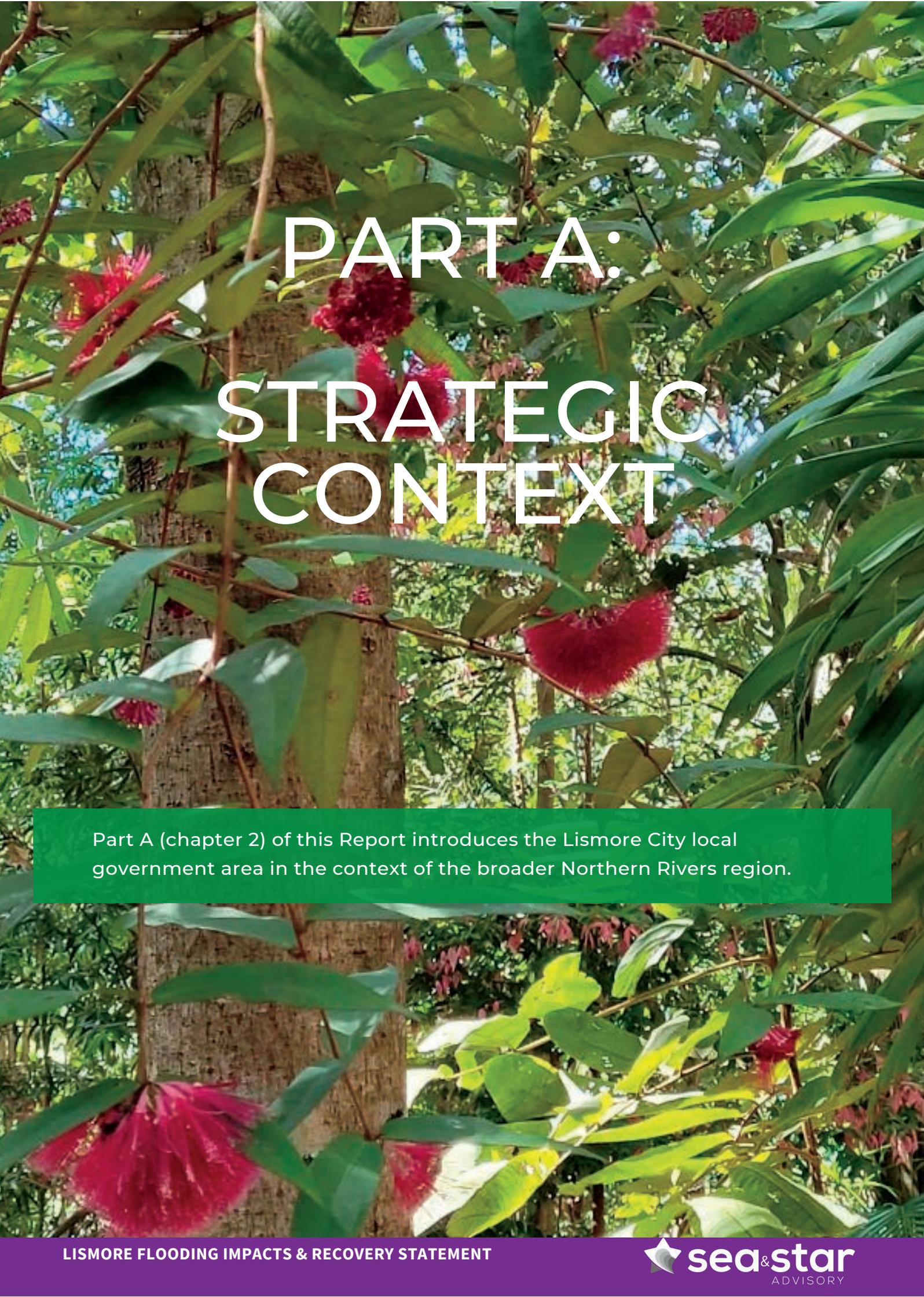
This Report is structured as follows:

- **Part A (chapter 2)** offers context on the Lismore City area, the Northern Rivers region & Lismore economy
- **Part B (chapters 3 & 4)** describes the extreme rainfall patterns & associated flooding of February & March 2022, together with the community impacts
- **Part C (chapters 5 & 6)** describes the types of flood impacts across the economy and provides a projection of impacts on Lismore's economy
- **Part D (chapters 7 & 8)** describes Lismore's critical need for certainty and complementary actions to ensure the community enjoys an effective recovery.

1.4 QUALIFICATIONS

This assessment has been developed at a relatively early stage of flood recovery. Many important considerations are preliminary, unknown or unresolved at the time of writing this report. With only limited information on policies and impacts available at the time of writing.

The evaluations & projections in this Report should be interpreted as subject to the material developments expected in the coming months.



PART A: STRATEGIC CONTEXT

Part A (chapter 2) of this Report introduces the Lismore City local government area in the context of the broader Northern Rivers region.

2: Lismore, the Northern Rivers & the Regional Economy

2.1 THE LISMORE REGION

The Lismore City local government area, or Lismore Region, is located in the hinterland of NSW's far north coast.

Lismore City's boundaries span almost 1,300 square kilometres, and are home to more than 44,000 people.

Lismore City's geography takes in the native lands of the Widjabul people, a tribe of the Bundjalung nation. The terrain features both extensive ranges in the north & floodplains in its south, with Nightcap National Park's world heritage listed Gwondana rainforests a defining environmental feature.

The Lismore Region's central point of environmental reference is the Wilsons-Richmond River system. Wilsons River rises in Nightcap National Park, flows on through Lismore City, where it meets Leycester Creek, before becoming a tributary of the Richmond River close to Coraki.

2.2 LISMORE REGION'S MAJOR CENTRES

Lismore Region's major centres are:

- **Lismore City** urban area, with almost 29,000 people (15,200 in Lismore proper, 13,600 in Goonellabah)

- Nimbin, home to 1,600 people
- Clunes, home to 900 people
- Dunoon, home to 850 people
- Caniaba, home to 800 people
- Bexhill, home to 525 people
- Wyrallah, home to 500 people
- The Channon, home to 325 people.

The distribution of these localities across the Lismore City area is depicted in Figure 2.1 on the next page.

2.3 LISMORE CITY'S SUBURBS

Lismore City & Goonellabah form an integrated urban area home to the majority of the local government area's population & economic base.

Goonellabah lies to the east of Lismore, and is largely situated on a ridgeline. Goonellabah is home to the seat of government for Lismore City Council, many residential areas and a major retail shopping precinct.

To its west, and below the ridgeline is Lismore proper. As for the local government area overall, Wilsons River is a key point of context in understanding the suburbs of Lismore.

Figure 2.2 reflects the major suburbs & localities of the Lismore urban area.

FIGURE 2.1: LOCALITIES OF LISMORE REGION



Source: Lismore City Council Local Strategic Planning Statement

The main suburbs & localities of Lismore proper and surrounds are:

- East Lismore (4,980 people, 1,950 occupied private dwellings). East Lismore takes in the University Campus, St Vincents Private Hospital & stretches all the way west to front the Wilsons River
- Lismore (3,650 people, 1,450 occupied private dwellings). This area includes major employment areas like Molesworth St & the CBD, Shopping Square & Base Hospital
- Lismore Heights (2,125 people, 925 occupied private dwellings)
- South Lismore (1,775 people, 675 occupied private dwellings). South Lismore immediately adjoins both Wilsons River & Leycester Creek. The Union St & Casino St precincts and surrounds provide a large part of Lismore's big box retail & industrial base, including Harvey Norman & Norco's ice cream plant
- Girards Hill (1,325 people, 600 occupied private dwellings)
- North Lismore (750 people, 300 occupied private dwellings)
- Loftville (265 people, 179 occupied private dwellings)
- Monaltrie (235 people, 85 occupied private dwellings).

2.4 THE NORTHERN RIVERS

The Lismore City area is situated in a broader region, the Northern Rivers. Use of this label varies, but the Northern Rivers is best thought of as localities spanning the Tweed, Richmond & Clarence Valley catchments on the far north coast of NSW.

In total, the Northern Rivers spans seven local government areas, from Tweed Shire at the Queensland border in the north, to Clarence Valley in the south. The total population across these communities exceeds 310,000.

Geographically, this positions Lismore at the centre of a very large population base and an extensive labour pool. This has made Lismore a natural choice for a regional centre & service hub for the broader region.

2.5 LISMORE'S ECONOMIC PROFILE

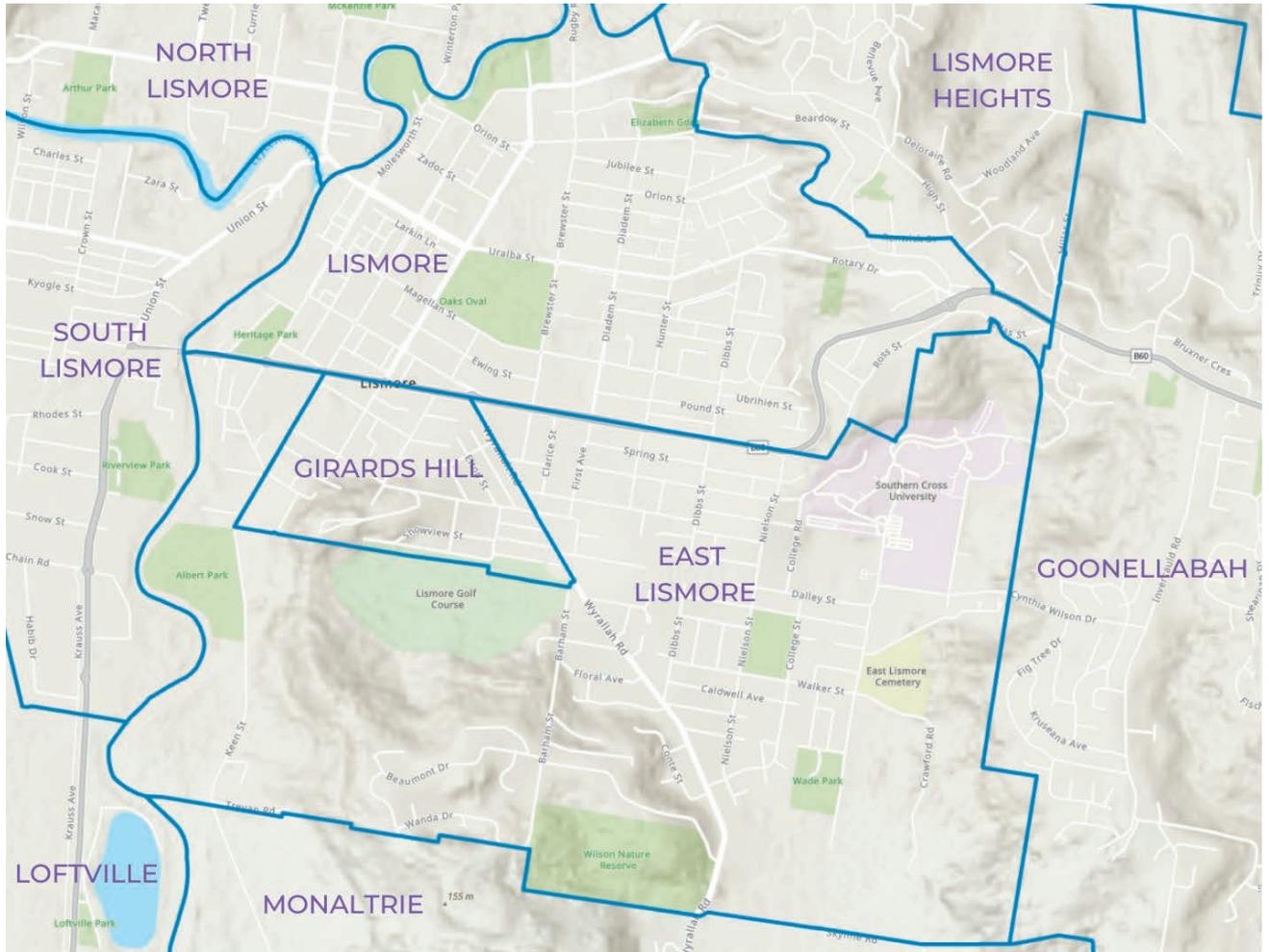
Relative to the structure of NSW's economy, Lismore's economy strongly emphasises industries like health care, education, retail & agriculture. These advantages are consistent with its large population, significant natural assets & leading role in the broader Northern Rivers region.

Figure 2.3 reflects that Lismore City's value of regional production prior to the floods approached \$2.5 billion a year. Notably, the value of output has seen little increase in real terms over the 15 years to 2020-21.

While many factors inform variations in Lismore's economic production over time, two major elements are:

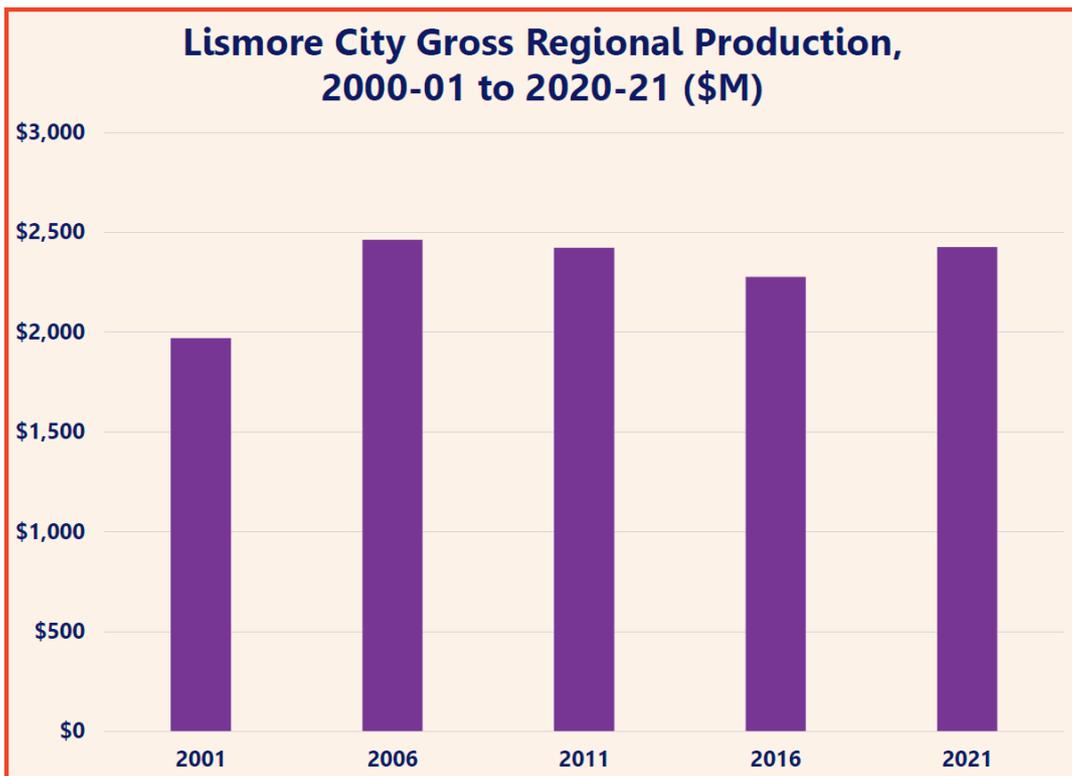
- variation in the local population base, which expanded & contracted significantly over that period
- the worsening of the millennium drought & subsequent droughts and their knock-on impact on production & regional productive capacity.

FIGURE 2.2: LISMORE CITY'S KEY CENTRAL SUBURBS



Source: Image adapted by Sea & Star Advisory from ABS Maps

FIGURE 2.3: LISMORE CITY ECONOMIC OUTPUT, 2000-01 TO 2020-21



Source: Sea & Star Advisory Analysis of NIEIR Estimates Produced for .ID



PART B: THE 2022 FLOODS & THEIR IMPACTS

Part B (chapters 3 & 4) of this Report:

- provides an overview of the scale & intensity of the rainfall & flooding events endured by Lismore
- describes the impacts of flooding on the Lismore community.



3: The 2022 Floods

The floods of late February & late March 2022 that devastated the Northern Rivers reflect an unprecedented interaction between the region's rainfall & geographic catchment.

Lismore has long featured floods, and its residents live anticipating Wilsons River inundations. However, what has come to bear down on the community this year is unprecedented in either living memory or recorded history.

3.1 SCALE OF 2022 RAINFALL

January, February & March are typically the peak rainfall months for Lismore.

Figure 3.1 reflects Lismore has yielded average monthly rainfall of about 150 mm or more in these first three months in recent decades. Average falls were slightly higher again between the second world war and the turn of the century.

A wet end to Summer & beginning of Autumn is very typical for Lismore:

- on average, about half a metre of rain comes in the first three months of the year - or close to 40 per cent of the annual total
- approaching 30 per cent of Lismore's rain typically comes in February & March.

2022's lead-in was relatively wet, so soils were already moist & water tables high:

- rainfalls across Northern Rivers catchments in the 12 months to the end of January 2022 ranged from average to well above average
- Lismore's rainfalls for each of October, November, December & January were between 12 & 62 per cent higher than monthly averages.

But even this context paled against the rain to come. Figure 3.2 reflects:

- the vast majority of the Lismore Region saw rainfall in excess of 800 mm in February 2022
- most of Richmond River catchment saw monthly falls above 600 mm.

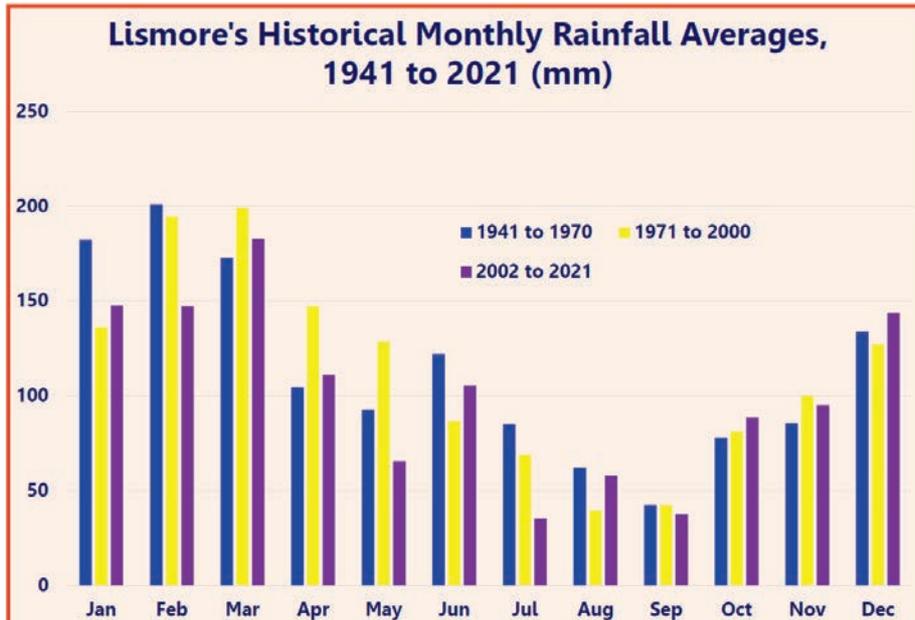
Lismore's rainfalls above 800 mm are:

- more than five times the February average for the past two decades
- more than three times greater than a 'once a decade' monthly rainfall.

The rains were not a steady fall - 17 February days were dry or below 2 mm - but rather intense, concentrated bursts:

- the Lismore Airport gauge set its monthly record on the 24th, before being flooded itself on the 28th
- the Bureau of Meteorology records some locations as seeing an extreme 700 mm on the 28th alone.

FIGURE 3.1: LISMORE'S AVERAGE MONTHLY RAINFALL, 1941 TO 2021



Source: Sea & Star Advisory Analysis of Bureau of Meteorology data

FIGURE 3.2: FEBRUARY 2022 STATEWIDE RAINFALLS

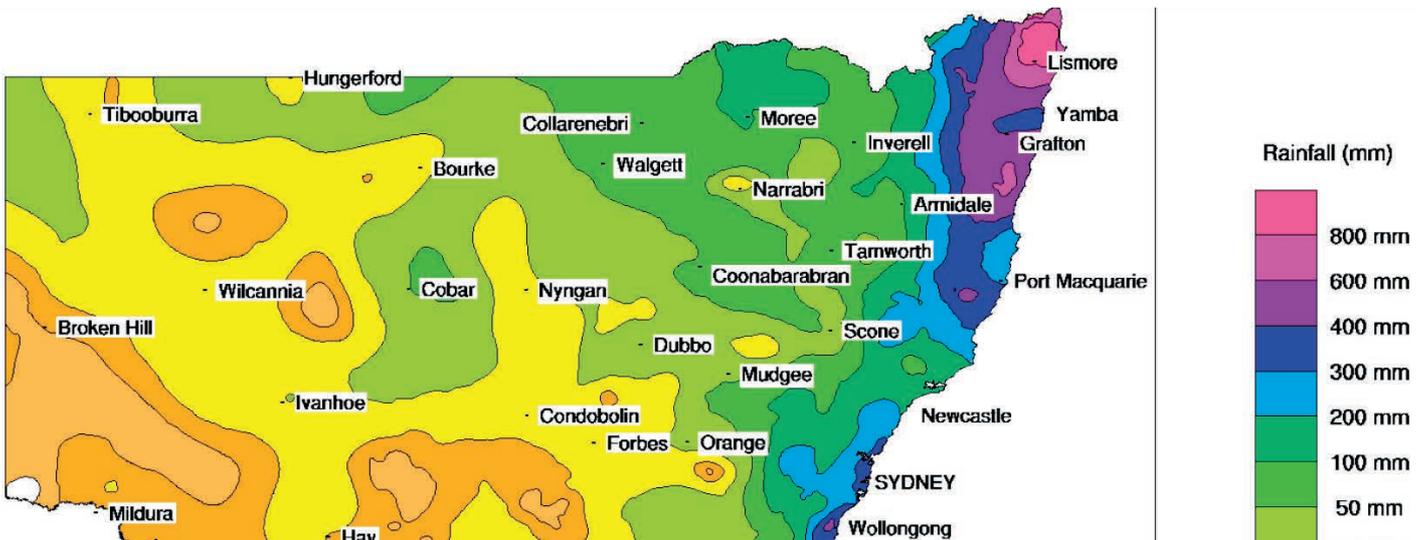
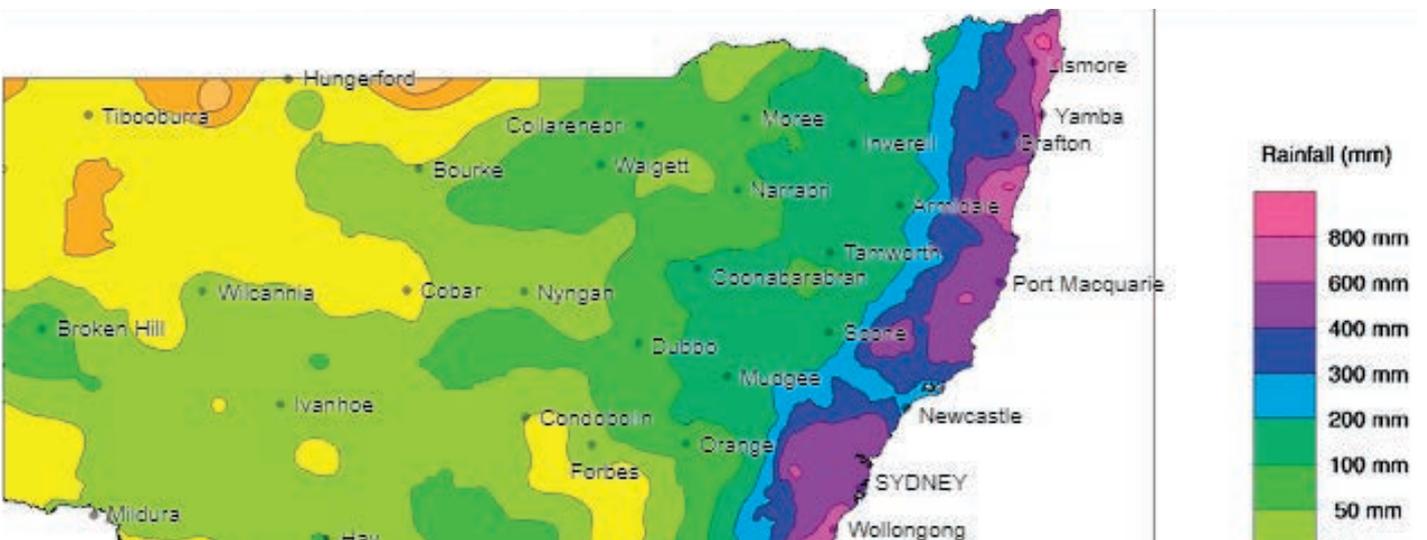


FIGURE 3.3: MARCH 2022 STATEWIDE RAINFALLS



Source: Commonwealth Government (Bureau of Meteorology)

The rains were far from done. Figure 3.3 reflects that:

- March 2022 rainfalls for most of the Northern Rivers were above 300 mm
- Lismore Region rainfalls for March were generally above 600 mm, with extreme falls above 800 mm over Nightcap National Park near the rise of Wilsons River.

3.2 LISMORE REGION FLOOD IMPACTS

Intense rains across a Richmond River catchment already soaked with months of successive months of well above-average falls primed Lismore Region communities for flooding as never seen before. Figure 3.4 reflects that:

- the geography of the Lismore Region protected its smaller northerly population centres from the worst of the inundation, whereas
- the large communities of Lismore suburbs and communities further downstream were fully exposed to environmental extremes never seen before.

3.3 FLOOD IMPACTS ACROSS LISMORE'S SUBURBS

The residents of Lismore have always lived with floods as commonplace. These disasters have forged local character, resilience & community unity.

However, 2022's events are best understood through the lens of local lived experience of the scale & frequency of historical flooding. For example, before 2022, in the 150+ years since Lismore's river measurements began:

1. the river height topped 10M 30 times in a century & a half - roughly once every five years. Almost to schedule, four such floods had come in the two decades since 2000
2. the river height topped 11M only 13 times in a century & a half - so on average, Lismore typically waited for more than a decade between floods of that scale. The previous 11M+ inundation was in 2017, and before that it 1989
3. only twice had Lismore endured a 12M Wilsons River - almost 50 & 70 years ago (1974 & 1954, both 12.11M).

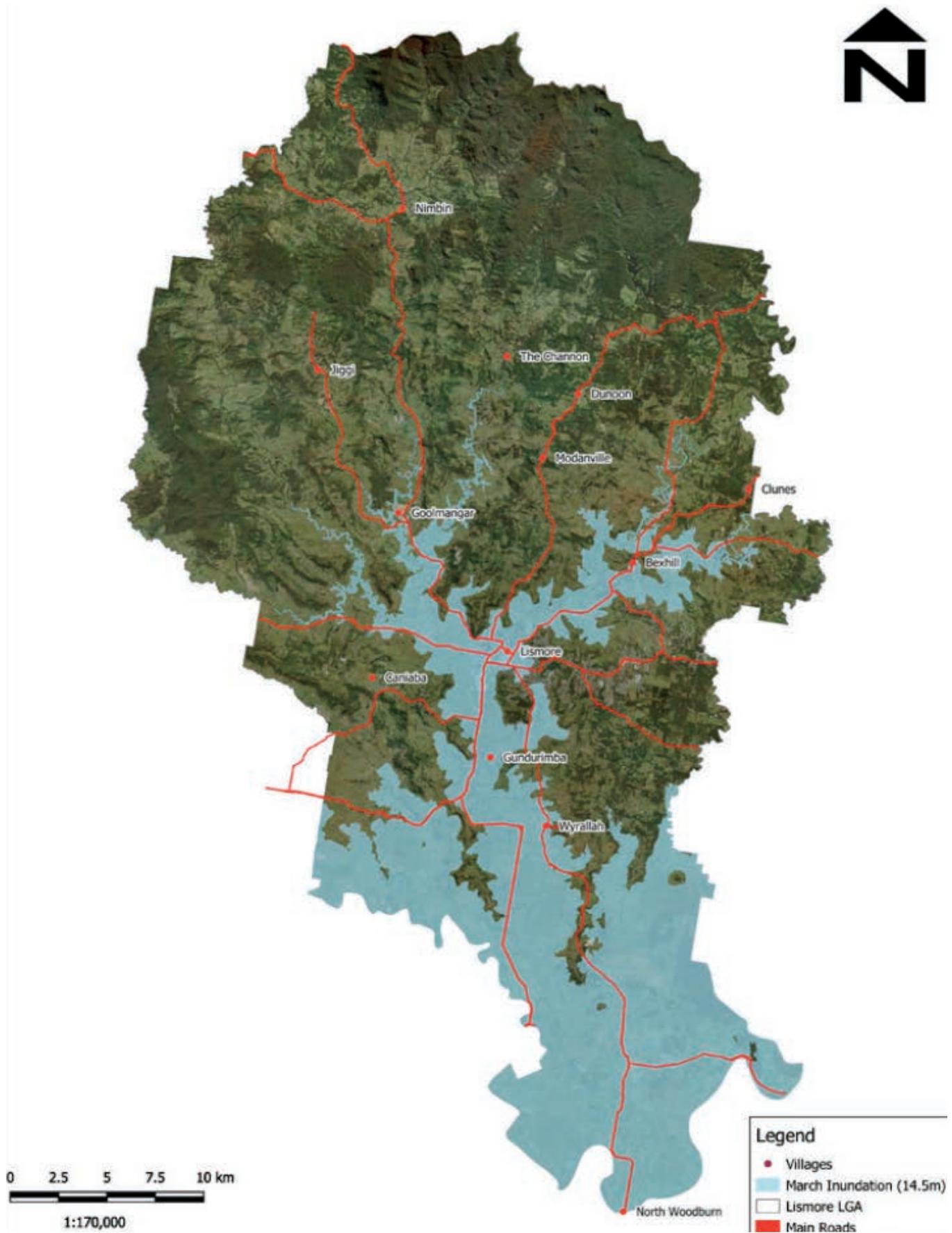
Lismore's residents did not face 2022 floods like those they knew, nor even like what they might have heard about from parents & grandparents:

- February's 14.4M flood was 2M+ over the 1 in 100 year Design Flood Level that not even the 1954 & 1974 floods met
- after the loss, trauma, heartache & steady progress in its biggest clean-up ever, Lismore was hit again, as March's 11.4M flood struck vulnerable Lismore residents inside a month.

Two flood disasters confronted Lismore with a scale & quick succession without a local parallel.

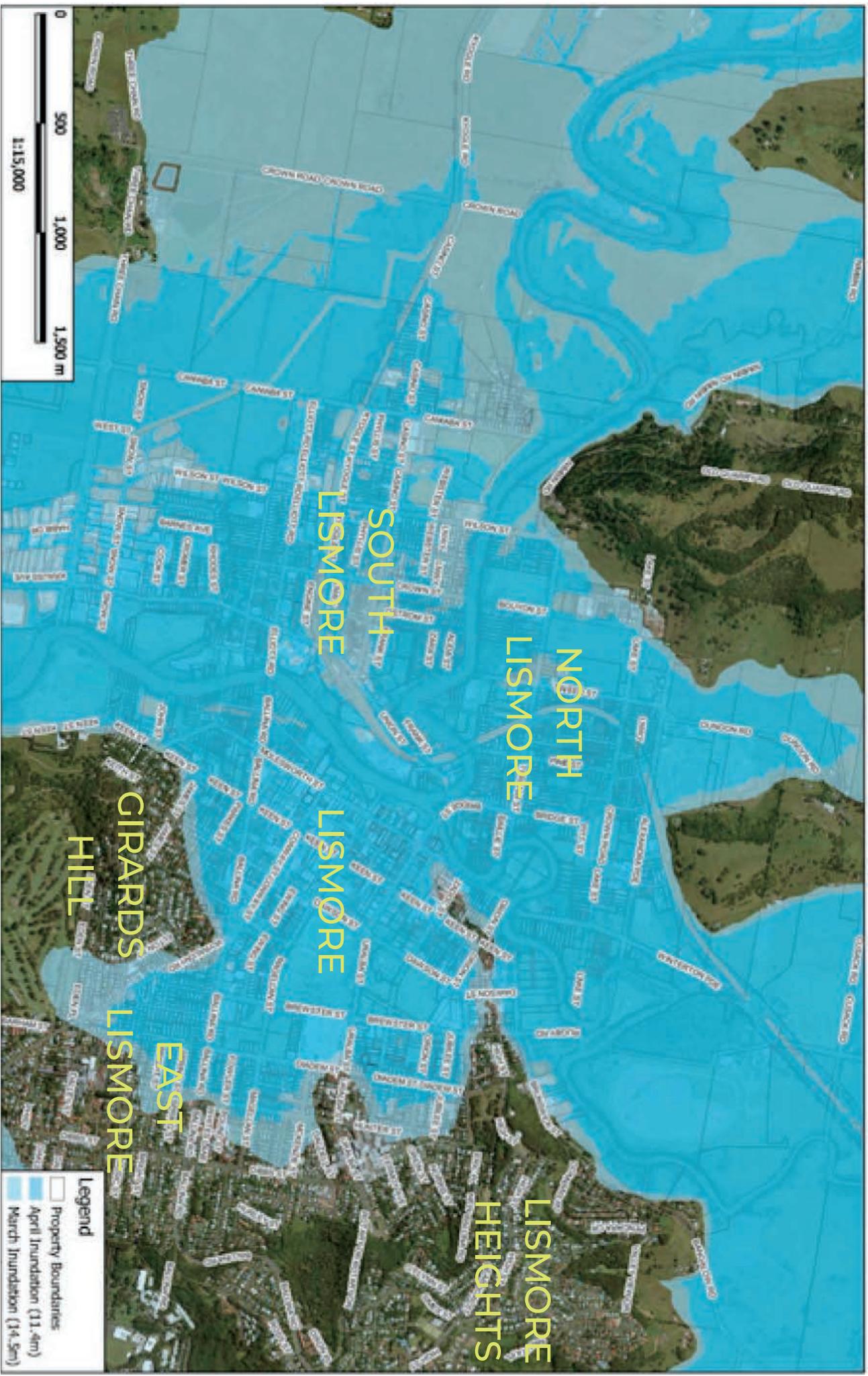
Figure 3.5's overlay of the two floods not only shows how they rendered thousands of Lismore, South Lismore & North Lismore residents homeless, but also why the successive catastrophes have left even flood-hardened people uncertain of their future directions.

FIGURE 3.4: LISMORE REGION FLOODING IMPACTS



Source: Lismore City Council Flood Response (June 2022)

FIGURE 3.5: FLOODING IMPACTS IN CENTRAL LISMORE SUBURBS



Source: Lismore City Council Flood Response (June 2022)

4: Flooding Impacts on Lismore's Community

The severity & compounding nature of the floods detailed in Chapter 3 has profoundly affected Lismore's community.

Chapter 4 introduces four classifications of community impacts, namely:

- health & wellbeing
- asset damage
- diverted activities
- lost confidence & uncertain outlook.

Each of these four classifications is discussed below.

4.1 HEALTH AND WELLBEING OF RESIDENTS

The most direct impacts from the floods are the range of human challenges it has confronted Lismore's community with.

Most immediately, floodwaters posed the threat of harm to residents, most obviously among the many residents of suburbs like Lismore, South Lismore & North Lismore.

Tragically, four perished in the February floods, with another life lost in March. In each case, relatively immobile citizens could not evade the threat of rising waters.

Even once the waters receded, the floods continued to threaten the health and wellbeing of residents.

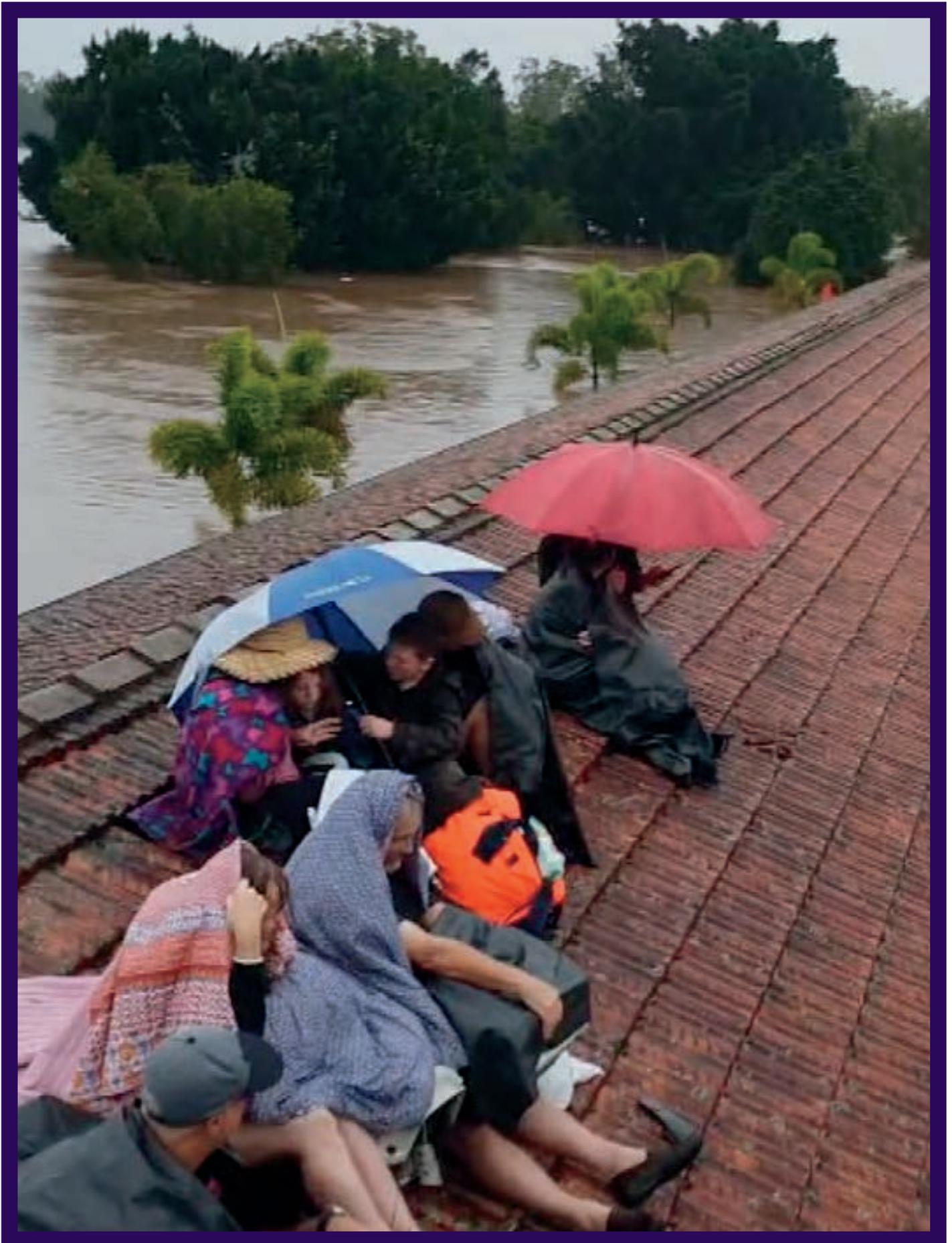
Many dwellings were left uninhabitable by either structural damage and risks of collapse, fire or other misadventure.

In other cases, new environmental hazards, like mould, or a lack of water, electricity or sewerage services have compromised citizens' physical health.

Lastly, the toll of lives, homes & businesses lost has taken an enormous mental toll on Lismore's residents.

The rolling challenges of record flood, clean-up, second inundation & attempts at rebuild and recovery amid delayed & limited outside support have led to collective stress, anguish & uncertainty well beyond what the Lismore community has had to bear before.

An estimated 2,000 residents were rendered homeless and bereft of even the stability of a certain roof over their heads.



4.2 ASSET DAMAGE

Asset losses across the community have been widespread, with widespread damaging impacts including:

- housing
- the CBD
- industrial & agricultural property
- machinery & equipment
- vehicles
- community infrastructure.

Overall, flood insurance coverage for both residential and commercial assets was relatively low.

A total of 1,720 residential properties were impacted by flooding. Of those, 1,399 of properties - 81 per cent - suffered major or severe impacts, or were destroyed.

Among commercial & industrial properties, 656 properties were flood affected. Of these, 78 per cent of properties saw major or severe impacts, or complete destruction from the flooding.

Among community assets, Lismore City Council, State agencies & non-government organisations saw major impacts, including schools, churches & community facilities.

Among Council's own assets, total damages came to over \$350M, including:

- Roads & Bridges: \$150M-\$200M
- Water & Wastewater: \$108M
- Council Facilities: \$20M+
- Waste & Resource Recovery: \$10M-\$20M.



SOUTH LISMORE
675 Residences impacted
\$144M repair & replacement cost



NORTH LISMORE
222 Residences impacted
\$62M repair & replacement cost



LISMORE LGA
1,720 Residences impacted
\$361M repair & replacement cost

Source: Sea & Star Advisory estimates

FIGURE 4.1: KEY ASSET IMPACTS ACROSS THE LISMORE REGION

The Impact to Lismore Local Government Area: Key figures

Essential & Community Infrastructure (Council owned)



Roads & Bridges
\$150-200M



Water & Wastewater
\$108M



Waste and
Resource Recovery
\$10-20M



Council Facilities
and Depots
\$20M+

**TOTAL = Over \$350M in
damage to Council assets**

Preliminary estimates of landslip remediation
for our road network is \$90M

Source: Lismore City Council Flood Response (June 2022)

The Insurance Council of Australia places the full extent of insured damages alone across Northern NSW & South East Queensland at upwards of \$5.45 billion as of September 2022.

This is the most costly flood event in Australian history.

Two hundred twenty-five thousand insurance claims have been lodged to date, with 125,000 relating to home claims.

The full scale of insured asset losses will continue to rise, accounting for ongoing increases in the number of insured claims over time.

As many businesses, in particular, carried little or no flood insurance, the full scale of asset losses is significantly larger than the insured losses alone.

This also means many replacement assets must be funded through the businesses' retained earnings, grants or new financing from institutions, instead of insurance payouts.

4.3 DIVERTED ACTIVITIES

The aftermath of the floods diverted Lismore's residents from everyday activities into the surreal, confronting & traumatic.

Once free of immediate danger, the clean-up effort became an immediate, essential priority for Lismore's residents.

In total, 70,000 tonnes of waste - or 14,000 truckloads - had to be readied for extraction to landfill. Even with external support on the ground, these clean-up costs diverted effort away from the community & the economy.

From a business perspective:

- 3,170 Lismore firms were impacted, out of a total of 4,145 firms across the area
- 18,000 workers were impacted.

4.4 LOST CONFIDENCE & UNCERTAIN OUTLOOK

As well as immediate impacts, the rapid compounding of the two disasters has generated a sense of uncertainty & diminished confidence.

This upended a broad-based rising sense of confidence in the Lismore region's prospects, replacing it with numerous uncertainties.

More specific impacts on the business community are considered in the next chapter.



PART C: FLOOD IMPACTS ON THE ECONOMY

Part C (chapters 5 & 6) of this Report:

- describes different sources of flood impacts across the economy
- provides a preliminary projection of quantitative impacts on Lismore's economy.

5: Classifying Flooding's Economic Impacts

5.1 NEGATIVE IMPACTS

The impacts of flooding on the local economy & the business community can be considered from several perspectives.

Seven broad classifications of impacts across Lismore Region & are reflected in Figure 5.1 on the next page.

5.2 LISMORE'S CENTRAL ECONOMIC PROBLEM: LOST CONFIDENCE & UNCERTAINTY

Among the many consequences of the flood, perhaps the most pervasive impacts relate to lost confidence.

While this is true of the whole community, as recognised in Chapter 4, it has particularly acute effects in the economy. As observed in Lismore City Council's Flood Response:

Many of Lismore's businesses are at an inflection point. The cumulative impact of the flood in 2017, a global pandemic and the current natural disaster event has left people questioning whether they have the appetite to reinvest and rebuild their businesses.

Unless & until lost confidence is restored, recovery can only be partial.

5.3 OFFSETTING INCREASES IN ACTIVITY

While the economic impacts of the floods are overwhelmingly negative, some forms of economic activity will see some small offsetting surges in activity.

For example, in the immediate aftermath & clean-up phase, the 14,000 truckloads of waste reflect markedly higher short-term activity levels in freight & logistics than would have occurred without flooding.

In the reconstruction phase, the rebuilding effort will similarly lift levels of construction activity well beyond what would have eventuated without flooding.

In considering these offsetting effects, it is especially important to emphasise:

- negative impacts greatly exceed increases in activity
- the increases in activity are generally temporary in nature, or reflect future activity 'brought forward' in time
- losses in activity are at real risk of becoming permanent, especially if the core problem of lost confidence is not resolved rapidly
- offsetting production increases are in the context of much more extensive asset losses.

FIGURE 5.1: SEVEN CLASSIFICATIONS OF NEGATIVE IMPACTS ON THE LISMORE ECONOMY



Uncertainty, Uninsurable Risks & Lost Confidence

Businesses face uncertainties about government support, risks they can't shift, labour supply & consumer behaviour that undermine their own confidence.



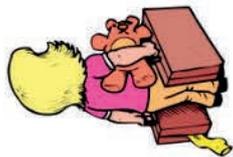
Asset Damages

Flooding has led to significant business asset damage, impairing Lismore's productive potential.



Clean Up Disruptions

In the early days of recovery, house & home took priority, cutting production.



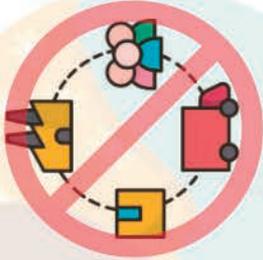
Lost Labour Force

Some households & workers have relocated for good, reducing Lismore's productive potential.



Reduced Consumption

Direct impacts on production will tend to lead to lower household incomes for worker, who are likely to reduce non-essential consumption to conserve wealth.



Fragmented Supply Chain

Flooding disrupted the local supply chain, posing the risk local suppliers may be permanently displaced.



Deferred or Lost Developments and Expansions

The crisis conditions of the floods & their impacts on local confidence and demand come at the cost of deferred expansion or development projects.

6: Projected Economic Impacts

6.1 OVERVIEW OF ECONOMIC IMPACT FRAMEWORK

The previous chapter provided seven classifications of negative impacts on the Lismore economy.

These factors are the basis of the quantitative estimates produced in this chapter. Table 6.1 below summarises:

- the time-period over which each impact could disrupt the economy
- the incidence of the impact on the economy's structure
- key risk factors & uncertainties about the extent or duration of disruptions to Lismore's local production.

Using Table 6.1 as a framework, detailed estimates of impacts on Lismore activity & production were developed by:

- publicly available data sources (such as regional labour force statistics)
- intensive 1 on 1 stakeholder consultation with key producers & industry bodies across the Lismore economy. Consultations were undertaken confidentially to ensure confidence to reveal sensitive data
- applying estimates of impacts to the structure of the local economy, consistent with the summary profile outlined in section 2.5 of this assessment.

FIGURE 6.1: ASSESSMENT OF LOCAL ECONOMIC IMPACTS OF FLOODING

IMPACT	TIME PERIOD	INCIDENCE	UNCERTAINTIES
Uncertainty & Lost Confidence	Immediate to Potentially Long Term	Supply Side & Demand Side	Source & timing of actions restoring confidence
Asset Damage	Immediate to Medium Term	Supply Side	Rate at which assets can be replaced
Clean Up Disruptions	Short Term Only	Supply Side	N/A
Lost Labour Force	Short to Potentially Long Term	Supply Side	Replenishment of housing stock terms of buy backs
Reduced Consumption	Short to Potentially Long Term	Demand Side	Extent of population losses & consumer confidence impacts
Fragmented Supply Chain	Short to Potentially Long Term	Supply Side	Length of supply contracts local reinvestment decisions
Deferred or Lost Expansion	Short to Potentially Long Term	Supply Side	Financing costs & perceptions of local resources & demand

6.2 OVERVIEW OF IMPACTS

Preliminary analysis undertaken by Sea & Star Advisory suggests Lismore's immediate losses of production will total \$409 million in the 2021-22 and 2022-23 financial years.

Expressed another way:

- on top of all the personal stresses & asset losses suffered by residents, the fall in the local economy's production is equivalent to a loss of more than \$9,300 per resident.

Lismore's production in the 16 months to the end of June 2023 is projected to be 15 per cent below the 'no floods' baseline.

Figure 7.1 on the next page reflects the profile of projected falls in Lismore's economic production.

Sea & Star Advisory's projections suggest that Lismore's production losses will be concentrated in:

- health care & social assistance
- education & training
- retail trade.

Together, lost production across these three sectors accounts for more than 60 per cent of total losses across the local economy.

Figure 7.2 overleaf depicts the losses in these three sectors in the period to the end of June 2023.

6.3 KEY UNCERTAINTIES & ASSUMPTIONS

Sea & Star Advisory's preliminary analysis of economic impacts is subject to considerable current uncertainties about how flood recovery & general economic conditions will unfold.

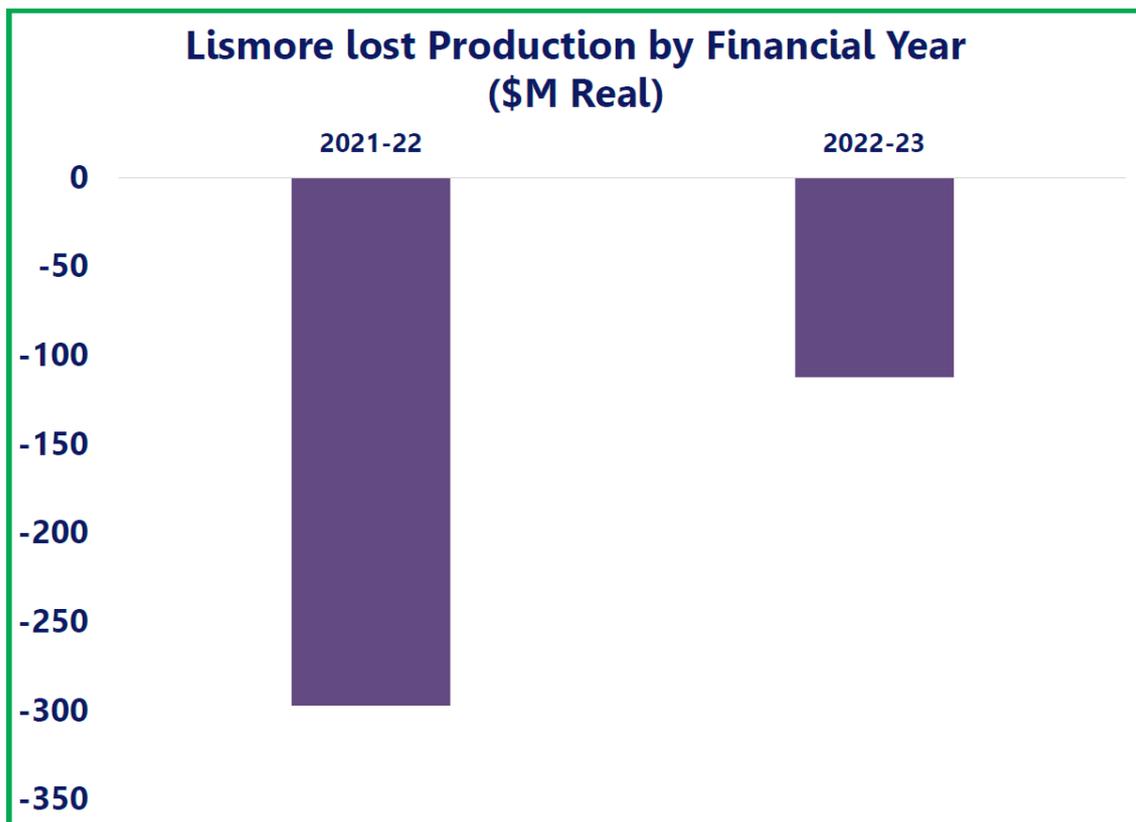
Overall, Sea & Star Advisory's assumptions reflect our view that Lismore can begin to make a steady construction-fuelled economic recovery beyond the end of 2022-23.

Additionally, Northern Rivers economies are generally flexible, robust & resilient, with considerable capacity to adjust & recover quite quickly, despite the scale of flood impacts. Critical assumptions adopted for this analysis are:

- full recovery in production is achieved in 2026/27
- "balance sheet" losses from flood asset damage will not delay timely financing of repair & replacement, supported by policy intervention
- despite dwellings damages & losses, population, jobs and labour supply will not permanently be dislocated from the Northern Rivers (even if re-distributed within the region).

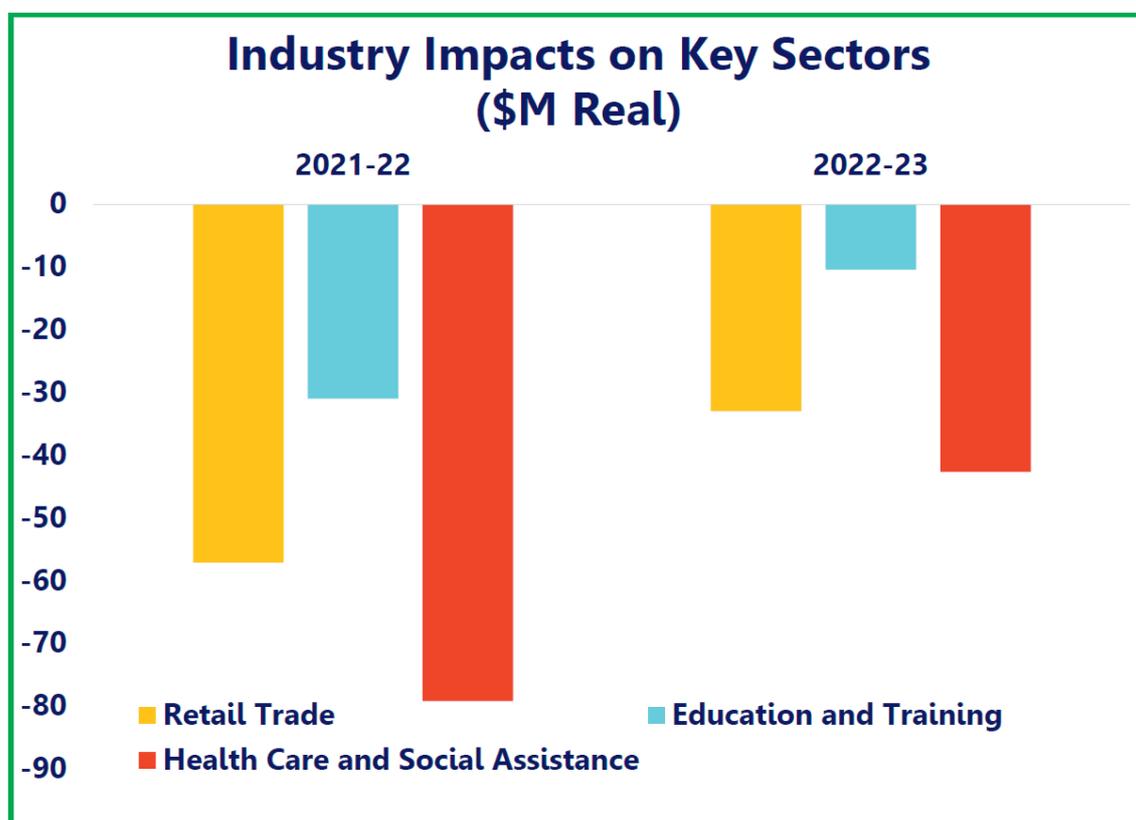
The major constraint on recovery is limitations in construction sector capacity across the Northern Rivers. Utilisation was high before the floods, and the rate of recovery will likely be slower due to limitations in rebuilding capacity, posing risks to the strength of recovery. Implications are explored in Box 7.1.

FIGURE 7.1: LISMORE ECONOMIC LOSSES BY FINANCIAL YEAR



Source: Sea & Star Advisory projections

FIGURE 7.2: ECONOMIC LOSSES IN LISMORE'S KEY SECTORS



Source: Sea & Star Advisory projections

BOX 7.1 - CONSTRUCTION SECTOR CAPACITY IN FOCUS

With so many homes, businesses & critical assets damaged, the Northern Rivers' construction sector & related supply chain is critical in rebuilding the region's economy. However, constraints in the construction industry's capacity are likely to prolong the rate of recovery.

Scale of the Northern Rivers Construction Industry

Consistent with the region's strong population growth, construction activity in the Northern Rivers is substantial - \$1.3 billion in production, employing more than 7,000 people across the region. The industry spans four broad groupings:

1. Dwelling construction – roofed structures built for long-term residential use, including apartments, townhouses & free-standing houses.
2. Non-residential building – roofed structures that are not dwellings, but that house people, plant & machinery, vehicles, goods or livestock.
3. Engineering construction – any construction that does not have a roof. Examples include roads, bridges, water assets, towers, railways, pipelines & subdivisions.
4. Construction services – services supporting dwelling, engineering & non-residential construction activity like concreting, plumbing, carpentry or electrical.

FIGURE 7.3: NORTHERN RIVERS' CONSTRUCTION BY SUBSECTOR



Source: Sea & Star Advisory analysis of Australian Bureau of Statistics & National Institute of Economic & Industry Research data

Impacts of Flooding on Construction Demand

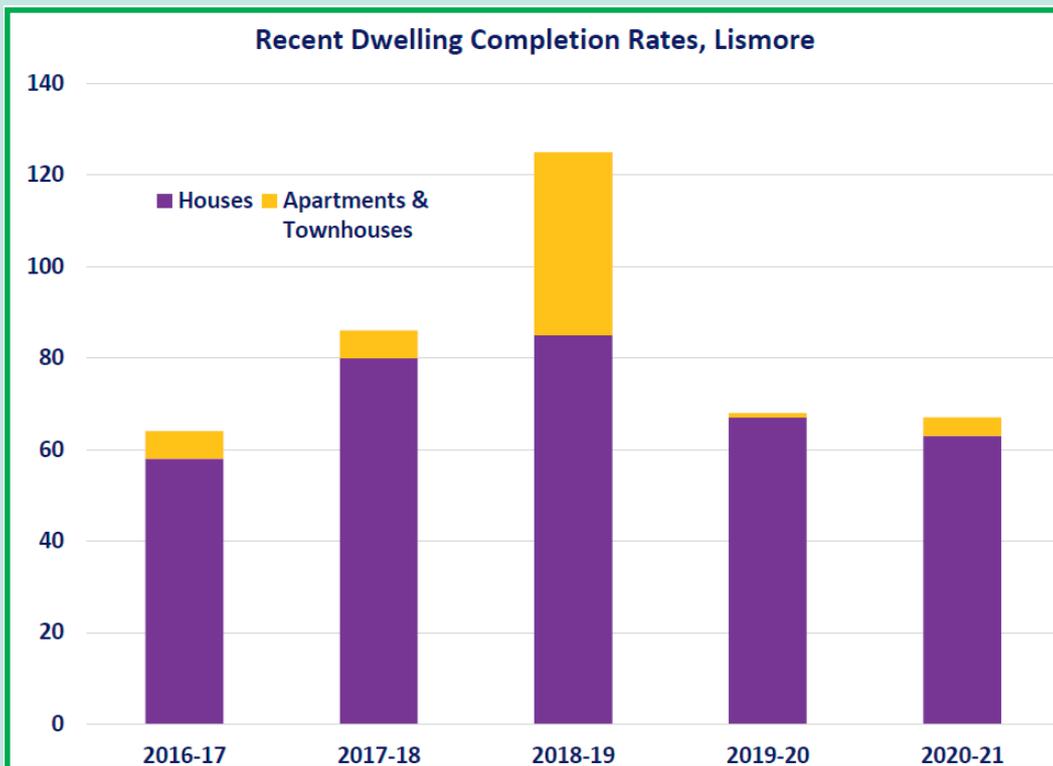
The need to repair & replace dwellings, productive buildings & critical infrastructure damaged by flooding will create construction demands across all four subsectors.

For example, we saw in chapter 6 that in Lismore alone:

- repairing or replacing Council's assets (mostly engineering) will cost \$350 million
- both housing & private business assets were extensively damaged.

Housing construction is the most critical construction need of the region, given the large-scale dislocation of residents caused by the flood. Figure 7.4 reflects Lismore's recent dwelling completion rates.

FIGURE 7.4: LISMORE HOUSING COMPLETIONS, 2016-17 TO 2020-21



Source: Sea & Star Advisory analysis of Australian Bureau of Statistics data

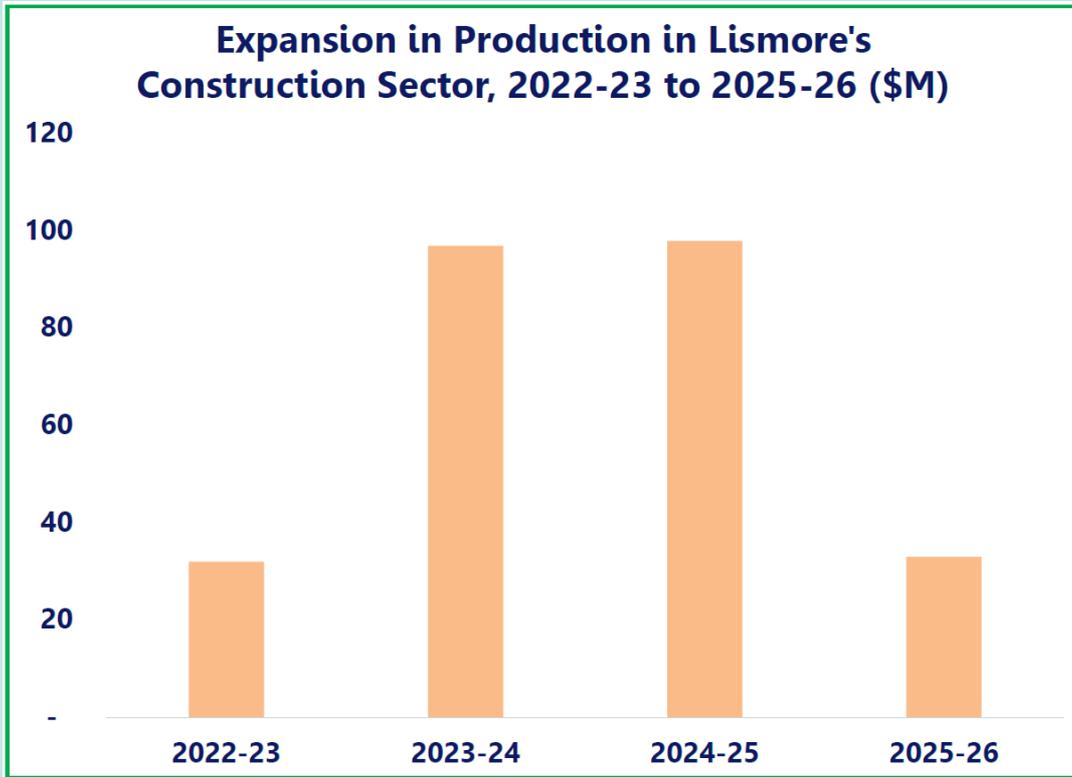
The scale of the adjustment required in dwelling production can be by considering that more than 1,500 homes in Lismore suffered moderate to severe damages, or were destroyed.

Put in practical terms: the number of homes rendered at least partly unusable from flooding is about 25 times higher than the typical number of annual dwelling completions in Lismore over the past five years.

Even allowing for the fact that homes with moderate damage will require repairs, rather than a rebuild, this shows the significant scale of the challenge ahead, and dramatic expansion in local housing construction required.

Figure 7.5 reflects the expansions in production projected for Lismore's construction sector over the four years from 2022-23 to 2025-26.

FIGURE 7.5: PROJECTED EXPANSION IN PRODUCTION IN LISMORE'S CONSTRUCTION SECTOR, 2022-23 TO 2025-26



Source: Sea & Star Advisory projections

Altogether, the expansion in local construction production over four years might come close to offsetting half the losses in all other sectors.

While the primary consideration is the rate at which Lismore's infrastructure & housing is restored, it is worth considering construction program benefits might be shared across the Northern Rivers & beyond. For example:

- Lismore's economy is unspecialised in construction compared to other Northern Rivers economies and neighbouring areas like the Gold Coast, and might not participate in a construction-led economic recovery as much as other localities
- extra income generated should be close to evenly split between workers & firms.

For example, Lismore has markedly fewer construction businesses than Clarence Valley, Byron and Ballina despite having a larger population than those localities. Tweed Shire has both a larger population base than Lismore and a markedly larger construction sector.

These distributional impacts are not important just to the construction sector itself, but also to their supply chain and the population-serving activities indirectly stimulated by higher construction activity & greater income for its workers & firms.

PART D: AN ACTION PLAN FOR EFFECTIVE RECOVERY

Part D (chapters 7 & 8) of this Report:

- explains why certainty is Lismore's greatest need
- sets out further priority actions to underpin a successful recovery.

7: A Pressing Need For Certainty

7.1 CONFIDENCE LOST, CERTAINTIES ERODED

Lismore's lost confidence is a complex, collective problem for its community, not easily set right again.

Lismore's lost confidence relates to two floods, and an abundance of issues stemming from them:

1. the immediate emotional trauma, with ongoing knock-on effects on morale & well-being
2. the compounding impacts of two successive, statistically-rare floods on perceptions of risks of recurrence
3. the hit to household "balance sheets", with many uninhabitable homes also uninsured
4. uninsured losses for business & ongoing limitations in labour supply that continue to impact production
5. 'market failure' driven by uncertainty & negative externalities: each resident or business relies on others for demand, income, or labour supply, yet cannot be confident others will remain, making their own economic outlook unstable
6. the need for integrated land-use & infrastructure planning to secure new housing & job precincts quickly
7. limitations in local capability & financial capacity to implement an integrated solution.

7.2 A ROADMAP FOR A WAY BACK

Council has identified that many of Lismore's businesses are questioning whether they have the appetite to reinvest & rebuild.

The cornerstones in addressing lost confidence are recognising:

- decisions by one party will affect others
- unlike simpler policy issues that fit a linear "problem-solution" template, Lismore requires multiple elements, integrated into a single solution
- partial solutions will be insufficient to address the full suite of problems and leave prospects in limbo
- an appropriate solution cannot be found without State & Federal intervention.

The first plank in implementing effective recovery came with the NSW Government's announcement of the Northern Rivers Reconstruction Corporation.

The Corporation will serve as the source of direction for integrated planning, reconstruction & reactivation solutions for essential services, infrastructure, housing and economic recovery.

7.3 ESSENTIALS OF LEADERSHIP & DIRECTION

While the Reconstruction Corporation represents a great step in the right direction, by its nature, it can only be a beginning.

Only resolute leadership, recognising and addressing the multiple underlying causes, can restore the certainty the Lismore community requires.

If Lismore lacks for conviction and a clear & confidence-building sense of direction, Lismore's future prospects are at risk of withering away altogether.

To give the Lismore community what it requires, Council has identified three critical success factors for the Corporation's work:

1. ensuring funding is available in a timely manner, with streamlined access to avoid further excessive delays
2. reflecting local perspectives, made in consultation with the communities its decisions will impact
3. providing support through the medium-term, to build a sustainable sense of recovery across the region.

These directions need to be established with urgency.



8: Priority Actions

8.1 KEY STRATEGIC DIRECTIONS

Lismore City Council's *Flood Response & related Review of Lismore's Land Use Management Strategy* flag several strategic directions to guide the rebuilding of the community.

Five factors will be critical to putting an effective recovery in place, swiftly:

1. depopulate high-risk areas & mitigate impacts for remaining residents
2. protect Lismore's centre & support development of a new commercial centre in the medium term
3. establish new residential housing supply & jobs precincts
4. provide critical enabling infrastructure & services to underpin new supply
5. consider ways of enhancing local participation in the necessary boom in re-construction.

8.2 DEPOPULATE HIGH-RISK AREAS & MITIGATE IMPACTS FOR REMAINING RESIDENTS

With close to 900 dwellings damaged or destroyed in North & South Lismore, Council has identified a planned retreat from the most high-risk areas of these localities as a strategic priority.

More specifically, Council is advocating for re-locating residents to new sites locally, so they can live flood-free, but remain close to their existing social networks and jobs.

Where landowners elect not to relocate, voluntary house raising and other flood adaptation work will be encouraged.

8.3 PROTECT LISMORE'S CENTRE & SUPPORT DEVELOPMENT OF A NEW COMMERCIAL CENTRE

Council has also prioritised protecting the CBD & land on the eastern side of the Wilsons River as an objective.

Details of future flood mitigation will be shaped by a new Floodplain Risk Management Plan and the CSIRO flood mitigation study for the Richmond and Wilsons catchments.

Council has further committed to undertake preliminary design & feasibility work into whether a new commercial or mixed-use centre could be established in the location of the golf course at East Lismore in the medium to longer term. This site could provide existing businesses located in the CBD with an alternative site for trade.

8.4 OPEN UP NEW EMPLOYMENT AND RESIDENTIAL PRECINCTS, RECOGNISING DIVERSITY IN DEMAND

Council's desire for planned retreat away from the most flood affected areas in North & South Lismore will require a similar amount of housing to be established in areas outside flood zones, on top of the forecast requirements for growth.

An analysis undertaken by strategic planning staff in early 2022 indicates Lismore has about 4,000 lots either in the development pipeline, or identified for potential future residential subdivision.

About 2,400 of these sites have either had development applications either approved or lodged. The remaining 1,600 lots relate to land either already zoned or foreshadowed for potential rezoning in the *Review of Lismore's Land Use Management Strategy*.

Three critical enabling factors will determine whether the potential of these sites can be realised swiftly:

1. timelines for infrastructure delivery are a key constraint to accelerating new housing in these areas
2. feasibility assessment should test whether developers have sufficient prospect of covering the margins they need to bring stock to market
3. supply also needs to offer sufficient diversity in local geography, pricing & build type to match the needs of both relocating & new residents.

Feasibility should be supported by the strong run-up in residential prices in Lismore, with the median sale price in the 12 months to December 2021 reaching \$560,000. Potential buy-backs of damaged properties could also provide further support for pricing of new stock.

To offer greater housing choice, increased density in existing residential areas outside of high-risk flood zones will also be encouraged. This will likely include:

- the medium density Health Precinct
- a new medium density precinct at East Lismore.

From the perspective of a re-locating resident, these areas carry the advantage of being relatively close to North & South Lismore compared to other sites, limiting resident dislocation. Adaptive use of Lismore Golf Course should also receive close consideration.

As for residential precincts, new jobs precincts will also need to be unlocked.

Feedback from industry indicates that while Lismore has large areas of undeveloped industrial land, lot sizes, location and/or flood considerations undermine suitable availability for mid-sized businesses.

Investigations into the expansion of the Goonellabah Industrial Precinct along Oliver Avenue will be undertaken, as well as other strategic sites.

8.5 ACCELERATE WATER & SEWER INFRASTRUCTURE PLANNING & DELIVERY

On top of the \$350 million bill for rebuilding Council infrastructure identified in chapter 5, a further investment requirement will be to accelerate the infrastructure necessary to service new job & housing precincts.

These works typically might be funded by developers' local infrastructure contributions. However, careful consideration should be given to:

- prospective impacts on feasibility
- perverse incentives to delay supply commitments in order to:
 - see government grants are forthcoming to meet those costs
 - see if other developers will trigger & bear the costs of major capacity upgrades.

Additionally, the extent of rebuilding required relative to the construction industry capacity available will emphasise the need to prioritise & direct capacity towards the most critical requirements of the region.

Facilitating the housing supply that enables Lismore to retain its economic base should be viewed as a foremost community priority.

8.6 HARNESS THE REBUILD TO YIELD NEW BUSINESSES & JOBS

Chapter 6 flagged that the recovery effort would produce a large expansion in Lismore's local reconstruction activity.

Rapid production of new works is undoubtedly the priority for Lismore. However, the recovery in local prosperity will also partly reflect:

- the extent to which local construction sector businesses & workers derive income from the rebuild
- the linkages to other sectors, including retail & hospitality, that see the increase in construction sector production & income flow through the rest of the local economy.

Relative to other areas of the Northern Rivers, Lismore's economy is unspecialised in construction. However, it should still attempt to fully enable what capacity & potential it has to foster a local Lismore recovery that is as strong as is possible.

As a priority, Council should engage both with its own construction sector businesses and key businesses in adjoining localities. This engagement process should look to establish the opportunities to integrate as much of the re-construction supply chain as possible locally.

ATRE

LISMORE