



# Report

## Disaster Resilience Community Strategic Plan

Warrumbungle Shire Council

21 May 2024





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## Project Details

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21 May 2024

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Via email: [nicole.benson@warrumbungle.nsw.gov.au](mailto:nicole.benson@warrumbungle.nsw.gov.au)

Dear Nicole,

## Disaster Resilience Community Strategic Plan

This report collates and processes all information gathered in the community consultation, the stakeholder engagement activities and the road network infrastructure review, inspection and reporting to formulate a clear profile of the strengths, weaknesses, opportunities and threats to the natural hazard vulnerabilities and risks associated with Warrumbungle Shire Council's road network infrastructure. The report identifies the highest-ranking road assets from the perspective of natural hazard affectation, community value and intrinsic value.

This report puts forward suggested tactical and strategic measures to mitigate natural hazard risks for the top-ranking road assets to protect against the threats and to maximise the opportunities for reducing the community's vulnerabilities in this area. The project aimed to capture a broad range of inputs from the LGA's key population areas in Coonabarabran, Dunedoo, Coolah, Baradine, Binnaway, Mendooran and Goolhi.

The report includes the following:

- Project background.
- Summary of project milestone outcomes and final high-priority road assets listing.
- Recommendations for natural hazard risk mitigation for high-priority road assets.
- A view to the future.

Yours Sincerely,

**Neil Dufty**  
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## 1 INTRODUCTION & BACKGROUND

Warrumbungle Shire is a local government area in the central western region of New South Wales with a population of approximately 9,200 people and a land area of 12,380 sq kms. Key towns in the shire are Coonabarabran, Coolah, Goolhi, Mendooran, Binnaway, Baradine and Dunedoo, which are connected by an extensive council-managed road network of both sealed (approx. 1,013km) and unsealed (approx. 1,500km) roads.

Extreme weather events such as storms, bushfires and floods have a significant impact on road infrastructure in the shire. Damage to roads, bridges and culverts can complicate or inhibit access and egress to affected areas, potentially isolating people and property from emergency assistance or evacuation possibilities.

Warrumbungle Shire Council (Council) has identified the community's need to build natural hazard resilience for the next 20 years through improvements in the road infrastructure and by addressing education and awareness gaps. This report presents the outcomes of the Disaster Resilience Community Strategic Plan project which identifies priority areas in the road infrastructure and provides suggested strategies for improvement to enable Council to integrate and future-proof its road planning processes.

### 1.1 Objectives & Deliverables

Warrumbungle Shire Council has identified the following objectives for the project:

- Identify infrastructure deficiencies and treatments, education, and awareness gaps across the LGA.
- Identify key delivery agencies or community groups within the LGA.
- Develop a Disaster Resilience Community Strategic Plan that addresses the community's needs to build and strengthen the Council's natural hazard resilience for the next 20 years.

The scope of work includes the following key tasks and deliverables:

- Desktop research and analysis of best-practice methods
- Transport Infrastructure Mapping & Review Plan
- Community & Stakeholder Engagement
- Transport Infrastructure Review
- Transport Infrastructure Field Inspections
- Warrumbungle Shire Disaster Resilience Community Strategic Plan (WSC DRCSPP).

The outcomes of these key tasks and deliverables are presented in this report.



## 2 PROJECT MILESTONES & KEY OUTCOMES

### 2.1 Desktop Research and Review

A thorough online search, complemented by targeted inquiries to relevant parties in Water Technologies' extensive international network, yielded more than 100 potential sources of information which were screened for relevance, authority and currency, resulting in 15 relevant sources to support the WSC DRCSP project.

The desktop research and review of these sources demonstrated that there are virtually no comparable all-encompassing road infrastructure natural hazard resilience initiatives anywhere in Australia, the region or around the world. Particularly notable is the absence of a community voice in such work, a view which is supported by our informal conversations with experts in the field. This is hardly surprising considering that the greater focus on adaptation and resilience-building forced by the increasing pace of change in environmental conditions is a concept which is only now getting a firmer foothold inside public agencies around the world.

The key ideas extracted from this desktop research to support the WSC DRCSP project are as follows:

- A risk-based approach, supported by integrated mapping of road infrastructure, natural hazard risk, and community profiles is a powerful and generally accepted methodology.
- A multi-hazard approach incorporating all key natural hazards for the next 20 years is important, bearing in mind that different hazards can affect road networks in different ways. Also, the potential for compound natural hazard events should be considered.
- The topic of natural hazard/disaster road-network resilience is gaining traction in the NSW Local Government community.
- Involvement of the local community in developing a road network disaster resilience strategy is critical to deliver effective outcomes.
- The needs of the community may be varied and diverse within groups. Some understanding of the vulnerability profile of the communities concerned is required.
- A road inspection methodology to support natural hazard risk assessment can be based on the generic Institute for Public Works Engineering Australasia (IPWEA) manual.
- Categorisation and definition of possible natural hazards to consider.
- To stay abreast of rapid change, the premise of a disaster resilience strategy should be that it is an on-going process, enabling it to evolve with and respond to changes in demography, environment and so on.
- Various key stakeholders were identified in the course of this process. Of particular note are IPWEA and Local Government NSW (LGNSW) with their respective focus on road networks and NSW local government matters, and also based on their demonstrated interest in the subject matter.

For a detailed overview of the outcomes of the desktop research, refer to Water Technology (2023a).

### 2.2 Transport Infrastructure Mapping & Review Plan

Council owns and maintains approximately 2,500km of roads in the LGA. The road network consists of approximately 1,000km sealed roads, 1,500km unsealed roads, and associated assets including bridges, culverts, and causeways. The road network connects the key towns of Coonabarabran, Coolah, Goolhi, Mendooran, Binnaway, Baradine, and Dunedoo, supporting about 9,200 people in a large area of 12,380 sq kms to meet needs and aspirations for employment, leisure, culture, business, education, communication, tourism etc. This project has an explicit focus on Council-owned road infrastructure; any road segments or assets that fall outside this scope may be flagged in this review as a result of the community consultation and stakeholder engagement process, but are included to accurately reflect the community's feedback only.



Council provided data for road segments and road assets in GIS format containing:

- Road Segment information for a total of 1,375 features:
  - Highways (36 features, no road\_id)
  - Regional Roads (15 features, no road\_id)
  - Local Roads (339 features, includes road\_id)
  - Streets (509 features, road\_id unclear)
  - Footpaths (476 features, id available)
- Road Asset information for a total of 1,171 features:
  - Major Culverts (91 features, feature\_id and road\_id available)
  - Culverts <6m (658 features, feature\_id and road\_id available)
  - Causeways (360 features, feature\_id and road\_id available)
  - Bridges (62 features, feature\_id and road\_id available)

Asset information was uploaded to Water Technology's GIS platform to provide spatial context as illustrated in Figure 2-1.

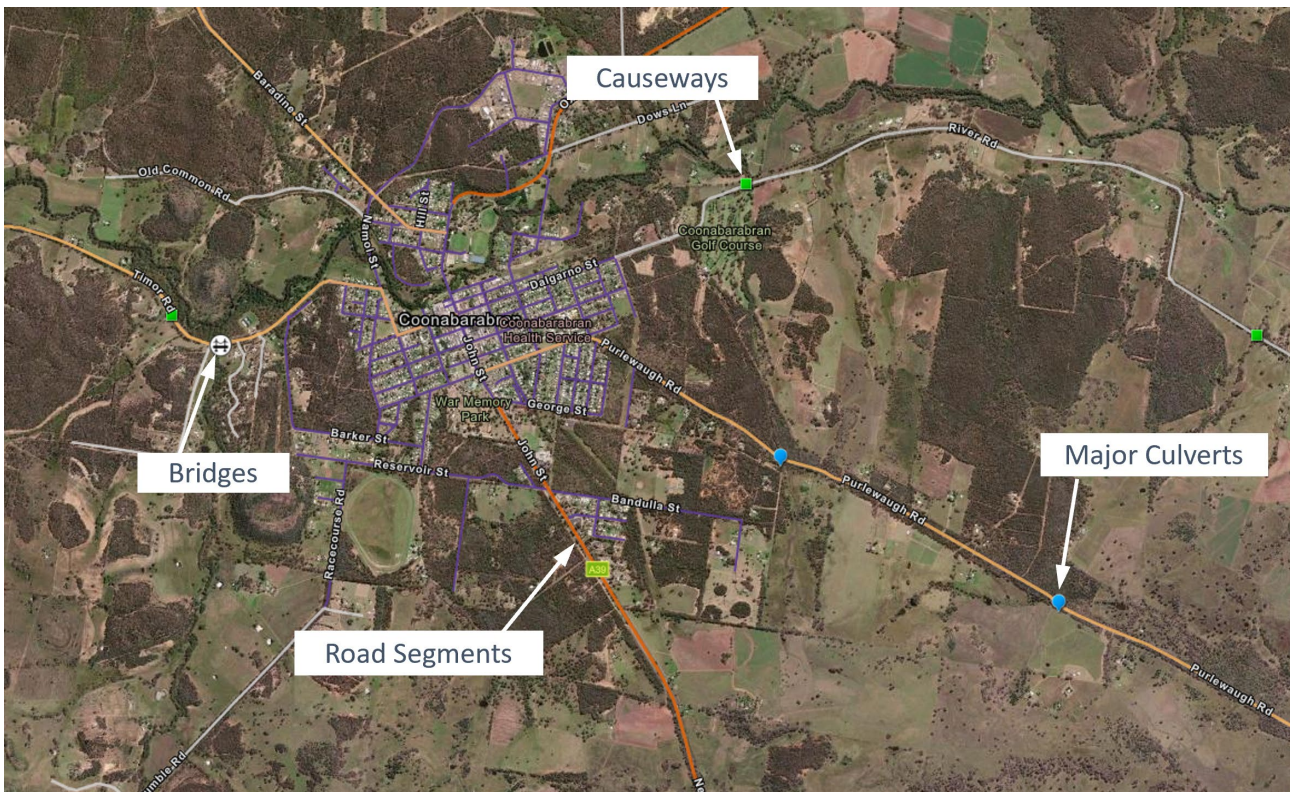


Figure 2-1 Asset data in GIS format



To facilitate the review of the 2,546 road infrastructure elements in the database, a multi-criteria analysis (MCA) framework was developed to bring together evaluations of the asset data with indicators for *Natural Hazard Affection*, *Intrinsic Value* and *Community Value* for each asset. A Transport Infrastructure Review Matrix with asset data and the various indicators was created to capture the results of the ongoing evaluation process.

Scoring each indicator for each asset according to predetermined scales would then provide the means to produce a relative “priority-rating” for the assets by combining the likelihood of impact by a natural hazard event (*Natural Hazard Impact*) with its overall function (*Intrinsic Value*) and its importance to the community (*Community Value*). This delivers a measure of the relative risk associated with each particular asset which can be used to direct and finetune Council’s road asset management efforts.

The detail of the draft Transport Infrastructure Review Matrix is presented in Figure 2-2.

Asset Data			A. Natural Hazard Affection			B. Intrinsic Value			C. Community Value	
asset_id	assetname	Asset-type	FLOOD Affection (0=not affected, 3=moderately affected, 5= severely affected)	BUSHFIRE Affection (0=not affected, 3=moderately affected, 5= severely affected)	STORM Affection (0=not affected, 3=moderately affected, 5= severely affected)	POPULATION SERVED (1: <10, 2: 10-50, 3: 50-100, 4: 100-250, 5: 250+)	ALTERNATE ROUTES (No: 0, Some: 3, Many: 5)	TBA (No: 0, Some: 3, Many: 5)	EMERGENCY ACCESS/EGRESS (not important: 0, moderately important: 3, very important: 5)	ACCESS TO SERVI (not important: 0, moderately important: 3, ve important: 5)
lr1134	Jermaine Road	Local road	5	3	0	1	3		1	3
lr1136	Mani Road	Local road	3	1	0	2	5		3	5
lr1137	Mt Erin Road	Local road	3	1	0	4	3		5	1
lr1138	Ashby Road	Local road	3	1	0	3	0		1	3
lr1139	Nandi Hills Place	Local road	3	1	0	4	3		3	5
lr0001	A/Beketts Road	Regional road	0	1	0	4	5		5	1
lr0002	Albert Wright Road	Regional road	0	1	3	4	0		1	3
lr0003	All Weather Road	Regional road	0	1	3	5	5		3	5
lr0004	Ameys Road	Regional road	2	1	3	3	5		5	1
lr0005	Andromeda Way	Regional road	3	1	0	5	3		1	3

Figure 2-2 Transport Infrastructure Review Matrix (detail)

A detailed background of the Transport Infrastructure Review Plan are provided in Water Technology (2023b).

### 2.3 Community & Stakeholder Engagement

Council emphasised the importance of a community voice to be reflected in the process and the outcomes of the project. This was achieved by connecting with the local community and relevant stakeholders to identify infrastructure deficiencies and treatments, education, and awareness gaps across the LGA and to discover the community’s **needs and wants** to build and strengthen the road network’s natural hazard resilience for the next 20 years. Three different methodologies were employed to carry out this task:

- In-Person Community Consultation Sessions

In close cooperation with the Council project team, the in-person community consultation sessions took place in the week commencing Monday 6 November 2023 in the following 7 locations:

- Mendooran
- Coolah
- Baradine
- Binnaway
- Binnaway
- Goolhi
- Dunedoo.





## ■ Stakeholder Engagement

Key stakeholders were identified prior to and during the project and were engaged in the most practicable and efficient manner available, including in-person meetings, on-line meetings, telephone conversations and/or email correspondence. Key stakeholders were:

- NSW State Emergency Services (SES) - Chief Inspector, Southern Zone and Western Zone
- NSW Rural Fire Service (RFS) - Regional Fire Control Centre
- NSW Rural Fire Service (RFS) - Local Brigade Captain, Baradine
- NSW Local Land Services
- Transport for NSW
- IPWEA NSW & ACT- Chief Engineer, Roads Directorate
- Local Emergency Management Committee (LEMC)
- Council departments: Urban Services Manager, Roads Team and LEMC Team

## ■ Social Pinpoint Online Engagement Tool

To support the consultation and engagement effort, Water Technology developed an online engagement portal as an additional avenue for the dispersed communities in Warrumbungle LGA to visually mark specific road infrastructure components and leave their feedback on what the issues are and why this is important to them (needs and wants). The *Social Pinpoint* online engagement portal (Figure 2-3) was published on Council's Have Your Say webpage on 13 October 2023, two weeks prior to the in-person community consultation meetings scheduled in the week starting Monday 6 November 2023 and was available until four weeks after the in-person community consultations, providing a total of 6 weeks opportunity for the community to access the portal and provide their input. The online engagement portal was intensively advertised by Council's Marketing & Communications Department via Council's regular media channels, its website and was promoted during the in-person community consultation sessions.

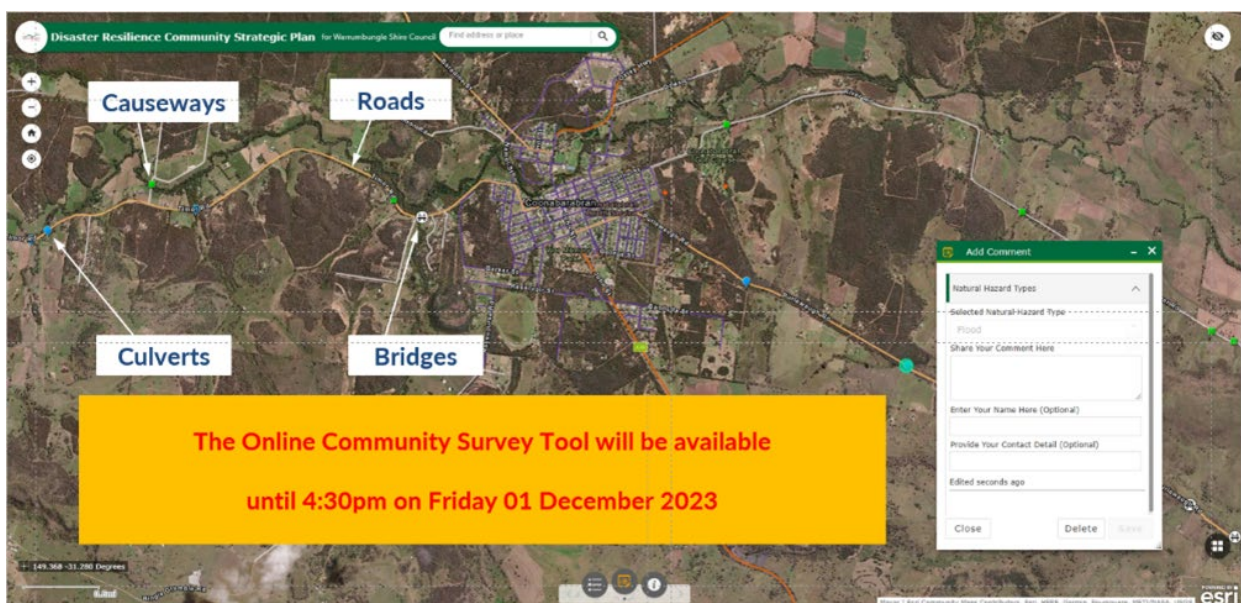


Figure 2-3 Social Pinpoint online engagement portal for WSC DRCSPP project

Further detail and background to the community and stakeholder engagement process supporting the WSC DRCSPP project can be found in Water Technology (2024a).



## 2.4 Transport Infrastructure Review

The consultation process enabled the completion of a “desktop” evaluation of the road assets using the transport infrastructure risk assessment matrix, providing a preliminary ranking of road assets in terms of relative risk associated with flood, bushfire and storm.

Based on the information collected through the three consultation and engagement processes, scoring values for the “**Community Value**” component were added into the transport infrastructure risk assessment matrix. A total of 87 individual assets were recognised in this process with one or more comments, including assets of all types and in all localities:

- Highways: 2 <sup>note</sup>
- Regional Roads: 3 <sup>note</sup>
- Local Roads: 24
- Streets: 9
- Bridges: 4
- Causeways: 39
- Culverts: 5

*Note: not in council control*

Available data and information for natural hazard affectation related to floods, storms and bushfire were analysed to add scorings for the “**Natural Hazard Affectation**” component of each asset. Sources consulted included, but were not limited to:

- Coombe, J. et al (2015) - Supporting Rural Australian Communities after Disaster: the Warrumbungle Bushfire Support Coordination Service.
- Castlereagh Bush Fire Management Committee (2012) - Bush Fire Risk Management Plan.
- Warrumbungle Shire Council (2022) – Adverse Event Plan
- Warrumbungle Shire Council (2015) – Evacuations: What Do I Do
- Warrumbungle Shire Council (2020) – Local Emergency Management Plan (LEMP)
- NSW State Emergency Service (2013) – Warrumbungle Shire Flood Emergency Sub Plan
- NSW State Emergency Service (2007) – Warrumbungle Shire Local Flood Plan
- Warrumbungle Shire Council (undated) – Flood\_NaturalDisaster\_Defects.XLS
- Warrumbungle Shire Council (2013) – Bushfire\_130124\_Affected\_Properties.XLS
- Warrumbungle Shire Council (2017) – Bushfire\_Damage\_Assessment\_20170215.XLS
- Warrumbungle Shire Council (2017) – Property\_Damage\_20170215.XLS
- Anecdotal evidence gathered during stakeholder engagement process

Finally, based on general assessment of spatial information, scoring for “**Intrinsic Value**” was determined, also supported by the following sources provided by Council.

- Warrumbungle Shire Council (2024) – Single\_Access\_Roads (GIS Files)
- Warrumbungle Shire Council (2024) – Fire\_Trails\_BRMZ (GIS Files)



This preliminary desktop-based Transport Infrastructure Review where assets were recognised based on their *Community Value*, *Natural Hazard Affection* and *Intrinsic Value* provided a list of 144 assets which are presented in Appendix A. The scoring delivered a relative priority ranking for these assets, of which the 23 top-ranking assets are presented in Table 2-1. The selection appears to provide a balanced representation of asset types and geographical localities, see Figure 2-4. This preliminary list of 23 top-ranking assets formed the basis for the inspections discussed in the next section.

The full results of this initial asset priority ranking are available in Water Technology (2024a).



Table 2-1 Top-23 high ranking road assets

asset_id	road_name	locality	asset_type	Summary
lr0139	Indian Lane	Baradine	Local Road	RTL when people are isolated + Flood affected causeways along entire road. WSC: Bushfire from the WEST.
lr0162	Homeleigh Drive	Coonabarabran	Local Road	Cut off when river floods. Isolates residents + Residents isolated in bushfire.
lr0232	Quaker Tommy Road	Coonabarabran	Local Road	Very high bushfire risk. Single access. RTL. Bushfire from the SOUTH + unknown population + NO EXIT.
-	Baradine West Road	Baradine	Regional Road	Flood affected in multiple locations.
lr0082	Creenaunes Lane	Baradine	Local Road	Significant bushfire affectation. RTL. WSC: Bushfire from the WEST.
lr0084	Cumbil Road	Pilliga	Local Road	Floods in rain events. Major bushfire access road. WSC: fast moving fire + slow travel times.
mrs0396-0185	Warrumbungles Way	Binnaway	Causeway	5 comments! (Flash) flooding, risk to community.
lrs0289-0000_a	Werribee Road	Premier	Causeway	Flash flooding risk to residents. Isolation.
lrs0058-0000	Digilah Road	Dunedoo	Major Culvert	3 comments! Cut during major floods. Long duration.
lr0060	Burma Road	Binnaway	Local Road	Two comments! Bushfire, isolates people. WSC: Bushfire from the NORTH
lr0294	Boooloola Road	Goolhi	Local Road	Flooding destroys the road base and cuts access to essential services
lrs0289-0000_b	Werribee Road	Premier	Causeway	Broken causeways in road, possible issues when floods. Isolation.
lrs0076-000	Coolah Creek Road	Coolah	Major Culvert	Floods in medium floods
lrs0145-0000	Keechs Road	Goolhi	Major Culvert	Flooding cuts road here. No access to essential services.
lr0192	Mow Rock Road	Binnaway	Local Road	Bushfire risk. Isolates people. WSC: Bushfire from the WEST
lrs0180-9999	Merryula Road	Ulamambri	Causeway	River floods in rain event. Residents isolated.
tss0633-000	Lyndock Street	Coolah	Street	Floods in rain event
lr0012-0000	Bakers Lane	Goolhi	Major Culvert	Flooding cuts road here. No access to essential services.
lr0091	Denmire Road	Mendooran	Local Road	4 comments, same person. Bad condition, very storm affected. WSC: Bushfire from the GOONOO SF.
lr0180	Merryula Road (N of Ulamambri)	Ulamambri	Local Road	Road floods in rain event.
lrs0062-0000	Doganabuganaram Road	Neilrex	Causeway	Road cut in rain event.
lrs0123-0040_a	Goolhi Road	Goolhi	Causeway	Major cut off point in flooding. Main access to essential services.
mrs0396-9999	Warrumbungles Way	Coonabarabran	Causeway	Floods in rain event. Major road into Coonabarabran.

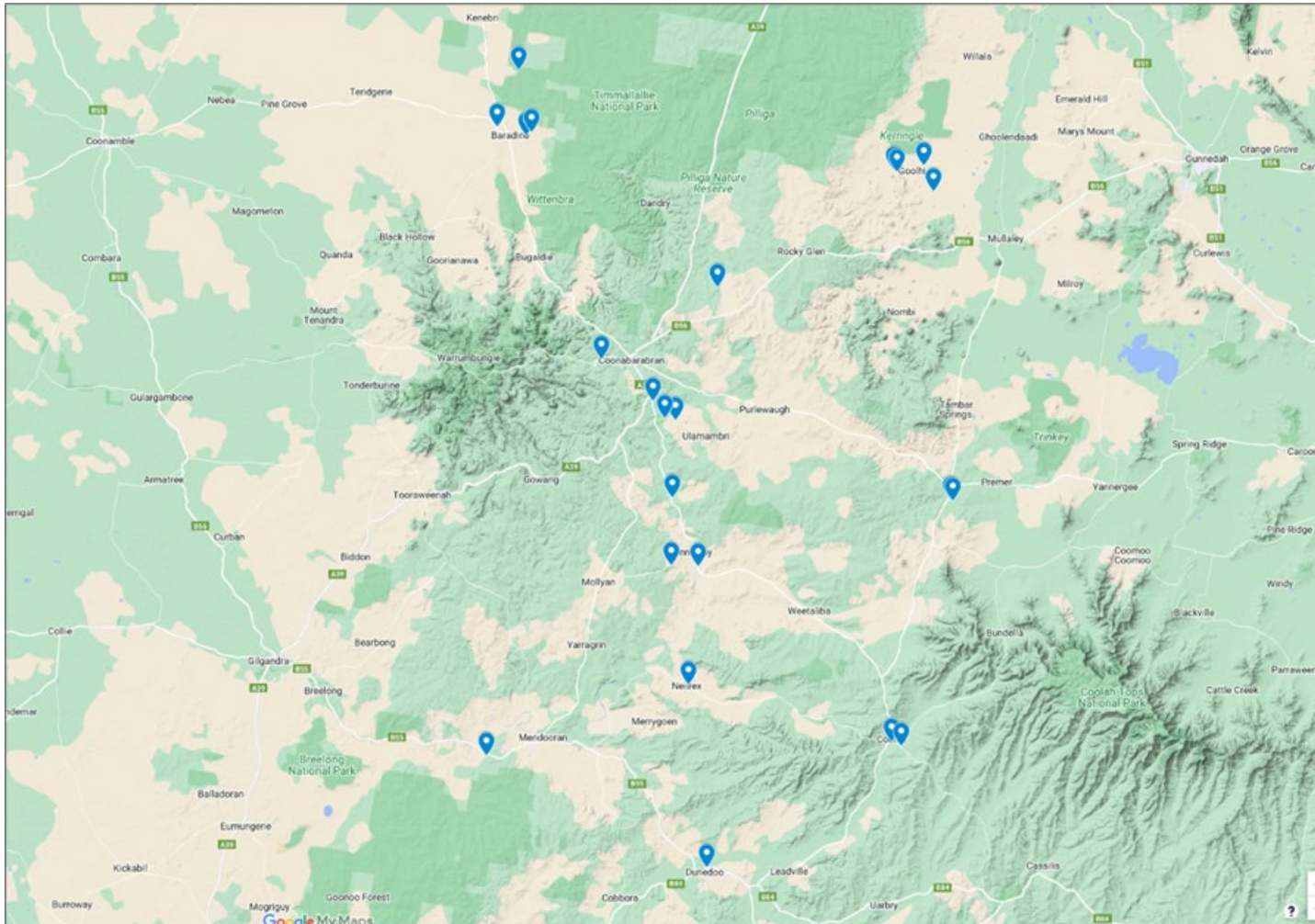


Figure 2-4 Geographical representation of top-23 ranked assets



## 2.5 Transport Infrastructure Field Inspection

As per the project scope of work, asset inspections were required to be carried out for the top-15 highest ranking assets to achieve the following objectives:

- ground-truth the initial desktop-analysis-driven scores for each of the individual scoring parameters; and
- collect condition monitoring information based on visual observation to support decision-making for maintenance and upgrade strategies.

Water Technology set out to inspect all of the 23 assets listed in the preliminary rankings list and is pleased to confirm that this has been achieved in the time available. The inspections were carried out in the week commencing 29 January 2024 and detailed inspections reports have been provided for each individual asset.

As a result of the inspections several scores for various road assets were adjusted, and in two instances, individual assets were merged. Also, two opportunities to finetune the methodology were identified, i.e.:

- Adjust the scoring parameters for “Population Served” to calibrate with population density in the LGA;
- Add an indicator to *Intrinsic Value* for “Potential to Contribute to Risk To Life” (P<sub>RTL</sub>)

These adjustments were applied to the methodology and related scorings were added and adjusted, resulting in a revised ranking of the 23 assets inspected. The resultant priority rankings for the top-23 assets inspected are presented in Table 2-2 (desktop-analysis), Table 2-3 (post-inspection) and Table 2-4 (post-inspection + P<sub>RTL</sub>). Table 2-5 illustrates the progression of asset rankings in this process, with the original desktop-analysis rankings as a starting point.

For a full review of this process and its backgrounds, please refer to Water Technology (2024b).



Table 2-2 Priority Ranking – Desktop Analysis

				<b>RANKING DESKTOP</b>
asset_id	road_name	Locality	Asset-type	1 = Top priority
Ir0139	Indian Lane	Baradine	Local Road	1
Ir0162	Homeleigh Drive	Coonabarabran	Local Road	2
Ir0232	Quaker Tommy Road	Coonabarabran	Local Road	3
-	Baradine West Road	Baradine	Regional Road	4
Ir0082	Creenaunes Lane	Baradine	Local Road	5
Ir0084	Cumbil Road	Pilliga	Local Road	6
mrs0396-0185	Warrumbungles Way	Binnaway	Causeway	6
Irs0289-0000_a	Werribee Road	Premier	Causeway	7
Irs0058-0000	Digilah Road	Dunedoo	Major Culvert	8
Ir0060	Burma Road	Binnaway	Local Road	8
Ir0294	Booolola Road	Goolhi	Local Road	8
Irs0289-0000_b	Werribee Road	Premier	Causeway	8
Ir0192	Mow Rock Road	Binnaway	Local Road	9
Irs0076-000	Coolah Creek Road	Coolah	Major Culvert	9
Irs0145-0000	Keeches Road	Goolhi	Major Culvert	9
Irs0180-9999	Merryula Road	Ulamambri	Causeway	9
Ir0091	Denmire Road	Mendooran	Local Road	10
mrs0396-9999	Warrumbungles Way	Coonabarabran	Causeway	10
Ir0012-0000	Bakers Lane	Goolhi	Major Culvert	10
Irs0123-0040_a	Goolhi Road	Goolhi	Causeway	10
Irs0062-0000	Doganabuganaram/Moore Road	Neilrex	Causeway	10
tss0633-000	Lyndock Street	Coolah	Street	10
Ir0180	Merryula Road (N of Ulamambri)	Ulamambri	Local Road	10



Table 2-3 Priority Ranking – Post Inspection

asset_id	road_name	Locality	Asset-type	RANKING
				POST-INSPECTION
				1 = Top priority
Ir0232	Quaker Tommy Road	Coonabarabran	Local Road	1
Ir0162	Homeleigh Drive	Coonabarabran	Local Road	1
Ir0082	Creenaunes Lane	Baradine	Local Road	2
Ir0091	Denmire Road	Mendooran	Local Road	3
mrs0396-0185	Warrumbungles Way	Binnaway	Causeway	4
Ir0139	Indian Lane	Baradine	Local Road	4
Ir0084	Cumbil Road	Pilliga	Local Road	5
-	Baradine West Road	Baradine	Regional Road	5
mrs0396-9999	Warrumbungles Way	Coonabarabran	Causeway	5
Irs0289-0000_a	Werribee Road	Premier	Causeway	6
Irs0058-0000	Digilah Road	Dunedoo	Major Culvert	7
Ir0012-0000	Bakers Lane	Goolhi	Major Culvert	7
Irs0076-000	Coolah Creek Road	Coolah	Major Culvert	8
Irs0145-0000	Keeches Road	Goolhi	Major Culvert	8
Irs0180-9999	Merryula Road	Ulamambri	Causeway	8
Ir0192	Mow Rock Road	Binnaway	Local Road	9
Ir0060	Burma Road	Binnaway	Local Road	9
Ir0294	Boooloola Road	Goolhi	Local Road	9
Irs0123-0040_a	Goolhi Road	Goolhi	Causeway	9
Irs0062-0000	Doganabuganaram/Moore Road	Neilrex	Causeway	10
tss0633-000	Lyndock Street	Coolah	Street	11
Irs0289-0000_b	Werribee Road	Premier	Causeway	Asset merged with Irs0289-000_a
Ir0180	Merryula Road (N of Ulamambri)	Ulamambri	Local Road	Asset merged with Irs0180-999





Table 2-4 Priority Ranking – Post Inspection + P<sub>RTL</sub>

asset_id	road_name	Locality	Asset-type	RANKING
				POST-INSPECTION + P <sub>RTL</sub>
				1 = Top priority
Ir0232	Quaker Tommy Road	Coonabarabran	Local Road	1
Ir0082	Creenaunes Lane	Baradine	Local Road	1
Ir0162	Homeleigh Drive	Coonabarabran	Local Road	2
Ir0091	Denmire Road	Mendooran	Local Road	3
Ir0084	Cumbil Road	Pilliga	Local Road	4
mrs0396-0185	Warrumbungles Way	Binnaway	Causeway	5
-	Baradine West Road	Baradine	Regional Road	6
mrs0396-9999	Warrumbungles Way	Coonabarabran	Causeway	6
Irs0289-0000_a	Werribee Road	Premer	Causeway	7
Ir0192	Mow Rock Road	Binnaway	Local Road	7
Irs0058-0000	Digilah Road	Dunedoo	Major Culvert	8
Ir0012-0000	Bakers Lane	Goolhi	Major Culvert	8
Ir0060	Burma Road	Binnaway	Local Road	8
Irs0076-000	Coolah Creek Road	Coolah	Major Culvert	9
Irs0145-0000	Keeches Road	Goolhi	Major Culvert	9
Ir0139	Indian Lane	Baradine	Local Road	10
Ir0294	Boooloola Road	Goolhi	Local Road	10
Irs0123-0040_a	Goolhi Road	Goolhi	Causeway	10
Irs0180-9999	Merryula Road	Ulamambri	Causeway	11
Irs0062-0000	Doganabuganaram/Moore Road	Neilrex	Causeway	12
tss0633-000	Lyndock Street	Coolah	Street	13
Irs0289-0000_b	Werribee Road	Premer	Causeway	Asset merged with Irs0289-000_a
Ir0180	Merryula Road (N of Ulamambri)	Ulamambri	Local Road	Asset merged with Irs0180-999



Table 2-5 Priority Ranking – Desktop Analysis > Post Inspection > Post Inspection + P<sub>RTL</sub>

asset_id	road_name	Locality	Asset-type	RANKING DESKTOP 1 = Top priority	RANKING POST-INSPECTION 1 = Top priority	RANKING POST-INSPECTION + P <sub>RTL</sub> 1 = Top priority
lr0139	Indian Lane	Baradine	Local Road	1	4	10
lr0162	Homeleigh Drive	Coonabarabran	Local Road	2	1	2
lr0232	Quaker Tommy Road	Coonabarabran	Local Road	3	1	1
-	Baradine West Road	Baradine	Regional Road	4	5	6
lr0082	Creenaunes Lane	Baradine	Local Road	5	2	1
lr0084	Cumbil Road	Pilliga	Local Road	6	5	4
mrs0396-0185	Warrumbungles Way	Binnaway	Causeway	6	4	5
lrs0289-0000_a	Werribee Road	Premier	Causeway	7	6	7
lrs0058-0000	Digilah Road	Dunedoo	Major Culvert	8	7	8
lr0060	Burma Road	Binnaway	Local Road	8	9	8
lr0294	Boooloola Road	Goolhi	Local Road	8	9	10
lrs0289-0000_b	Werribee Road	Premier	Causeway	8	Asset merged with lrs0289-000_a	Asset merged with lrs0289-000_a
lr0192	Mow Rock Road	Binnaway	Local Road	9	9	7
lrs0076-000	Coolah Creek Road	Coolah	Major Culvert	9	8	9
lrs0145-0000	Keeches Road	Goolhi	Major Culvert	9	8	9
lrs0180-9999	Merryula Road	Ulamambri	Causeway	9	8	11
lr0091	Denmire Road	Mendooran	Local Road	10	3	3
mrs0396-9999	Warrumbungles Way	Coonabarabran	Causeway	10	5	6
lr0012-0000	Bakers Lane	Goolhi	Major Culvert	10	7	8
lrs0123-0040_a	Goolhi Road	Goolhi	Causeway	10	9	10
lrs0062-0000	Doganabuganaram/Moore Road	Neilrex	Causeway	10	10	12
tss0633-000	Lyndock Street	Coolah	Street	10	11	13
lr0180	Merryula Road (N of Ulamambri)	Ulamambri	Local Road	10	Asset merged with lrs0180-999	Asset merged with lrs0180-999



### 3 COMMUNITY STRATEGIC PLAN

#### 3.1 SWOT Analysis

The information and intelligence gathered during the community consultation and stakeholder engagement and the road infrastructure network review, inspection and reporting, provides an opportunity to map the strengths, weaknesses, opportunities and threats associated with the natural hazard vulnerabilities and risks to Warrumbungle Shire’s road-network infrastructure. The key elements identified in the SWOT analysis are presented in Figure 3-1.



Figure 3-1 DRCSP SWOT Analysis



### 3.2 Tactical and Strategic Measures

The review has identified priority areas in Warrumbungle Shire's road-infrastructure network from the perspective of natural hazards with a focus on flood, bushfire, and storm. The analysis was grounded in the **principles of movement and place** by the inclusion of an intensive community consultation and stakeholder engagement component into the process, ensuring the voice of the community is reflected in the outcomes.

A variety of strategies and tactics can be deployed to address the community's need to build and strengthen Council's natural disaster resilience for the next 20 years. Such strategies and tactics should, and do, exist across a broad range of disciplines and areas of interest including natural hazard and emergency risk management plans, mitigation solutions, warning and evacuation systems and of course community-focused resilience initiatives such as formation of social capital, vulnerable people assistance arrangements, community leadership development and education and psychological readiness programs. Warrumbungle Shire Council has established solid foundations for this complex context of disaster risk reduction arrangements, and some improvement opportunities have been identified in the SWOT analysis such as for example the level of local knowledge in the community, especially concerning new entrants and transient population. Table 3-1 summarises these opportunities for improvement which are not strictly related to the road infrastructure network.

This Disaster Resilience Community Strategic Plan (DRCSP) project focused on potential natural hazard resilience improvements for the road infrastructure network in the LGA. A multi-criteria analysis methodology assisted in identifying the highest priority road infrastructure components in the substantial road-asset database of the LGA. Tactical and strategic measures aimed at improving existing road infrastructure deficiencies and treatments for these top-ranking assets have been summarised in Table 3-2. The suggested measures are aimed at any opportunities to mitigate the natural hazard disaster risks to people and property across the spectrum of hazard mitigation, vulnerability reduction and resilience improvement.

The potential strategies and tactics that Warrumbungle Shire Council might consider in supporting the community in building and strengthening its natural disaster resilience for the next 20 years are set out in Table 3-1 and Table 3-2. Such strategies and tactics would add considerable value to Council's mission of sustaining *A peaceful and sustainable way of life built by a strong community* as defined in the Community Strategic Plan 2022/2037 (Warrumbungle Shire Council, 2022).



**Table 3-1 Strategies and Tactics - General**

Opportunity for Improvement / Area	Strategies and Tactics
1. Local knowledge	Leverage the power of local knowledge. Particularly for high-risk areas identified in the road asset review, record existing local knowledge and find ways to distribute among those who would most benefit, including the local communities and the emergency response agencies (e.g. Council's LEMC).
2. Community education	Develop community education programs to target not only the existing resident population but also, and perhaps in particular, new entrants and transient population. The latter would include, for example, construction staff associated with the REZ and similar projects.
3. Vulnerable people	Build and maintain an up-to-date vulnerable persons register. This is an important preparedness step to assist in natural hazard response and recovery and is of particular significance for each of the top-ranking road assets.
4. Community connectedness	Warrumbungle Shire LGA is a very large area with relatively low population numbers, with people and property widely dispersed in small community groups. This presents challenges for authorities to provide PPRR services to the community in a similar way that urban jurisdictions do, and this implies a greater required level of self-sufficiency by residents. Authorities and agencies may support this by leveraging local knowledge (Item 1), community education initiatives (Item 2) as well as by facilitation of community connectedness in each area – with a focus on the identified high-priority areas.
5. New entrants	See 2. Community Education.
6. Transient population	See 2. Community Education.
7. Incomplete data – location of people	Survey at-risk locations to build an accurate database of resident population. (e.g. Quaker Tommy Road). This is closely related to Vulnerable People (Item 3).
8. Incomplete data – natural hazards	Continue to seek opportunities to refine available databases for bushfire and flooding information for Council's land use planning department in developing strategic disaster risk reduction (DRR) initiatives, and to support Council's LEMC and the emergency services departments in their ongoing prevent, prepare, respond and recover (PPRR) activities.
9. State & Federal Government	Continue to engage with State and Federal Government DRR initiatives to maximise the funding and support opportunities that may arise from time to time.
10. Other (regional) LGA's	Maintain connection with similar regional LGAs to stay abreast of "lessons learnt", to share experiences and to possibly collaborate on improvement initiatives.



Opportunity for Improvement / Area	Strategies and Tactics
11. Strategic planning	<p>Land use planning (LUP) plays a central role in defining long-term vision and strategies for the arrangement of land, its use and the associated property, infrastructure, and facilities. As such LUP has a significant impact on future natural hazard and disaster risk for individual places and in the region. Globally, and increasingly in Australia, the LUP function is generally recognised as one of the central driving factors of natural hazard disaster risk reduction (DRR) for communities. Land use planning not only has a direct influence on new development, it can also support DRR initiatives for existing development when opportunities for change present itself and, not to forget, LUP can shape the environmental and climate impacts which may drive natural hazards in the first place.</p> <p>To leverage the role that LUP can play in mitigating natural hazard risk and reducing the risk of disasters requires a clear long-term vision by Council to give direction to land use planning's contributions; it requires the fundamental involvement of the land use planning resources in Council plan- and decision-making processes; and, importantly, it requires the land use planning resources to be proficient at incorporating natural hazard knowledge and skills into their contributions.</p> <p>This is a very high-level, strategic issue and may not be entirely feasible for Council to act on decisively straight away, yet Council could consider including the required thinking into its' strategic intent.</p>



Table 3-2 Strategies and Tactics – Road Assets

MAINLY:

bushfire

flood

Asset_ID	Road_Name	Locality	Asset_Type	Rank	Strategies and Tactics
Ir0232	Quaker Tommy Road	Coonabarabran	Local Road	1	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (bushfire) risks and survey potential solutions.</li> <li>2. Carry out a survey of this road and connected areas to confirm the resident population.</li> <li>3. Build a vulnerable people register.</li> <li>4. Maintain the road surface in good condition.</li> <li>5. Map all connecting routes, develop bushfire evacuation options for different scenarios and distribute to all properties.</li> </ol>
Ir0082	Creenaunes Lane	Baradine	Local Road	1	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (bushfire) risks and survey potential solutions.</li> <li>2. Carry out a survey of this road and connected areas to confirm the resident population.</li> <li>3. Build a vulnerable people register.</li> <li>4. Maintain the road in good condition.</li> <li>5. Bushfire risk: consider clearing roadside vegetation.</li> <li>6. Consider a long-term managed retreat strategy. There are few properties on this road but with significant scrub, a poor evacuation route and no alternative egress/access options, this is a very high-risk area.</li> </ol>



MAINLY:

Ir0162	Homeleigh Drive	Coonabarabran	Local Road	2	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (bushfire) risks and survey potential solutions.</li> <li>2. Carry out a survey of this road and connected areas to confirm the resident population.</li> <li>3. Build a vulnerable people register.</li> <li>4. Maintain the road in good condition.</li> <li>5. Bushfire risk: consider clearing roadside vegetation in areas where it encroaches near the road.</li> </ol>
Ir0091	Denmire Road	Mendooran	Local Road	3	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (bushfire) risks and survey potential solutions.</li> <li>2. Carry out a survey of this road and connected areas to confirm the resident population.</li> <li>3. Build a vulnerable people register.</li> <li>4. Maintain the road in good condition.</li> </ol>
Ir0084	Cumbil Road	Pilliga	Local Road	4	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (bushfire) risks and survey potential solutions.</li> <li>2. Carry out a survey of this road and connected areas to confirm the resident population.</li> <li>3. Build a vulnerable people register.</li> <li>4. Maintain the road in good condition.</li> <li>5. Repair the culvert/causeway at Johns Crossing. This will add an extra access/egress option to this area.</li> </ol>





MAINLY:

mrs0396-0185	Warrumbungles Way	Binnaway	Causeway	5	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (flood) risks and survey potential solutions.</li> <li>2. No immediate structural action suggested: no apparent significant risk to life (RTL) - more detailed information is required to understand the community's perception and to ascertain the risks.</li> </ol>
-	Baradine West Road	Baradine	Regional Road	6	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (flood) risks and survey potential solutions.</li> <li>2. Engage with State Government to address the community's concerns for this road.</li> </ol>
mrs0396-9999	Warrumbungles Way	Coonabarabran	Causeway	6	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (flood) risks and survey potential solutions.</li> <li>2. No immediate structural action suggested: no apparent significant risk to life (RTL) - more detailed information is required to understand the community's perception and to ascertain the risks.</li> </ol>
Irs0289-0000_a	Werribee Road	Premer	Causeway	7	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (flood) risks and survey potential solutions.</li> <li>2. No immediate structural action suggested: no apparent significant risk to life (RTL) - more detailed information is required to understand the community's perception and to ascertain the risks.</li> </ol>



MAINLY:

Ir0192	Mow Rock Road	Binnaway	Local Road	7	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (bushfire) risks and survey potential solutions.</li> <li>2. Carry out a survey of this road and connected areas to confirm the resident population.</li> <li>3. Build a vulnerable people register.</li> <li>4. Maintain the road in good condition.</li> <li>5. Map all connecting routes, develop bushfire evacuation options for different scenarios and distribute to all properties.</li> <li>6. Subject to the outcome of (2), consider widening the road to reduce risk to life (RTL).</li> </ol>
Irs0058-0000	Digilah Road	Dunedoo	Major Culvert	8	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (flood) risks and survey potential solutions.</li> <li>2. No immediate structural action suggested: no apparent significant risk to life (RTL) - more detailed information is required to understand the community's perception and to ascertain the risks.</li> </ol>
Ir0012-0000	Bakers Lane	Goolhi	Major Culvert	8	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard risks and survey potential solutions.</li> <li>2. Clear minor debris build-up on western (upstream) side.</li> <li>3. No immediate structural action suggested: no apparent significant risk to life (RTL) - more detailed information is required to understand the community's perception and to ascertain the risks.</li> </ol>



MAINLY:

Ir0060	Burma Road	Binnaway	Local Road	8	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (bushfire) risks and survey potential solutions.</li> <li>2. Carry out a survey of this road and connected areas to confirm the resident population.</li> <li>3. Build a vulnerable people register.</li> <li>4. Maintain the road in good condition.</li> </ol>
Irs0076-000	Coolah Creek Road	Coolah	Major Culvert	9	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (flood) risks and survey potential solutions.</li> <li>2. No immediate structural action suggested: no apparent significant risk to life (RTL) - more detailed information is required to understand the community's perception and to ascertain the risks.</li> </ol>
Irs0145-0000	Keeches Road	Goolhi	Major Culvert	9	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (flood) risks and survey potential solutions.</li> <li>2. Clear significant debris build-up on southern (upstream) side.</li> <li>3. No immediate structural action suggested: no apparent significant risk to life (RTL) - more detailed information is required to understand the community's perception and to ascertain the risks.</li> </ol>



MAINLY:

Ir0139	Indian Lane	Baradine	Local Road	10	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (bushfire and flood) risks and survey potential solutions.</li> <li>2. No immediate structural action suggested: no apparent significant risk to life (RTL) - the community has flagged this street as critical but as this appears to be a route of convenience with few, if any, resident population, the risks seem contained and very manageable.</li> </ol>
Ir0294	Booloola Road	Goolhi	Local Road	10	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (flood) risks and survey potential solutions.</li> <li>2. No immediate structural action suggested: no apparent significant risk to life (RTL) - more detailed information is required to understand the community's perception and to ascertain the risks.</li> </ol>
Irs0123-0040_a	Goolhi Road	Goolhi	Causeway	10	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard (flood) risks and survey potential solutions.</li> <li>2. No immediate structural action suggested: no apparent significant risk to life (RTL) - more detailed information is required to understand the community's perception and to ascertain the risks.</li> </ol>
Irs0180-9999	Merryula Road	Ulamambri	Causeway	11	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard risks and survey potential solutions.</li> <li>2. No immediate structural action suggested: no apparent significant risk to life (RTL) - more detailed information is required to understand the community's perception and to ascertain the risks.</li> </ol>



MAINLY:

Irs0062-0000	Doganabuganaram/Moore Road	Neilrex	Causeway	12	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard risks and survey potential solutions.</li> <li>2. No immediate structural action suggested: no apparent significant risk to life (RTL) - more detailed information is required to understand the community's perception and to ascertain the risks.</li> </ol>
tss0633-000	Lyndock Street	Coolah	Street	13	<ol style="list-style-type: none"> <li>1. Engage with the resident community to discuss the natural hazard risks and survey potential solutions.</li> <li>2. No immediate structural action suggested: no apparent significant risk to life (RTL) - the community has flagged this street as critical but the risks seem contained and very manageable.</li> </ol>



## 4 RECOMMENDATIONS

Based on, and in addition to the individual suggested opportunities for improvement set out in Table 3-1 and Table 3-2, the following points are raised for summary and consideration:

- A common theme identified in the Strategies and Tactics for the top-23 highest-ranking assets is to *“Engage with the resident community to discuss the natural hazard risks and survey potential solutions”*. It is important to demonstrate to the community that they are being listened to – this is especially true for these highest-ranking assets and it therefore consistently noted across the board for all these assets.
- Those road assets which have been scored with a **high/extreme bushfire risk** have all received the recommendations to *“Carry out a survey of this road and connected areas to confirm the resident population”*, *“Build a vulnerable people register”* and to *“Maintain the road in good condition”*. These are straightforward and low-cost actions which are more than justified in these very high-risk areas.
- The challenge of limited resources is very real in the geographically large area of Warrumbungle LGA which commands a large road network and population numbers widely dispersed in small numbers across many locations. The **extreme bushfire risk** in many places would, in principle, justify mitigating measures but this would in most cases be economically unfeasible. With reference to the suggestion made in Table 3-1 Item 11 *Strategic Planning*, a long-term land use planning strategy that would aim for concentration of resident population in fewer, well-connected areas may have to be considered, especially in view of anticipated increased natural hazard and disaster risk due to climate change. Such a disaster risk reduction strategy could offer many benefits such as a reduction of exposure to natural hazards and facilitation of response and recovery phases.
- It is recommended that the road infrastructure review should be a regular process which is carried out by Council on, for example, a 5-yearly basis. This would enable Council to track progress made with the current project as a baseline, and to stay abreast of the evolution of risk factors such as population numbers (exposure), demographics (vulnerability) and natural hazard profiles due to changing weather patterns (probability) – and their ongoing impact on the disaster resilience of the region’s road infrastructure. The review framework has been deliberately developed to accommodate such regular reviews by local Council staff.



## 5 GLOSSARY OF TERMS

<b>Term</b>	<b>Description</b>
Disaster	A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources (UNISDR, 2009).
Disaster risk	The potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity (UNDRR, 2015).
Exposure	The situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas (UNDRR, 2015).
Hazard	A source of potential harm or a situation with a potential to cause loss. In relation to this report, the hazard is flooding which has the potential to cause damage to the community (UNDRR, 2015).
Land use planning	The process undertaken by public authorities to identify, evaluate and decide on different options for the use of land, including consideration of long term economic, social and environmental objectives and the implications for different communities and interest groups, and the subsequent formulation and promulgation of plans that describe the permitted or acceptable uses (UNISDR, 2009).
Mitigation	The lessening or limitation of the adverse impacts of hazards and related disasters (UNISDR, 2009).
Natural hazard	Any natural process or phenomenon that may cause loss of life or other health impacts, property damage, loss of livelihoods and services, social and economic disruption or environmental damage (UNISDR, 2009).
Preparedness	The knowledge and capacities developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters (UNDRR, 2015).
Prevention	Activities and measures to avoid existing and new disaster risks (UNDRR, 2015).
Recovery	The restoring or improving of livelihoods and health, as well as economic, physical, social, cultural and environmental assets, systems and activities, of a disaster-affected community or society, aligning with the principles of sustainable development and “build back better”, to avoid or reduce future disaster risk (UNDRR, 2015).
Resilience	The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management (UNDRR, 2015).



Response	Actions taken directly before, during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected (UNDRR, 2015)
Vulnerability	The conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards (UNDRR, 2015).

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## 6 REFERENCES

Warrumbungle Shire Council (2022). *Community Strategic Plan 2022/2037 – A peaceful and sustainable way of life built by a strong community.*

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Water Technology (2024b). *23050042\_TM01v01\_Transport Infrastructure Asset Status Report.*

UNISDR (2009). *UNISDR Terminology on Disaster Risk Reduction.* United Nations International Strategy for Disaster Risk Reduction.

UNDRR (2015). *Sendai Framework for Disaster Risk Reduction (2015-2030).* United Nations Office for Disaster Risk Reduction.



# APPENDIX A KEY ROAD INFRASTRUCTURE ASSETS





asset_id	road_name	Locality	asset-type	asset_name
	Albert Wright Road			
	Aquila Road			
Ir1138	Ashby Road	Baradine	Local Road	
Ir0012-0000	Bakers Lane	Goolhi	Major Culvert	
	Balmoral Road			
	Banksia Road			
	Baradine Dandry Road			
mrs0129W-1-0020	Baradine Road	Baradine	Causeway	
-	Baradine West Road	Baradine	Regional Road	
Irs0021-0005	Baradine-Goorianawa Road	Goorianawa	Causeway	
18	Benni Crossing Road	-	Bridge	Benni Crossing Bridge
	Bingie Grumble Road	Coonabarabran		
tss0602-000	Binnia Street	Coolah	Street	
60	Black Stump Way	-	Bridge	Hobbins Gully Bridge
	Blackbums Road			
	Bong Bong Road			
Ir0294	Boooloola Road	Goolhi	Local Road	
tss0629-0000	Booyamurra Street	Coolah	Street	
	Borambitty Road			
Irs0047-0000	Bourke and Halls Road	Binnaway	Causeway	
	Box Ridge Road			
Irs0048-0025_a	Box Ridge Road	Ulamambri	Causeway	
Irs0048-0025_b	Box Ridge Road	Ulamambri	Causeway	
	Brooks Road			
Irs0231-9999	Brooks Road	Ulamambri	Causeway	
Irs0054-0060	Bugaldie-Goorianawa Road	Goorianawa	Causeway	
Irs0054-0075	Bugaldie-Goorianawa Road	Goorianawa	Causeway	
Irs0054-0030	Bugaldie-Goorianawa Road	Goorianawa	Causeway	
	Bullinda Road			
tss0528-0000	Bullinda Street	Binnaway	Street	
	Bungabah Road			
Ir0060	Burma Road	Binnaway	Local Road	
	Butlers Lane	Baradine		
	Cainbill Road			
Irs0067-9999	Caledonia Road	Baradine	Causeway	
Irs0067-0010	Caledonia Road	Baradine	Causeway	
-	Castlereagh Highway	Dunedoo	Highway	
	Cenn Cruaick Road			
	Chapmans Lane			
Irs0071-0035	Cobbora Road	Cobbora	Causeway	
Irs0071-9999	Cobborah Road	Mendooran	Causeway	
Irs0074-0000	Cooks Road	Coolah	Causeway	
Irs0076-000	Coolah Creek Road	Coolah	Major Culvert	
	Creek Road	Baradine		
Ir0082	Creenaunes Lane	Baradine	Local Road	
Ir0084	Cumbil Road	Pilliga	Local Road	
Irs0084-0000	Cumbil Road	Pilliga	Causeway	
	Dandry Road	Coonabarabran		
Ir0089	Dapper Road	Laheys Creek	Causeway	
Ir0246/Ir0089	Dapper Road/Sandy Creek Road	Cobborah	Intersection	
tss0413-0000	Darling Street	Baradine	Street	
Irs0093-0000	Darouble Road	Purlewaugh	Causeway	
Ir0091	Denmire Road	Mendooran	Local Road	
Irs0058-0000	Digilah Road	Dunedoo	Major Culvert	
Ir0058	Digilah Road	Dunedoo	Local Road	
Irs0062-0000	Doganabuganaram Road	Neilrex	Causeway	
Ir0098	Doganabuganaram Road	Neilrex	Local Road	



asset_id	road_name	Locality	asset-type	asset_name
	Dorado Road			
	Dows Lane	Coonabarabran		
	Eagleview Road	Coonabarabran		
Ir0111	Flags Rockedgiel Road	Premer	Local Road	
	Galashiels Road			
-	Golden Highway		Highway	
Irs0123-0040_a	Goolhi Road	Goolhi	Causeway	
Irs0123-0040_b	Goolhi Road	Goolhi	Minor Culvert	
	Guinema Road			
Irs0129-0015	Gundare Road	Coolah	Causeway	
	Hawkins Road			
Ir0162	Homeleigh Drive	Coonabarabran	Local Road	
	HoneyPot Road	Coonabarabran		
Ir0020	Hotchkiss Road	Baradine	Local Road	
Ir0139	Indian Lane	Baradine	Local Road	
	Iona Road			
Irs0145-0000	Keechs Road	Goolhi	Major Culvert	
-	Kenebri Road	Baradine	Regional Road	
	Kilaree Road			
	Kurrajong Road			
Irs0158-0055	Leaders Road	Binnaway	Causeway	
5	Leaders Road	Binnaway	-	Binnaway Low Level Bridge
tss0633-000	Lyndock Street	Coolah	Street	
	Mancers Lane			
Ir0178	Merotherie Road	Leadville	Local Road	
Irs0180-9999	Merryula Road	Ulamambri	Causeway	
Ir0180	Merryula Road (N of Ulamambri)	Ulamambri	Local Road	
	Moorefield Road			
Ir0192	Mow Rock Road	Binnaway	Local Road	
Ir0193	Mt Bangalore Road	Mendooran	Local Road	
	Mt Hope Road			
	Nalders Road			
tss0729-0000	Namoi Street	Coonabarabran	Street	
tss0402-0000_b	Namoi Street	Baradine	Street	
	Narrawa Newell Road			
Irs0205-0000	Narrawa Newell Road	Coonabarabran	Causeway	
	Narrawa South Road			
	Neringa Road	Coonabarabran		
Irs015-9999	North Pine Ridge Road	Narrangerie Valley	Causeway	
not identified	not identified	Goolhi	Local Road	
	Nullawa Road			
	Observatory Road			
	Old Common Road	Coonabarabran		
	Old Yearinan Road			
tss0402-0000_a	O'Neills Lane	Baradine	Street	
Irs0221-0015	Pandora Pass Road	Coolah	Causeway	
Irs0221-0020_a	Pandora Pass Road	Coolah	Causeway	
Irs0221-0020_b	Pandora Pass Road	Coolah	Causeway	
	Patrick Road			
Irs0227-9999	Pine Ridge Road	Narrangerie Valley	Causeway	
46	Pine Ridge Road	-	Bridge	Lawson Crossing Bridge
mrs0129E-0080	Purlewaugh Road	Ulamambri	Regional Road	Baby Creek
Ir0232	Quaker Tommy Road	Coonabarabran	Local Road	
	Salaks Road			
	Saltwater Road			
	Sirius Lane	Coonabarabran		
Irs0257-0035	Spring Ridge Road	Dunedoo	Causeway	
	State Forest Road			



asset_id	road_name	Locality	asset-type	asset_name
	Stony Point Road	Coonabarabran		
	Three Hills Road	Coonabarabran		
	Tibuc Road			
	Tillie Willie Road			
	Timor Dam Road			
Irs0019	Tooraweenah Road	Mendooran	Local Road	
Irs0019-0010	Tooraweenah Road	Mendooran	Causeway	
	Tothills Road			
Ir0279	Ulungra Springs Road	Mendooran	Local Road	
Irs0296-0000	Uphills Lane	Purlewaugh	Causeway	
Ir0155	Upper Laheys Creek Road	Laheys Creek	Causeway	
tss0409-0000_c	Walker Street	Baradine	Street	
	Wangmans Road	Baradine		
	Warkton Road			
mrs0396-0185	Warrumbungles Way	Binnaway	Causeway	
mrs0396-9999	Warrumbungles Way	Coonabarabran	Causeway	
Irs0289-0000_a	Werribee Road	Premer	Causeway	
Irs0289-0000_b	Werribee Road	Premer	Causeway	
	Weston Way SF Road	Baradine		
I20292	Wingabutta Road	Binnaway	Local Road	
Ir0293	Wongoni Road	Mendooran	Local Road	
Irs0295-0015	Wool Road	Goolhi	Causeway	
6	Worrigal Street	Baradine	Bridge	Baradine 150 Year Bridge
mrs0129W-2-0010	Worrigal Street	Baradine	Causeway	
	Wyuna Road			
	Yaminbah Road			
Ir0051	Yarrow Road	Mendooran	Local Road	
Irs0051-0000	Yarrow Road	Mendooran	Causeway	
	Yearinan Station Road			



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