



Asset Management Plan for Transport and Stormwater Drainage 2022/2023

This document forms part of Council's Resourcing Strategy.
It is updated annually to support Council's Operational Plan.

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1. Executive Summary

Transport Infrastructure

Transport infrastructure is essential to the local community for access to schools and services as well as to the local economy for the efficient transport of agricultural products.

Roads are also the biggest area of Council's expenditure and the most valuable portion of its asset portfolio, so the effective management of them is critical to Council's financial sustainability.

Council is responsible for 1085 km of roads consisting of:

- Regional Road – 122 km (sealed road)
- Urban Road – 47 km (sealed road)
- Local Road – 400 km (sealed road)
- Local Road – 456 km (gravel road)
- Local Road – 60 km (dirt or 'formed' road)

Council is also responsible for 14 bridges, 25 box culverts, 1402 pipe culverts (minor), 34km of kerb and gutter and 9km of footpaths.

Together, these assets have a replacement value of over \$150M.

Council also maintains 20km of the Newell Highway and 101km of the Mid-Western Highway (state roads) under contract to RMS. This is outside the scope of this AMP because it is not a Council asset.

Condition data indicates that Council's transport network is in generally good condition. This is enabling Council to focus on upgrading the network (e.g. widening narrow sealed roads, building new footpaths and kerb and gutter).

However, Council does need to review some programs. Of particular concern is funding for local road reseals which may not be sufficient to prevent premature failure of road pavements in wet periods. Council also needs to review the allocation of funding between programs and clarify available budgets so that its limited funding is directed to the top priorities.

A number of improvement actions are listed throughout the document. These are summarised in the Improvement Plan in the Resourcing Strategy. It is important that Council pursues these if it is to deliver sustainable best value.

Urban Stormwater

Council's urban stormwater network consists of 3.4km of pipes and 129 pits. This is valued at around \$8.6M. There are some areas that are under capacity, however as a whole the network is in reasonable condition (failures are rare) so this is a lower priority for improvement actions at present.

1.1 Context and Purpose of this AMP

Council has adopted a systematic approach to prioritising its limited resources across all its activities via the *Integrated Planning and Reporting (IPR) Framework*, set out under the NSW Local Govt. Act.

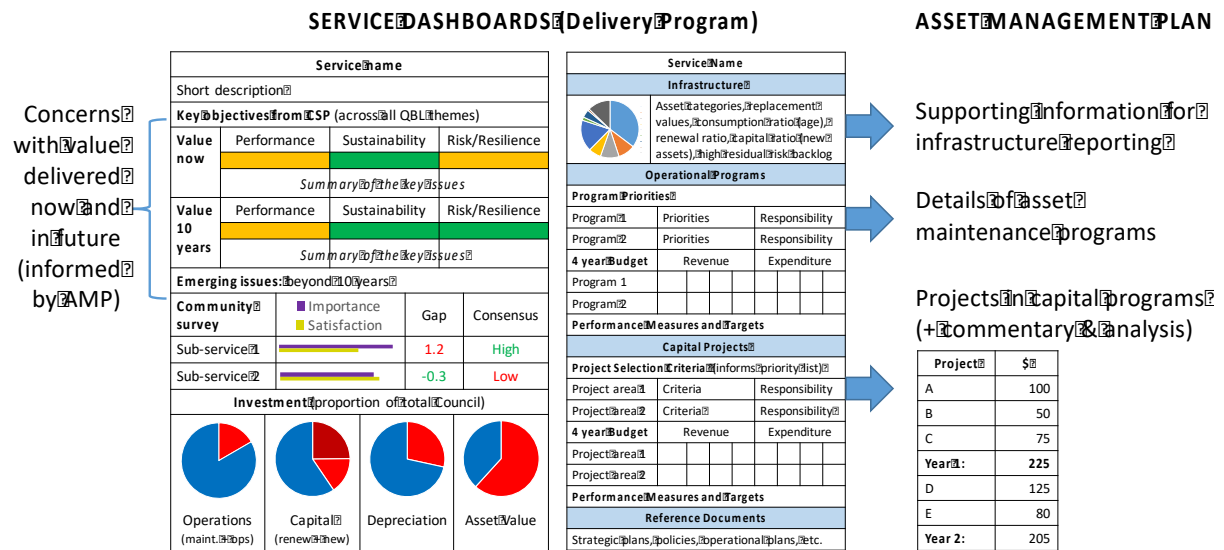
Service Dashboards (part of Council's Delivery Program) present a 'big picture summary' highlighting issues of concern with the value Council can provide now and in future with its available resources.

The second page of the Dashboards summarises the infrastructure supporting the service and then identifies the main program areas Council undertakes to provide this value to the community, including budgets (aligned with the Long Term Financial Plan) and performance measures for each (i.e. the adopted Performance Targets as well as measures of other activities).

This AMP then provides the detail behind each of the programs, which are classified as either:

- 'operational' (ongoing activities like pothole patching, grading unsealed roads, etc.) or
- 'capital' (building new, upgraded or renewed assets).

This more detailed analysis in the AMP informs the 'big picture summary' of key concerns on page 1 of the Dashboards as well as supporting information relating to infrastructure asset reporting.



In summary, the primary purpose of this AMP is to support Council’s decision-making about its activities relating to transport and stormwater assets by clarifying the current situation and documenting its future programs (actions in the Delivery Program and Operational Plan) in a simple manner.

Council’s overall objective is to deliver *sustainable best value* (as set out in the Policy of that name).

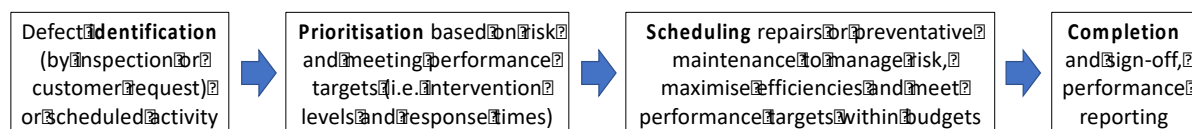
The AMP also identifies risks and treatment methods as well as assumptions about valuation and depreciation of assets that help make informed decisions about financial sustainability.

2. Operational Programs (Maintenance)

Service Dashboards summarise the key maintenance program areas and budgets. Maintenance activities help ensure Council's infrastructure:

- performs effectively (meeting user needs and expectations and the performance targets set by Council)
- does not fail prematurely (which isn't sustainable and costs more in the long run)
- does not present an unacceptable risk and so increase Council's public liability risk.

A systematic approach to managing these activities (particularly scheduling repairs rather than taking a reactive approach) creates significant efficiencies, enabling Council to better satisfy points above and so deliver better value with available resources. Council is developing a computerised *maintenance management system* to drive the following process:



ACTION 9.2 in the Improvement Plan in the Resourcing Strategy is:

Implementation of a maintenance management systems for roads and footpaths
(implement Council policies on roads and footpaths)

Council's maintenance management system is described in its policies on roads and footpaths Appendix 1. The elements of the system are outlined below.

As discussed in section 4.3.1 of the Resourcing Strategy, this system has been modelled on the StateWide Best Practice Manuals for Roads, Footpaths and Gathering Information to ensure that Council effectively manages risks to users of the infrastructure and minimises its public liability risk.

There are benefits with such a system being applied consistently across neighbouring councils (collaboration among staff, technical backup regarding computer systems in time of leave or staff turnover, consistency in the service provided between councils, etc.).

ACTION 9.3 in the Improvement Plan in the Resourcing Strategy is:

Seek consistency in maintenance systems / standards across MLA.

2.1 Defect Identification

Some maintenance activities such as cleaning of the CBD are scheduled (section 2.3) on a pre-determined basis, but most are undertaken following the identification of defects, the primary channel being asset inspections, but also customer requests and advice from staff (which will either be treated as for inspections or customer requests, depending on the experience of the employee).

2.1.1 Formal Inspections

Council has established inspection schedules in the Roads and Footpaths Policies (Appendix 1).

Performance targets in the *Service Dashboards* includes reporting on compliance with these inspection schedules.

2.1.2 Customer Requests

When Council receives a customer request regarding a **maintenance defect on a road**, the officer receiving the information will ask questions to determine the risk rating (section 2.2), including:

- What is the nature of the defect? (physical description)
- What road is it on? (road hierarchy)
- Where is the defect on the road? (location)

- Any other issues impacting on the risk (e.g. on a bend, etc.).

Where a risk rating is likely to be high a Council officer will inspect the site and record the defect as with any other inspection (after which time it will be treated as any other defect).

Where the defect is very likely to be of a lower risk the Council officer responding to the request may record the defect without a site inspection. It will then be scheduled as per section 2.3.

When Council receives a customer request regarding a **maintenance defect on a footpath**, the officer receiving the information will ask questions to determine the risk rating (section 2.2), including the location of the defect, the type of problem (trip hazard, unevenness, slipperiness) and also if there are any environmental considerations such as lighting and/or shadows.

The customer will be advised of the outcome of the request in accordance with Council's Customer Service Standards.

2.2 Prioritisation of Defect Response

Once a defect has been identified, a risk-based score will be assigned to facilitate scheduling of repairs (section 2.3). The way this is done differs for roads and footpaths, as discussed below.

Note that while this framework is focused on public liability risk, Council's maintenance priorities are also driven by concerns about performance (e.g. aesthetics determines street sweeping programs) and sustainability (e.g. preventative maintenance to avoid premature failure determines programs to clear table drains and pipe culverts).

The StateCover Best Practice Manuals assign a risk to defects as follows:

- **Road risk rating** is based on adding scores for the defect location (e.g. is it on the shoulder or traffic lane?), road hierarchy (how many vehicles use it?) and physical description of the defect (pothole, loose stones, dead animal, etc.)
- **Risks with footpaths** are assessed using a matrix considering the physical risk (trip size, unevenness, slipperiness) and environmental risks (lighting and shadows) as well as the number of people using the footpath.

Details of these processes are included in the Policies.

Note that the road hierarchy (part of road risk rating) needs clarification, as discussed in section 6.

2.3 Scheduling of Maintenance Activities

Once the risk rating for the defect on the road or footpath has been calculated, Council then needs to take action commensurate with the level of risk.

The Roads and Footpath Policies establish timeframes for responding to defects, depending on the level of risk.

2.4 Performance Measurement and Reporting

The *Service Dashboards* include performance measures relating to the compliance with Council's maintenance management system (above):

- compliance with inspection schedules (including inspections following customer requests)
- percentage of defects that were responded to within the nominated response time (the target being 90%, but this is subject to review given the system is only newly being implemented) and
- reporting on the activities undertaken (e.g. number of potholes patched).

3. Capital Works Programs (Renewal, Upgraded and New Assets)

The *Transport Service Dashboard* summarises Council's main capital works programs relating to transport assets.

This AMP has the detail behind these capital programs, in particular:

- commentary on the current situation (where are the issues of concern?)
- forecasts for the future (will the situation get better or worse?) based on funding allocated in the Long Term Financial Plan for the program
- additional criteria for project prioritisation (where applicable)
- further details about funding arrangements (particularly sources of and potential for grants as well as restrictions for ongoing grant programs)
- performance measures and targets (most are indicative only at this time, Council needs to clarify a number of issues – in the improvement actions – to determine what is achievable).

The **Priority Projects List in Appendix 2** is a prioritised list of particular *projects* within each *program*. While those in the current year are 'locked in' to the Operational Plan, those in future years are indicative only. They are included to facilitate Council decisions about re-prioritising resources between program areas and to inform investigation and design activities (which will then inform more accurate estimates of projects prior to their inclusion in the Operational Plan).

Council may identify some projects as unfunded. These are included on the basis that Council may change its funding priorities in future or there may be grant funding opportunities (in which case it is important to clarify project priorities and undertake planning to ensure projects are 'shovel ready').

It is important to recognise that the level of detail in this framework will improve over time. In particular, future lists will indicate the portions of a project that is 'renewal' versus 'upgrade' (or new assets) to facilitate projections for the Renewal Ratio and reporting under Fit for the Future.

ACTION 9.5 in the Improvement Plan in the Resourcing Strategy is:

Annual review of capital works programs including priority projects, budgets, funding to achieve performance targets for renewal, priorities for upgraded/new assets, longer term outlook (include in up-to-date Asset Management Plan).

Review of Program Budgets

In summary, Council budgets for transport are as follows.

Regional Roads (Henry Lawson Way, Mary Gilmore Way and Gooloogong Road) are funded via the Block Grant (which is ongoing), REPAIR programs (which NSW Government has flagged its intention to review this in future) and other grants. This is why regional roads are considered separately in what follows. Council can also spend its own funds on regional roads (although it rarely does).

Local Roads are funded by a number of programs:

- Financial Assistance Grants specifically for roads (totalling just under \$1M p.a. in 2018/19, indexed to increase with CPI)
- Roads to Recovery (varying year to year, current program is being reviewed but an average amount of \$1.025M p.a. is assumed into the future)
- General Rates
- Other grant programs.

Council has historically included an item in its budget for 'Town and Shire Works' (\$650,000 in 2018/19). This has revenue identified (it is generally covered by grants) and its expenditure is classified as operational. In reality, it is generally used for a mix of operations and capital activities (which are then accounted for separately based on actual works undertaken). Further, it is used for sealed and unsealed roads.

Council has also historically included a ‘Rural Roads’ program in its budget (\$652,498 in 2018/19) which is generally capital works although some works are operational (maintenance).

For the purposes of the following assessments, it is assumed ‘town and shire works’ are operational and ‘rural roads’ are capital. This is reflected in the Service Dashboards. However, the actual allocation of funding to different programs needs to be clarified to facilitate better planning.

ACTION 9.1 in the Improvement Plan in the Resourcing Strategy is:

Review budgeting for roads to clearly distinguish: operations and maintenance from capital works; sealed from unsealed roads; potential grants from what is ‘locked in’ to budgets (align this with Dashboards and Asset Management Plans).

After this is complete, Council should reconsider the allocation of budgets considering the issues discussed in the following sections.

3.1 Resealing of Sealed Roads

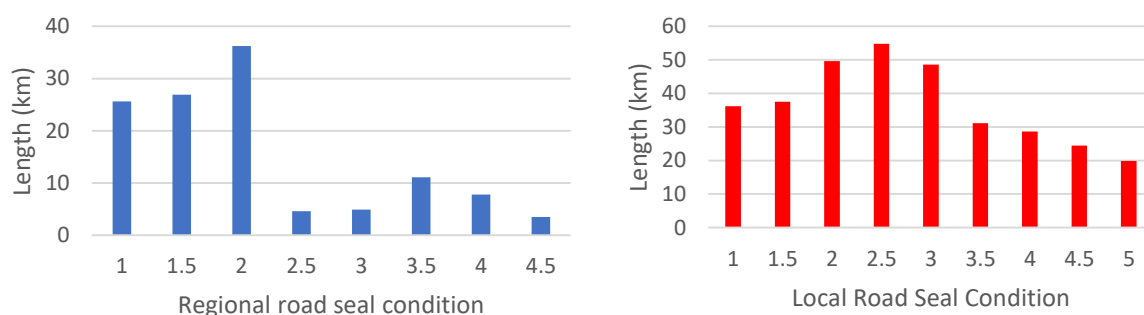
Weddin Shire Council has a significant sealed road network, totalling around 569km. Of this, 122km is classified as ‘regional’ road. The remaining 447km is ‘local’ roads (47km urban, 400km rural).

Resealing or ‘resurfacing’ is *the* most important activity Council undertakes in relation to its sealed road network. The bitumen surface of sealed roads oxidises, so it needs to be renewed periodically to maintain a waterproof layer to keep water out of the gravel pavement beneath and so prevent the pavement from failing prematurely.

Industry best practice is that resealing should be undertaken every 20 years or so, however Council’s current assumptions for service life is 26-28 years (based on current cycles with available budgets).

Seal condition data for regional and local roads is presented in the charts below (condition 1 is new, condition 5 is very poor). *Note that this is 2015 data and does not reflect work done since then.*

As can be seen, regional road seals are generally good, but a significant portion of local road seals were rated as being in poor condition. It is important to consider this in the context of the proposed budgets over the next 10 years.



The cost of renewing the 11km of regional road seals in poor condition (4 or 4.5) will be around \$315,000 (77,000m² @ \$4/m²). The 20km in condition 2.5 to 3.5 (likely to need renewing in the next 10 years) will cost a further \$560,000 or so.

Council is forecasting that it will spend far more than this over the next 10 years, as shown in the budgets below.

As budgeted:											
ROAD	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	TOTAL
MR237 reseals and Forbes St	50,000										50,000
MR398 reseals	00,000	41,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	41,000
MR236 reseals	50,000	00,000	20,000	00,000	00,000	50,000	50,000	00,000	00,000	00,000	970,000
MR239 rehabilitation/reseals	63,000	63,000	48,000	94,000	10,000	78,000	74,000	48,000	22,000	22,000	609,000
Resealing all these roads:											
	L	W	A	say \$4/m2	difference						
MR237 Gooloogong	31490		7	220430	81,720	731,720					
MR236 HLW Way (Forbes)	14920		7	104440	17,760	23,240					
MR239 HLW Way (Young)	19390		7.3	141547	66,188	403,812					
MR398 Mary Gilmore	52650		8	421200	684,800	75,800					

Local Roads

The cost of renewing the 72km of poor condition local road seals in condition 4-5 will be around \$1.4M (350,000m² @ \$4/m²). If this has not been completed since 2015, it should be done soon.

The 80km in condition 3 to 3.5 (likely to need resealing over the next 10 years) will cost around \$1.9M to reseal. Council is forecasting to spend around \$2.2M over this period (as shown below).

As budgeted:											
ROAD	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	TOTAL
All local roads	200,000	10,000	10,000	10,000	10,000	22,000	30,000	50,000	50,000	50,000	242,000
Resealing all these roads:											
	L	W	A	say \$4/m2	difference						
All sealed (other than regional)				2712576	0,850,304	8,608,304					

Depending on works done since 2015, this may be sufficient. The next condition assessment for roads is due in 2020, but the amount of seals in poor condition should be reviewed prior to this to determine if an accelerated program is required to address the backlog. If required, some of the funds currently assumed to be utilised in pavement renewal and upgrade programs (section 3.2) could potentially be transferred.

The key issue if Council is to deliver 'sustainable best value' from its resealing programs is that they need to be driven by condition data (inspections) rather than allocating a similar amount each year.

Council has identified the need to establish performance targets in *Service Dashboards* to renew surfacing when it reaches a certain condition, and will define these over the coming year.

Council should also start to identify the roads to be resealed in the following year in the Priority Projects List (Appendix 2) so these are then 'locked in' to the Operational Plan (this will help to ensure there is a review of seal condition undertaken in preparation for the budget to ensure sufficient funds are available).

ACTION 9.6 in the Improvement Plan in the Resourcing Strategy is:

Review resealing programs so they are driven by condition (regional roads can potentially reduce but local roads may need an increase) to maximise service life but also avoid premature failure of pavements. Identify reseal projects for the coming year in AMP.

It is important to note that some roads may not be resealed even once they reach this condition rating if they are identified in the renewal and upgrade program (section 3.2).

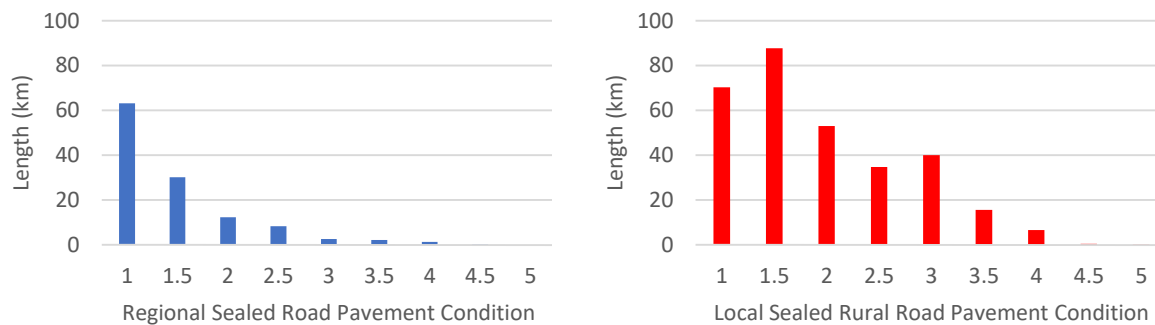
The renewal and/or upgrade of pavements can help balance the 'peaks and troughs' in resurfacing expenditure, although Council also needs to be mindful of the impact that major peaks and troughs in pavement programs can have on Council work crews.

Note that the entire resealing program is classed as asset renewal: widening a seal or adding a new seal to an unsealed road are 'renewal and upgrade' (section 3.2) as is any 'heavy patching' (repairing isolated failures) prior to the resealing.

3.2 Rural Sealed Roads Renewal and Upgrade Program

Unlike resurfacing (which is all renewal), upgrades (such as widening of shoulders on narrow rural roads) make up a considerable portion of Council's broader roads programs.

Council needs to consider what mix of renewal and upgrade works will deliver the ‘sustainable best value’. These decisions must start by considering the condition of Council’s rural road network, shown in the charts below.



As can be seen, there is very little pavement in poor condition on the regional road network (only 370m in condition 4.5 and 1.4km in condition 4) and little more on the local road network (only 6.6km in condition 4 and 710m in condition 4.5 and 5).

These figures may have changed since the 2015 condition assessments, not least as a result of damage due to the 2016 floods and subsequent repair works (grants for works on local sealed and unsealed roads were in the order of \$2.34M).

Regional Roads

Given that regional road pavements are in good condition, and there is potentially surplus funding allocated to resealing regional roads (as discussed in section 3.1), it is important that Council considers a strategy for upgrading regional roads (i.e. which sections are a priority for shoulder widening in particular) as well as reviewing the need for any major works on bridges and major culverts (section 3.7) or other rural culverts (section 3.8).

The remaining narrow sections of Gooloogong Road have been widened, so the next priorities to consider are Henry Lawson Way, which is only 7m to Forbes, 7.3m to Young. Currently, the Priority Projects List (Appendix 2) does not identify specific projects. There is a need to do so to provide future direction for planning. This will also inform performance targets in future revisions of this AMP and the *Service Dashboard*.

ACTION 9.7 in the Improvement Plan in the Resourcing Strategy is:

Prepare a renewal and upgrade strategy for regional roads identifying the sections that Council will focus on (for widening, etc.) over the next 10 years.

Local Roads

Allocation of funding for local roads is more complex because the same funding pool covers sealed rural roads as well as unsealed roads (section 3.3), works in urban areas (sections 3.4-3.6), culverts (section 3.8) as well as other assets and activities. Increasing allocation to resealing (section 3.1) should be a priority.

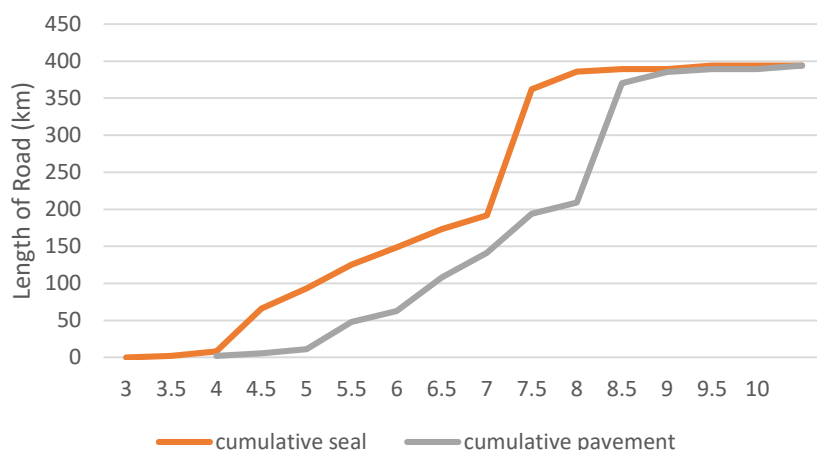
Budgets also need to be clarified as per ACTION 9.1 above.

Priorities across rural roads (both sealed and unsealed) are best determined in the context of an asset hierarchy that differentiates between high and low traffic roads, as well as those that are a key connection between localities.

A hierarchy has been defined in the Roads Inspection Policy (Appendix 1), but this needs to be applied to the network (i.e. individual roads must be classified), and the relationship of this hierarchy to that utilised in the road asset register also needs clarification. This is discussed in section 6.

With the hierarchy clarified, the next step will be for Council to consider how it can get in key program areas with the available funds. For sealed roads, the key issue after reseals and renewal of pavements in poor condition (as noted above, these are relatively minor) is shoulder widening.

Council's 10 year proposed program for FAGs grants allocates around \$2.1M towards widening shoulders. Based on current estimates of around \$100,000/km for such works this will mean that around 21km of the network will be upgraded. The chart below shows that there are around 200km of narrow sealed roads (i.e. with a seal less than 7m) that potentially need widening:



Using the hierarchy from the asset register, though, around 44km of the 200km of narrow-sealed roads is on those carrying higher volumes of traffic (as at 2015, the time of assessment).

Quondong Road is classified as a category 3 (the highest) and has 1.7km length as only a 5 or 5.5m seal. Of the category 4 roads (next highest), 42km was under 7m seal width. All roads nominated in future budgets (the Priority Projects List in Appendix 2) for widening are in this category.

Council should consider including prioritising projects for the upgrade of all narrow-sealed roads on category 4 roads (or equivalent if the hierarchy is amended) in the Priority Projects List (Appendix 2). Priorities for upgrade should, where possible, be aligned with works to renew pavements in poor condition as well as resealing as this is more efficient.

Once the above actions have been undertaken, Council will be in a position to establish performance targets for road renewal and upgrades.

Council has an opportunity to strengthen grant applications for road upgrades by developing a consistent prioritisation scheme with neighbouring councils. It will be possible to then develop a 'Regional Transport Strategy' (or similar document). A recent example of this was the joint application (with Forbes Shire Council) for Bewley's Rd which needed work in both local government areas to upgrade it as a freight route.

ACTION 9.8 in the Improvement Plan in the Resourcing Strategy is:

Explore the opportunity to develop a consistent prioritisation method for rural road upgrades with neighbouring councils to support grant applications via a 'Regional Transport Strategy' or similar document.

In the medium term, it will be important that Council undertake some longer-term modelling of renewal need for pavements e.g. over 20 or 30 years. The shorter-term work to clarify budgets and condition (in particular, deterioration of pavements over time) will help inform this.

3.3 Unsealed (Gravel) Rural Roads

Weddin Shire Council has a significant unsealed local road network, totalling around 516km.

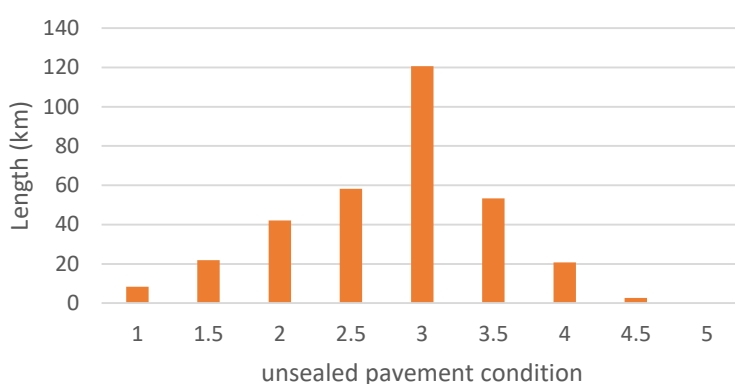
Of this, 456km is classified as ‘gravel’ road and 60km is classified as ‘formed’ or ‘natural’ road only (the difference being that there is no gravel placed on the latter).

The two key activities Council undertakes on these roads are:

- maintenance grading to address surface defects and reshape the road to improve drainage (an ‘operational’ activity, discussed in section 2) and
- gravel re-sheeting (a ‘capital’ activity to renew the pavement asset on gravel roads) which is essential to ensure roads are trafficable in the wet and also to improve the way the surface performs under traffic (i.e. to reduce deterioration and the need for more grading).

Unsealed gravel pavements do not last as long as sealed roads because the gravel erodes by water and wind. Depending on the volume of traffic, rainfall, maintenance techniques, etc. a 100mm deep gravel pavement will last between 10 and 20 years.

The condition of the unsealed road network as assessed in 2015 is shown below (*note: 132km was not rated*).



It is important to note that the condition of the network would have changed significantly since this time as a result of normal deterioration (as above, gravel pavements are short-lived) but also the works undertaken following the 2016 floods, funded by Natural Disaster Assistance Grants.

Council is specifically budgeting to spend around \$200,000 p.a. on average over the next four years on resheeting unsealed roads from the Financial Assistance Grant for roads, however there is a portion of the \$650,000 ‘Town and Shire Works’ budget spent on unsealed roads at times, too (clarifying this expenditure is noted as Action 9.1 in the Improvement Action Plan).

At the current rate Council is budgeting such works (\$13,200/km), the total cost of gravelling the 457km of gravel roads is around \$6.07M. With a budget of only \$200,000 p.a., this means Council can only afford to add new gravel to roads once every 30 years on average. While this may be enough for some low-traffic roads, those with larger traffic volumes will not last this long.

A further issue is that Council is generally only adding 50mm of gravel to its unsealed roads. This has been highlighted as an issue to review (other councils generally add 100mm at a time – this deeper layer costs a little more in materials, but is more economical in terms of the use of plant and labour).

The next step for Council in determining how it is to deliver ‘sustainable best value’ from its unsealed road network is to review the issues noted above.

ACTION 9.9 in the Improvement Plan in the Resourcing Strategy is:

Prepare a sustainable program for gravel re-sheeting of unsealed roads that draws on current levels of service, increases thickness of resheets (100mm not 50mm) and prioritises work in future based on road hierarchy and criticality of the route

It is important to note, though, that actual renewal needs will vary from year to year so (as with resealing of sealed roads) actual programs should be driven by condition data (inspections).

The proposed budgets for the following 10 years are as follows. The proposed nil expenditure in 2025/26 and 2026/27 needs to be considered based on the condition of the network at the time.

	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	TOTAL
Gravel Resheeting	\$80,000	\$200,000	\$15,000	\$10,000	\$40,000	\$40,000	\$40,000			\$40,000	\$765,000

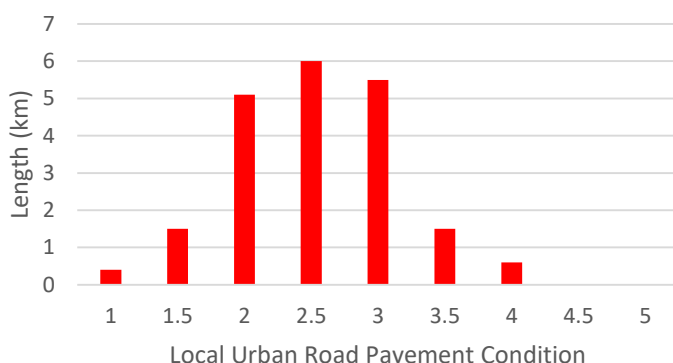
Once Council has prepared a sustainable program for gravel resheeting and reviewed expenditure in the various road programs (ACTION 9.1) it will be in a position to establish performance targets for unsealed roads.

3.4 Roads in Urban Areas (Grenfell and Villages)

Only a small portion (33km out of 421km) of Council’s sealed road network is in urban areas.

A further 9km of unsealed roads is in urban areas (at this stage this has not be included in the analysis below as there is no condition information on most of it).

The chart below shows the condition of sealed roads in urban areas (*note that this only covers 21km as another 15km was not rated – this needs to be understood prior to any detailed planning*).



Comparing the condition of urban to rural roads (the chart in section 3.2) highlights that Council has perhaps spent more on renewal of rural road pavements than urban ones in recent years (given there are few condition 1 or 1.5 roads in urban areas, but more in rural).

Still, there is only 600m rated in condition 4 (which would cost less than \$50,000 to renew) and Council has allocated an average of \$90,000 to \$125,000 p.a. for Grenfell and Village streets construction over the next four years, and is forecasting to continue to do so over 10 years.

The total replacement value of urban streets (pavements and seals) is listed in Council’s asset register as \$2.7M. This means Council will potentially spend almost 50% of the replacement value of these assets over the next 10 years (far more if the reconstruction of Main Street is considered).

The proposed budgets for the following 10 years are as follows.

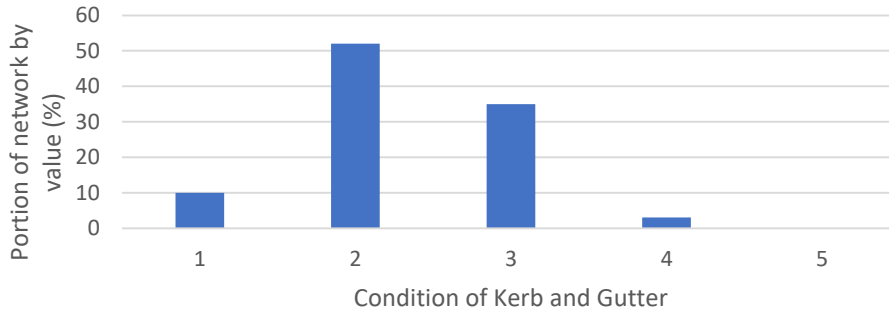
	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	TOTAL
Grenfell Streets Construction	\$20,000	\$90,000	\$00,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$20,000	\$50,000	\$1,090,000
Village Streets Reconstruction	\$10,000	\$5,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000		\$30,000	\$40,000	\$70,000
											\$1,260,000

Projects are identified in the Priority Projects List in Appendix 2. Where possible, these will be aligned with resealing (section 3.1) and kerb and gutter projects (section 3.5) to improve efficiency.

Street lights are not a Council asset, although Council does pay for electricity charges. Upgrading street lights in Grenfell has been identified as a Category ‘C’ priority (unable to be funded at this time) in Council’s budget priority list.

3.5 Kerb and Gutter

Council has 34km of kerb and gutter. The condition of these assets is shown in the chart below.



Council is investing a considerable amount in constructing new kerb and gutter of around \$50,000 p.a. increasing to \$70,000 p.a. over 10 years as shown below.

	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	TOTAL
Grenfell Kerb and Gutter (WSC)	\$50,000	\$50,000	\$55,000	\$60,000	\$60,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$625,000
Grenfell K&G (Resident Contributions)	\$40,000	\$40,000	\$45,000	\$50,000	\$50,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$525,000
											\$1,150,000

Under the Roads Act, councils can levy 50% of the cost of these works to the resident. Council is budgeting to generate \$40,000 from residents in 2018/19, so Council is actually spending considerably more on kerb and gutter – around \$1.15M over 10 years.

This level of investment will enable Council to construct around 8km of kerb and gutter over 10 years, although this figure may decrease as Council improves condition data on kerb and gutter and targets some of own funds for renewal. It would be helpful to clarify how much of the current gaps across town can be addressed in 10 years.

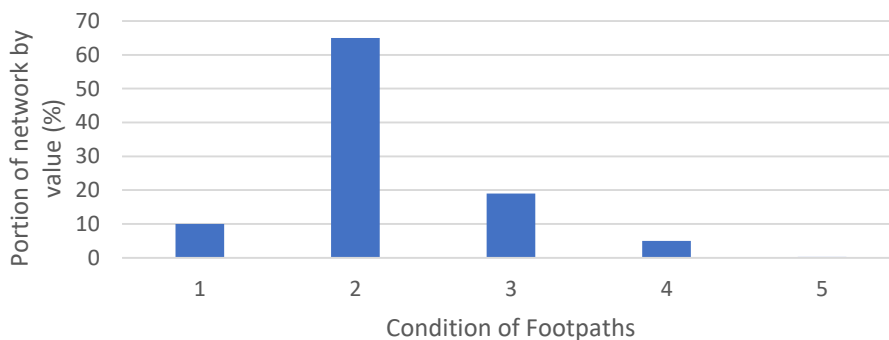
ACTION 9.10 in the Improvement Plan in the Resourcing Strategy is:

Prepare a map showing current gaps and proposed priorities to construct new kerb and gutter in Grenfell.

Priorities for investment are identified in the Priority Projects List in Appendix 2.

3.6 Footpaths

Council has 9km of footpaths. The condition of these assets is shown in the chart below.



Council is investing a considerable amount in constructing new footpaths of around \$25,000 p.a. over 10 years as shown below.

Under the Roads Act, councils can levy 50% of the cost of these works to the resident. Council is budgeting to generate \$15,000 from residents in 2018/19, so Council is actually spending considerably more on footpaths – almost \$400,000 over 10 years.

	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	TOTAL
Grenfell Streets Footpaving (WSC)	\$1,200	\$20,000	\$20,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$256,200
Grenfell Footpaths (Resident Contributions)	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$140,000
											\$396,200

This level of investment will enable Council to construct around 3km of footpaths over the 10 years, although this figure may decrease as Council improves condition data on footpaths and targets some of own funds for renewal.

Priorities for investment are identified in the Priority Projects List. Once the condition of existing footpaths is better understood, Council will consider developing a longer-term priority plan for Grenfell.

ACTION 9.11 in the Improvement Plan in the Resourcing Strategy is:

Review capital program for footpaths and cycleways including renewal of footpaths in poor condition, disability access and upgrades identified in Active Transport Plan (identify on a map).

3.7 Bridges and Major Culverts

Council has a total of 14 bridges, all of which are concrete apart from a timber bridge on Gambarra Road.

Council also has 25 ‘bridge-sized’ or ‘major’ culverts (those that are more than 6m long, measured along the roadway).

The concrete structures are all in good condition apart from the structure on Gibraltar Rocks Road, which is budgeted for renewal in 2018/19 (\$395,000).

A key barrier to improving transport productivity (along with width and geometry of roads, discussed in section 3.2) is the capacity of bridges. Assessments of bridge capacity often requires specific engineering investigations (unless design information is available). The key bridge that Council is aware of that is a barrier to higher mass limit (HML) vehicles is Nag’s Head Bridge on the Henry Lawson Way towards Forbes.

3.8 Rural Road Culverts

Pipe culverts on the rural road network are accounted for as part of the transport network. Those in urban areas are accounted for as part of the stormwater network (section 3.9).

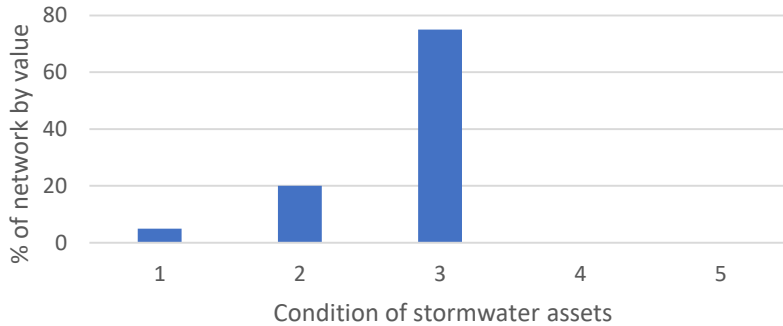
Together, there are almost 1400 smaller culverts (not big enough to be classed as ‘bridge sized culverts’ – section 3.7). Council has identified the need to improve information on the condition of these assets, and intends to identify issues as part of maintenance inspections (section 2) for consideration in specific renewal programs in future.

ACTION 9.12 in the Improvement Plan in the Resourcing Strategy is:

Collect data on rural pipe culverts and prepare a prioritised program for maintenance (clearing) and renewal.

3.9 Urban Stormwater Drainage

Council’s urban stormwater drainage network is comprised of around 3.4km of pipes and 129 pits. It is costly to inspect (via CCTV) and so, like many councils, Weddin has at this stage chosen to rely on the age of these assets to ascertain their condition, although inspections have been carried out by looking down pits where possible. Condition data is shown below:



Given that there are very few instances of failures in the network (e.g. due to a pipe or pit collapsing or blocking) it is a low priority to seek out further information on these assets at this time.

Council will ensure details of any maintenance issues or asset failures are recorded so that such an analysis can be undertaken in future.

In terms of new or upgraded assets, the key issue of concern is under-capacity pipes and pits (or lack thereof) around the town. There are a number of locations subject to minor flooding in storm events where additional stormwater drainage infrastructure could help. These potential projects will need to be scoped up and estimated, and then funding for them evaluated against other priorities for Council’s limited funds.

Council also undertakes floodplain management works in Emu Creek. The Emu Creek Stream Management Plan Implementation project has been funded by Floodplain Management Program. The funding is in the ratio of 6:1 (NSW government: Council). The project completion due date is 31st May 2020. There are six (6) projected milestone completion dates. The total cost of the project is \$298,000. The project has been commenced from April 2018.

4. Risk Management

As discussed in section 4.3 of the Resourcing Strategy, risk is one of Council’s primary considerations when it is formulating its activities in the Delivery Program so as to deliver ‘sustainable best value’.

The table below summarises the key risks and treatment plans that Council has in place to manage these. Note that while there are no ‘critical assets’ specifically identified, criticality is fundamental to Council’s road asset hierarchy (section 6) that guides maintenance and renewal programs.

Risk	Treatment Method
Maintenance defect (e.g. pothole, vegetation, materials on road, footpath trip hazard, etc.)	Inspection program, respond to requests, risk-based prioritisation (section 2.2)
Asset failure (e.g. a bridge collapse) or accident due to asset in poor condition	Condition rating system informed by formal inspections (supported by maintenance inspections also), renewal programs (sections 3.2-3.8) prioritised based on asset condition and hierarchy
Edge drop-offs of unsealed shoulders on sealed roads with narrow seals caused by trucks	Shoulder grading program is part of maintenance (section 2.2), shoulder resheeting (section 3.2) and upgrades to seal and widen unsealed shoulders (section 3.2) prioritised based on risk and hierarchy i.e. roads with more traffic
Lack of all-weather access due to lack of gravel coverage	Gravel re-sheeting of unsealed roads (section 3.4) is prioritised with reference to asset hierarchy and other factors such as school bus routes
Damage to unsealed roads due from heavy vehicles	Consider imposing load limits on such roads to prevent access by heavy vehicles if required
Other road safety issues e.g. clear zones	Identified in improvement / upgrade programs and via maintenance activities (e.g. vegetation control)

4.1 Reporting on Infrastructure Renewal Backlog and ‘Required’ Maintenance

As discussed in section 4.4 of the Resourcing Strategy, Council has adopted a risk-based approach to reporting on infrastructure maintenance and renewal backlog in Special Schedule 7 of Council’s Annual Financial Statements (these are also key Fit for the Future measures).

It is important to note that this does not mean that Council is therefore providing ‘sustainable best value’, only that it is adequately managing risks associated with the network. Decisions about the activities that will deliver sustainable best value are made in the context of sections 2 and 3, where Council prioritises its resources to particular program areas.

The following assets are identified as having a higher level of risk that requires renewal to resolve. Note that only those requiring ‘immediate action’ will be reported as backlog (the other issues will help inform decisions about funding in section 3).

Asset at Risk	What Can Happen?	Risk Rating	Unfunded Risk (<i>Renewal</i>) Treatment	Cost to Treat (\$)	Residual Risk Rating
None identified					

The following maintenance programs have been identified as being under-funded to the extent that there may, potentially, be maintenance defects with a higher level of risk identified but insufficient funds to address the issue:

Asset at Risk	What Can Happen?	Risk Rating	Unfunded Risk (<i>Maintenance</i>) Treatment	Cost to Treat (\$)	Residual Risk Rating
None identified					

A risk-based review of renewal and maintenance of assets on this basis will be undertaken as at 30 June each year. Where there were insufficient funds to manage risks to an acceptable level – where there were risks assessed as requiring immediate action (rather than programming for action in future) under Council’s *Risk Management Policy and Framework* – the funding shortfall will be reported in Special Schedule 7 in relation to the ‘cost to bring to satisfactory’ (infrastructure renewal backlog) or ‘required’ (over and above ‘actual’) maintenance as applicable.

ACTION 9.4 in the Improvement Plan in the Resourcing Strategy is:

Annual review of risks associated with maintenance and renewal activities to inform ‘required maintenance’ and ‘bring to satisfactory’ reporting in Special Schedule 7; other risks (e.g. need for upgraded / new assets) also identified; AMP updated if required.

In addition to those requirements, Council will also consider higher-risk issues associated with the need to upgrade or construct new assets (note that these are specifically excluded from the ‘backlog’ reporting). The following have been identified at this time:

Asset at Risk	What Can Happen?	Risk Rating	Unfunded Upgrade or New Asset Treatment	Cost to Treat (\$)	Residual Risk Rating
None identified					

5. Asset Register and Accounting

As discussed in sections 4.1 and 4.2 of the Resourcing Strategy, accurate valuation and depreciation of infrastructure is critical if Council is to have a clear picture about its financial sustainability.

This financial planning information needs to align with infrastructure planning (in the AMPs).

For example, sealed road surfacing is listed in Council's asset register including the replacement cost and service life. The cost must align with works in future programs (section 3.1) and the service life must be based on the rate at which Council is resealing i.e. if Council only has enough funding to reseal every 30 years, this is their service life even if, ideally, reseals should be every 20 years.

Risks created by underfunding of renewal are considered in section 4, but the assumptions that inform the asset register must be based on what Council actually plans to do (in this AMP).

Once works (in the AMP) are actually carried out, it is vital that the asset register is updated (e.g. if there is a new asset created). There is also a need to better capture costs of such works. The functionality of Council's corporate finance system is a barrier to improvements here, as is the fact that asset information is currently held in spreadsheets.

ACTION 7.1 in the Improvement Plan in the Resourcing Strategy is:

Capture asset renewals, disposals and additions from capital works program; review assumptions (valuation/service life) in this context and any other available information (inspections, floods, etc.)

ACTION 7.2 in the Improvement Plan in the Resourcing Strategy is:

Implement works order system to capture capital works (details of assets created/disposed, costs) – after GL restructure (action 1.3)

There are also opportunities to collaborate with neighbouring councils regarding valuations, condition rating, etc. to improve consistency as well as help underpin advocacy for funding.

ACTION 8.1 in the Improvement Plan in the Resourcing Strategy is:

Develop consistent approach to condition assessment of roads across the MLA and explore opportunities to utilise in a regional strategy advocating for more roads funding

The table below summarises key assumptions about asset valuation and depreciation (in particular, the replacement value and useful life of infrastructure). Where possible, this information is being compared against other councils with similar assets to improve confidence in these figures.

Asset	Replacement Value	Useful Life (years)	Comments
Regional sealed road pavements	\$5/m ² (gravel overlay); \$7.5/m ² (gravel + stabilisation)	96 (288 years for long-life component)	Council's unit rate and service life is lower than others because of the type of materials and construction methods used.
Regional sealed road surfacing	\$2.4-2.9/m ²	32	Review costs against contract rates. Resealing budgets mean that the actual useful life is less.

Asset	Replacement Value	Useful Life (years)	Comments
Local sealed road pavements	\$5/m ² (gravel overlay); \$6.8/m ² (gravel + stabilisation)	81-112 (312-336 years for long-life component)	Service life varies with hierarchy
Local sealed road surfacing	\$2.4-2.9/m ²	26-28	Review against contract rates.
Local unsealed road pavements	\$1.72/m ²	33	Cheaper than neighbouring councils. Given Council only applies gravel 50mm thick (compacted), actual life will be reduced.
Kerb and gutter	\$136/m	90	Comparable to neighbours
Concrete footpath	\$105/m ²	50	Comparable to neighbours
Stormwater pipe 375mm class 3 concrete, 1.5m deep	\$227/m	100	Comparable to neighbours
Stormwater pit 1.5m deep	\$1700/each	100	Comparable to neighbours

The table below summarises current condition data and proposed collection of future data. Note that the next full revaluation of transport assets is due in 2020.

Asset Category	Current Condition Data (method and date, report ref.)	Confidence level in data	Next Proposed Data Collection (method and date, report ref.)
Sealed Roads	Visual inspection based on WSC in-house system, 2015	Medium (some roads not rated)	Currently in-house review to inform capital programs. Next formal data collection with next full revaluation in 2020
Unsealed Roads	“	Medium (network will have changed with floods)	
Bridges	“	Medium	
Footpaths	“	Medium	
Stormwater Drainage	“	Low (inspection of pits only)	

6. Asset Hierarchy

6.1 Road Map and Asset Hierarchy

Council's Road Inspection Policy defines a road asset hierarchy as follows:

Category	Description (vpd = vehicles per day)
1	Local Access - Urban Street with <200 vpd or Rural Road/ Village Street with <20 vpd
2	Collector - Urban Street with 200 - 400 vpd or Rural Road/ Village Street with 20 - 50 vpd
3	Distributor - Urban street with 400 - 2000 vpd or Rural Road/ Village Street with 50 - 100 vpd
4	Sub Arterial - Urban street with > 2000 vpd or Rural Road/ Village Street with > 100 vpd
5	Arterial Roads – Rural Road > 200 vpd

A review is currently being undertaken to ascertain the appropriateness of the traffic volumes between the categories.

The position of individual roads on the hierarchy has not be clarified at this time. Council's asset register defines a different hierarchy, but it has identified where individual roads sit on the list. This will be reviewed in the next year, as will road lengths submitted to the Grants Commission.

ACTION 9.14 in the Improvement Plan in the Resourcing Strategy is:

Review asset hierarchy (align Roads Policy and Asset Register).

Map showing hierarchy to be inserted when complete.

6.2 Footpath Asset Hierarchy

Council's Footpath Policy identifies the following footpaths as having higher priority:

- Main Street (Short Street to Grafton Street)
- Camp Street (Warraderry Street to West Street)
- Short Street (Warraderry Street to Melyra Street)
- Forbes Street (Camp Street to Melyra Street)

These receive a 3 monthly inspection, whereas the remaining footpaths in the local government area receive an annual inspection. Defects also receive a higher priority in the higher-use footpaths.

7. Financial Plan

Figures in the table below summarise the program budgets outlined in sections 2 and 3.

These figures align with those in the Long Term Financial Plan (Appendix 2 of the Resourcing Strategy).

OPERATIONAL PROGRAMS								
Program Area	Specific Revenue (other than General Rates)				Expenditure (excl. Depreciation)			
	2018/19	2019/20	2020/21	2021/22	2018/19	2019/20	2020/21	2021/22
Town & Shire Works	650,000	*assumes some grants			650,000	*note: some activities are capital work		
Town Streets					90,605			
Village Streets					1,000			
Rural Roads Shoulders (FAGs)					50,000	40,000	40,000	40,000
Street Lighting	6,000				7,000			
Footpaths					7,000			
Carparks					2,500			
Tree Planting					10,000			
Regional Road Block Grnt/Maint.	400,000	10,000	20,000	20,000	400,000	10,000	20,000	20,000
Regional Road Shoulders/Spray					50,000			
RMCC Maint. & Work Orders	1,676,000				1,200,000			
TOTAL TRANSPORT	2,112,000	10,000	20,000	20,000	1,968,105	40,000	40,000	40,000
CAPITAL PROGRAMS								
Project Area	Specific Revenue (other than General Rates)				Expenditure			
	2018/19	2019/20	2020/21	2021/22	2018/19	2019/20	2020/21	2021/22
Rural Roads (WSC internal revenue allocation)					82,154			
Roads to Recovery	14,266	1,025,000	1,025,000	1,025,000		1,025,000	1,025,000	1,025,000
FAGs (local roads)	999,502	1,019,900	1,019,900		8,302			
Bridges					94,266			
Rural Roads Renew/Upgrade					30,000	405,000	285,000	290,000
Reseals (local roads & FAGs)					200,000	210,000	210,000	210,000
Unsealed Roads Gravel Resheet					80,000	200,000	15,000	10,000
Main St (SCCF round)	768,982				768,982			
Grenfell Streets Construct'n					80,000	90,000	100,000	10,000
Village Streets					5,000	10,000	10,000	10,000
Kerb & Guttering	4,000				9,000	5,000	5,000	5,000
Footpaths	15,000				6,200	20,000	20,000	25,000
Industrial Area Driveways					10,000	10,000	10,000	
Regional Roads Reseals	30,000				300,000	241,000	270,000	250,000
Regional Roads Pavements					30,000	63,000	48,000	94,000
Reg. Roads Traffic Facilities					50,000	1,000	2,000	3,000
RMS Active Transport Plan								
TOTAL TRANSPORT	2,467,750	2,044,900	2,044,900	1,025,000	3,174,904	2,375,000	2,400,000	2,437,000

8. Standards and Specifications

Council builds roads in accordance with relevant industry standards and codes of practice.

Council's Policies for:

- Design Standards for Rural Roads
- Roads Inspections
- Footpaths

Appendix 1 – Maintenance Management System

Details of Council's Maintenance Management System are established in Council's policies on:

- Road inspections
- Footpaths

These are available on Council's website.

Appendix 2 – Priority Projects List

Following are priority lists of *projects* for each of the capital works *programs* in section 3.

While those in the current year are ‘locked in’ to the Operational Plan, those in future years are indicative only. They are included to facilitate Council decisions about re-prioritising resources between program areas and to inform investigation and design activities (which will then inform more accurate estimates of projects prior to their inclusion in the Operational Plan).

Council may identify some projects as unfunded. These are included on the basis that Council may change its funding priorities in future or there may be grant funding opportunities (in which case it is important to clarify project priorities and undertake planning to ensure projects are ‘shovel ready’).

It is important to recognise that the level of detail in this framework will improve over time. In particular, future lists will indicate the portions of a project that is ‘renewal’ versus ‘upgrade’ (or new assets) to facilitate projections for the Renewal Ratio and reporting under Fit for the Future.

Timeframe for Programs

It is Council’s goal to identify projects for at least the next 4 years and indicative budgets beyond this (to 10 years, to align with the Long Term Financial Plan), however at times project lists may not yet cover the full 4 year period.

1. Resealing of Sealed Roads

As per ACTION 9.6, there is a need to identify specific roads for reseals in future revisions of this AMP.

2. Rural Sealed Roads Renewal and Upgrade Program

Regional Roads

As per ACTIONS 9.6 and 9.7, there is a need to review allocations for regional roads. The table below includes all programs (renewal and upgrade of roads is only part of these).

2. Regional Roads Block Grant

Proposals for the Regional Roads are based on the current funding levels increased by approximately 3% (based on previous years increase).

Proposals and Locations	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028
a) Maintenance	\$400,000	\$410,000	\$420,000	\$420,000	\$430,000	\$440,000	\$470,000	\$480,000	\$480,000	\$480,000
b) MR239 - Young Road Between Tyagong Hall Road and Martins Lane – reconstruct road to remove dip.										
c) Shoulder Grading/Suckers/Spraying	\$30,000								\$60,000	60,000
d) MR237 Reseals and Forbes Street	\$150,000									
e) MR398 Reseals	\$100,000	\$141,000	\$150,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
f) MR236 Reseals	\$50,000	\$100,000	\$120,000	\$200,000	\$200,000	\$250,000	\$250,000	\$200,000	\$300,000	\$300,000
g) MR239 Rehabilitation/Reseals	\$50,000	\$163,000	\$148,000	\$194,000	\$210,000	\$178,000	\$174,000	\$248,000	\$122,000	\$122,000
h) Traffic Facilities	\$50,000	\$51,000	\$52,000	\$53,000	\$54,000	\$55,000	\$56,000	\$57,000	\$58,000	\$58,000
Total	\$830,000	\$865,000	\$890,000	\$917,000	\$944,000	*\$973,000	\$1,000,000	\$1,035,000	\$1,070,000	\$1,070,000

Local Roads

The table below only includes the allocation of FAGs grants. Items 5, 7, 9, 21, 24, 25 and 30 are relevant to the rural roads renewal and upgrade program area and include a mix of widening shoulders, reconstructing failed pavements and resealing.

Proposals & Location	Estimate	2018/19	2019/20	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/26	2026/27	2027/2028
1) General Maintenance		Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2) Edge patching & routine patching		Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
3) Reseals		\$200,000	\$210,000	\$210,000	\$210,000	\$210,000	\$222,000	\$230,000	\$250,000	\$250,000	\$250,000
4) Greenethorpe – Bumbaldry Road	\$100,000/km										
5) New Forbes Rd – widen and strengthen pavement	\$100,000/km	\$100,000	\$105,000	\$100,000	\$100,000						
6) Bewleys Rd – widen strengthen and reseal 12.5 km (1)	\$100,000/km	Completed									
7) Back Piney Range Rd – widen, shoulders & reseal 13.5 km	\$100,000/km					\$138,000	\$295,000	\$317,000	\$400,000	\$278,000	
8) Ballendene Rd – widen, shoulders and reseal	\$100,000/km										
9) Lynchs Road	\$100,000/km									\$252,000	
10) Tyagong Hall Road – widen, shoulders and reseal 5 km	\$100,000/km										
11) Pinnacle Rd from MR No 236 widen, shoulders and reseal	\$100,000/km										
12) Gravel resheeting on shire needs basis.		\$180,000	\$200,000	\$215,000	\$210,000	\$240,000	\$240,000	\$240,000			\$240,000
13) Driftway Road	\$100,000/km	Completed									
14) Quandialla Drainage											
15) Grenfell Streets construction		\$80,000	\$90,000	\$100,000	\$110,000	\$110,000	\$110,000	\$110,000	\$110,000	\$120,000	\$150,000
16) Grenfell kerb and gutter*		\$50,000	\$50,000	\$55,000	\$60,000	\$60,000	\$70,000	\$70,000	\$70,000	\$70,000	\$ 80,000
17) Grenfell Streets – footpaving		\$25,600	\$20,000	\$20,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		\$40,000
18) Village Streets – reconstruction		\$10,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000		\$30,000	\$40,000
19) Warraderry Street – drainage											
20) Weddin/Camp/Church Street – replace footpath		\$ 25,600									
21) Thuddungara Road safety improvement		30,000									
22) Clayneys Road raise causeway											
23) Adelargo Road raise causeway											
24) Bimbi – Caragabal Road						\$150,000					\$150,000
25) Adelargo Road			\$200,000	\$185,000	190,000						
26) Sucker Removal/Shoulder Grading/Spraying		\$30,000	\$40,000	\$40,000	\$40,000	\$50,000	\$50,000	\$50,000	\$50,000		\$50,000
27) Forbes Street Beautification											
28) Industrial Area Sub Division Driveways Construction		\$10,000	\$10,000	\$10,000							
29) Quandialla Footpaths Reconstruction											
30) Gibraltar Rocks Road Bridge sized culvert replacement		\$180,000									
31) RMS Active Transport Plan											
32) Electricity Substation – Industrial Area											
Subtotal		\$921,200	\$940,000	\$950,000	\$960,000	\$998,000	\$1,027,000	\$1,057,000	\$905,000	\$1,000,000	\$1,000,000
Overheads	8.5%	\$ 78,302	\$ 79,900	\$79,900	\$81,600	\$84,830	\$87,295	\$89,845	\$76,925	\$85,000	\$85,000
Totals		\$999,502	\$1,019,900	\$1,019,900	\$1,041,600	\$1,082,830	\$1,114,295	\$1,146,845	\$981,925	\$1,085,000	\$1,085,000

Over and above the FAGs allocations, there is around \$1M p.a. in Roads to Recovery grants as well as \$650,000 in funding from general rate revenue. Actual funding amounts need clarification as per ACTION 9.1.

Further sealed rural roads to consider for upgrading (based on their classification as either 3 or 4 on Council’s road asset hierarchy in the asset register – refer section 6) include:

- Sandy Creek Road,
- Caragabal – Quandialla Road
- Pullabooka Road

There is a need to review this information, though, as further works may have been carried out since the last condition data in the asset register (2015). In total, there were around 43km of higher traffic rural roads with seals under 7m identified in the asset register.

There is then a further 157km or so of lower traffic rural sealed roads. Some of these may be a priority for safety or other reasons, and they should be considered in future revisions of this AMP.

3. Unsealed (Gravel) Rural Roads

The adopted program for 2018/19 is as follows.

ACTION 9.9 is to undertake a review of the sustainability of current programs. This needs to be based on up-to-date condition data as well as considering the availability of additional budgets (informed by ACTION 9.1).

Shire Roads Gravel Resheeting Program (FAG)

Road names	Length of work (Km)	Rate/km	Amount
Adelargo Road	2	\$13,200.00	\$26,400.00
Arramagong Road	2	\$13,200.00	\$26,400.00
Bald Hills Road	1	\$13,200.00	\$13,200.00
Barkers Road (East)	2	\$13,200.00	\$26,400.00
Borehams Road	2	\$13,200.00	\$26,400.00
Boundary Road	1	\$13,200.00	\$13,200.00
Browns Lane	0.8	\$13,200.00	\$10,560.00
Eves Lane	0.7	\$13,200.00	\$9,240.00
Goodes Lane	0.3	\$13,200.00	\$3,960.00
Greenethorpe-Wirega Road	1	\$13,200.00	\$13,200.00
Griffiths Road	0.9	\$13,200.00	\$11,880.00
Total	13.7		\$180,000.00

4. Roads in Urban Areas (Grenfell and Villages)

The adopted program for 2018/19 is as follows:

5. Proposed Construction Schedules for Grenfell - 2018/2019 and onwards

The following future kerb and gutter, road shoulder and footpath program for Grenfell is proposed as follows, subject to available funds:

Rank	Description of Works	Street	Kerb & Guttering	Footpath
1.	North Street (south side) from East Street to Bogolong Street (98 metres kerb and gutter – 98m x 2m)	\$2,500	\$12,500	
2.	Weddin street (west bound) between camp street and Young Street- 2.1 m x 19 m			\$3,200
3.	Weddin Street (west bound) between Young Street and Dagmar Street – 20 sq.m			\$,1600
4.	Weddin Street (west bound) between Young Street and Dagmar Street – 288 sq.m- cold mix			\$ 4,000
5.	Camp Street (South bound) between Weddin Street and Church street – 80 sq.m			\$ 6,400
6.	Camp Street (North bound) between Midle Street and Camp street – 144 sq.m			\$ 12,000
7.	North Street (south side) from lane behind Clarice Johnson carpark to Bogolong Street (58 metres kerb and gutter – 58m x 2m shoulder)	\$2,500	\$7,300	
8.	North Street (south Side) between Dalton and Alexandra Streets (100m kerb and gutter 3m shoulder)	\$3,600	\$13,000	
9.	Tyagong Street South of North Street to Emu Creek 7 m x 80 m	\$8,400		
10.	Lane off Young Street northerly to Emu Creek (Tyagong/MR 398) 145 m x 4 m	\$7,500		
11.	Lane off Young Street southerly to Silo (Tyagong/MR 398) 120 m x 4 m	\$5,900		
12.	Rose Street (north side) between Wood and West Streets (110m Kerb and Gutter, 3m shoulder)	\$4,000	\$14,600	
13.	Rose Street (south side) between Wood and West Streets (110m Kerb and Gutter, 3m shoulder)	\$4,000	\$14,600	

The estimated construction expenditure for 2018/2019 is as follows: -

- Kerb and Guttering construction \$40,000 (Council half share)

5. Kerb and Gutter

The table in section 3.4 above identifies top priority kerb and gutter projects.

ACTION 9.10 in the Improvement Plan is to prepare a map showing proposed locations for future works (where there are gaps around Grenfell).

It is important that kerb and gutter works are aligned with resealing (section 3.1) and renewal of pavements (section 3.4) where possible to maximise efficiencies.

6. Footpaths and Cycleways

The table in section 3.4 above identifies top priority footpath projects. ACTION 9.11 in the Improvement Plan is to incorporate other priorities, such as those identified in the Active Transport Plan.

7. Bridges and Major Culverts

The table in section 3.2 identifies that the Gibraltar Rocks Road bridge is to be completed in 2018/19. At present, there are no other priority projects identified.

8. Rural Road Culverts

ACTION 9.13 in the Improvement Plan is to identify priorities for culvert renewals.

It may be that some funding for regional roads (section 3.2) can be directed to these assets.

For local roads, the available budgets for rural roads (to be clarified, as per ACTION 9.1) will be utilised where priorities arise through the year.