

Why does Council fix roads that way?

Roads are Transport Assets

Byron Shire Council's Transport assets enable the community to access and enjoy a range of services and facilities that Byron has to offer and has a replacement value of around \$641 million (as at 30 June 2025). The efficient management of these road and stormwater assets is vital to provide safe, reliable and efficient services.

Council's transport assets do not include trains, bus or taxi services which are beyond Council's responsibility. The Transport Asset Management Plan (TAMP) outlines what assets Council manages, including those in the list below.

How does Byron Shire Council fix roads?

Each year Council invests millions of dollars in resealing, heavy patching and pothole repairs for roads. To undertake capital renewal projects, Council also relies on federal and state government grant funding such as Roads to Recovery and Fixing Local Roads.

Council has a planned road maintenance program designed to protect and extend the life of our roads as best as possible with available funding. Regular maintenance helps reduce the speed of degradation of underlying road pavement and prevent minor defects forming into more significant and costly defects. Roads naturally weaken over time, with heavy rainfall and wet weather accelerating this process. As a result, small holes and cracks in the road surface can quickly turn into potholes.

Undertaking maintenance and repairs at the right time is therefore essential to keep roads safe, extend their useful life and reduce more costly repairs in the future.

Sealed Roads	532 km
Unsealed Roads	81 km
Vehicle Bridges	47
Footbridges	20
Footpaths	101 km
Kerb and Gutter	280 km
Roadside Furniture	332
Roadside Barriers	48 km
Retaining Walls	6 km
Traffic Control Devices	1,257
Off-Street Car Parks	54
Signs	10,407

Good Practice Asset Management

Good asset management practices ensure Council's assets can be capable of providing services, or an agreed quality, in a financially sustainable manner for present and future communities. In light of funding limitations, asset management needs to balance Levels of Service, whole of life costs and risks. It requires intervening as best as possible at strategic points in an asset's lifecycle, helping maintain its life expectancy and minimising the whole of life costs to maintain it.

There are many reasons why assets deteriorate and cannot meet Levels of Service and community expectations, such as:

- limited maintenance and capital renewal works due to funding constraints
- accelerated weathering from environmental conditions such as sun exposure and intense rainfall
- damage by service authorities when installing or constructing infrastructure within Council's road corridors
- increases in vehicle heavy loads on sections of Council roads beyond what the road structure can cater for
- severe weather events and natural disasters.

The current long term financial expenditure required for maintenance and capital renewal is insufficient to maintain Transport assets. The current spend on road reseals and reconstructions fluctuate from year to year and can be affected by maintenance overruns (e.g. caused by impacts from severe weather). Roads have big financial challenges with a future capital renewal gap of \$10.4 million over the next 10 years and a current backlog of \$72.1 million (Strategic Asset Management Plan). To address this, it will take significant funding and resourcing effort over the next 20 to 30 years.

Interesting Facts

- Based on annual customer satisfaction surveys, the condition of roads has been the community's highest priority, with local roads seen as being the most important. Yet, local roads have received the lowest satisfaction ratings.
- There is approximately 16 metres of road per resident in the Shire
- Sealed roads have the highest replacement cost out of all Transport assets - \$376 million
- Temperatures in NSW have changed over the past 10 years, increasing by 1.4-1.6°C which is 1.4 times faster than the global average. This has contributed to more severe weather events occurring and subsequent damage to roads such as the 2022 floods.
- The 2018 Transport Asset Management Plan road reseal target is 39km per year. This requires an estimated annual budget of over \$5 million to deliver.

The state of local roads

The fair to poor state of local roads is not just a challenge for Byron Shire Council.

The Grattan Institute published a report in 2023 titled, *Potholes and Pitfalls – How to fix local roads*. The report highlighted the under funding currently available for councils to fix, especially rural and regional roads. More than 75 per cent of Australia's roads are managed by councils.

The report states, "*A gradual erosion of untied funding has been terrible for local roads, especially in rural areas. We estimate an extra \$1 billion is needed next year [2024] just to keep the roads in the same state they're in today.*" (P4)

The report provides recommendations for the federal government including more targeted funding and providing help to councils to manage their local roads.

Councils typically manage road repairs by

- Balancing the level of service for public roads and the standard of road construction. These decisions are based on what council can sustain over the long term.
- Working with State and Federal Government to secure grant funding to upgrade roads.
- Prioritising repairs based on public safety, road function, traffic volumes, asset condition, community impact and available funding.
- Undertake temporary patching, which is understood to not be ideal, however is the only immediate measure to reduce danger until a more permanent reconstruction can be funded and scheduled.

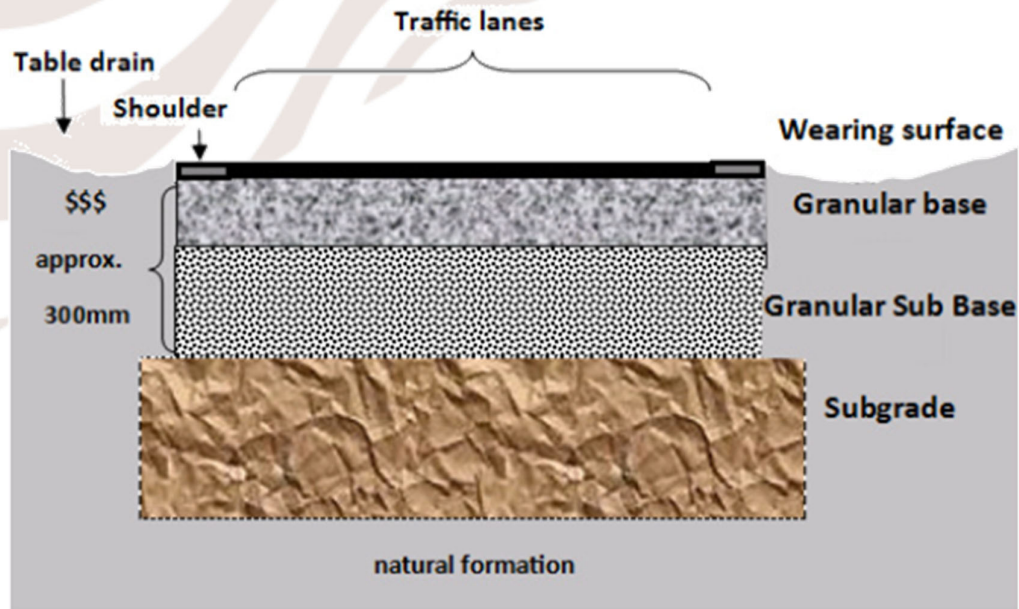
In NSW, councils like Byron Shire face resource constraints due to external factors, such as rate pegging, which limits councils' ability to deliver the desired lifecycle cost level of service. We rely heavily on external funding to maintain the current performance. Despite these challenges, road users expect better safety, resilience and comfort outcomes.

In addition, the network has gradually declined over the decades, resulting in a continual increasing backlog, with current funding constraints preventing proper or efficient maintenance and renewal.

Council continues to work towards ways of improving service levels to the community despite resource constraints.

What Makes Up a Road?

The typical cross section of a road and the names of the different components are:



Definitions

Maintenance is work performed on an asset that keeps it in a functional state, for example:

- filling potholes in roads
- repairing cracks in footpaths
- replacing guideposts
- grading a gravel road

Capital Renewal is work performed on an asset to bring it back to a good condition (like for like).

Examples include:

- resealing a sealed road: resealing is placing a new layer of bitumen or asphalt concrete over the existing pavement. The purpose of a reseal is to seal the base to prevent water entering the pavement. This helps slow deterioration, reduce pothole formation and extend the life of the road. Resealing also involves new line marking, if required, and shoulder/ side drain works or vegetation management.
- reconstructing a portion of road segment: reconstructing is tearing up the existing pavement, base course and often also the sub-base and replacing with new material. It also involves the reconstruction of shoulders and often side drains, or kerb and gutter. It often involves vegetation management and working around or with other utility services in the road reserve, for example, telecommunications, electricity, water or sewer services.
- putting new gravel on a gravel road.

Backlog is the value of remedial work required for assets that is unfunded after a period of time.

Level of Service is the defined quality for a particular service against which performance can be measured. Levels of Service usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost.

Whole of Life or lifecycle refers to the life of an asset including planning/ acquisition, operations and maintenance, capital renewals and new/ upgrades, and disposal. Whole of life costs refer to the total cost of managing an asset throughout its lifecycle.

Local Roads are classed as 'local' and Councils are responsible for management of them, including road safety, road funding, road maintenance and heavy vehicle access. Local government is responsible for around 90% of the NSW road network by length.

Regional Roads are roads classed as 'regional' and are the secondary road network connecting smaller towns and performing sub-arterial functions. They sit between major State Roads and local council roads. Local councils manage regional roads with funding and administrative support received by Transport for NSW. Examples of Regional Roads in the Shire include Ewingsdale Road and Mullumbimby Road.

State Roads are state highways, freeways and motorways and main roads.

It is important to maintain or renew assets at the right time during their lifecycle, to help ensure they don't fail and cause disruptions to services. To help identify when these need to occur, regular asset inspections are undertaken where assets are graded as either Good (no work needed), Fair (repairs are required) and Poor (needs to be renewed or replaced).

The diagram below illustrates that if you spend money maintaining an asset in good/ fair condition, it costs less and lasts longer than if you leave the asset to degrade to a poor condition, where it costs much more to renew the asset. A key example of this is if you reseal a road at the right time in its life, it is much cheaper to do so than to let it deteriorate further when it requires more costly and disruptive road reconstruction.

