

# *Category 4: Excellence in Pavement Recycling and Stabilising in Local Government*

## Southern Downs Regional Council – QRA Flood Damage Package

Brett Cownie, SPA



## *2024 AustStab Awards of Excellence*

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# Excellence in Pavement Recycling and Stabilising in LG

- This nomination demonstrates excellence through the application of a pavement recycling solution that significantly increased the value proposition of rehabilitation works following pavement inundation on the Southern Downs Regional Council region in 2022



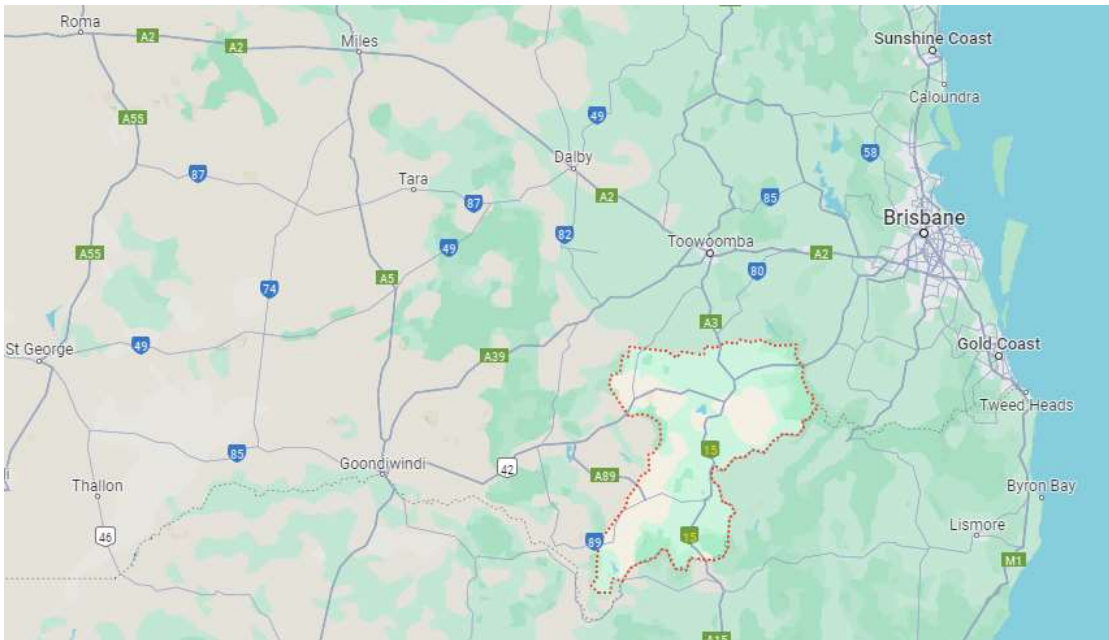
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# Resilient Infrastructure

- This nomination acts as a shining light in showing how disaster funding can be maximised to not only repair an asset, but improve its resilience for future flood events
- Southern Downs Regional Council have implemented a solution that encapsulates the recommendations and policy direction consistent with the following bodies
  - Australian Government Infrastructure Policy
  - Department of Transport and Main Roads, Queensland
  - Infrastructure Victoria – Weathering the Storm

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# Southern Downs Regional Council



- Population of 36,290 people (2021 Census)
- Established in 2008 (merger of Shire of Warwick and Shire of Stanthorpe)
- Area of 7,108km<sup>2</sup>
- Includes the towns of Warwick and Stanthorpe

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# Magnitude of Excellence

## – The Numbers

|                                | Original Proposal      | Adopted Solution                                |
|--------------------------------|------------------------|---|
| Surface Area (m <sup>2</sup> ) | 32,000                 | 80,000  |
| Locations<br>(treatment sites) | 294                    | 84  |
| Rehabilitation Scope           | Granular mill and fill | Slag/Lime and Foamed Bitumen Pavement Recycling |
| \$/m <sup>2</sup>              | \$200                  | \$90  |

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# The Resulting Benefits

- Greater surface area treated
- Significantly improved value for money
- More resilient pavement – improved asset if future inundation occurs

Recycled approx.  
20,000m<sup>3</sup> or 40,000t of  
pavement material



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# The Background

- Extensive wet weather and inundation in 2022 resulted in substantial damage to multiple existing pavements across the Southern Downs Regional Council road network, for 7 locations around the Warwick area
- The subsequent weather event triggered a natural disaster event in which council worked with Queensland Reconstruction Authority (QRA) and GenEng Solutions to scope a suitable plan to restore the network



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# The Conventional Solution and Review

- Original scoping and QRA funding requirements lead to a patching based solution whereby isolated locations were proposed to be rectified by a granular 'mill and fill' treatment with standard spray seal surfacing
- GenEng and Council, in consultation with SP Design, reviewed this proposal and undertook treatment review and budgeting analysis to determine alternate solutions that would add greater value for the proposed funding budget

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Pavement Recycling and Stabilisation Association



# Resulting Excellence

- This review resulted in a decision whereby full width lengths of pavement were identified for rehabilitation using either cementitious (60/40 Slag/Lime) or foamed bitumen pavement recycling which included a granular overly prior to stabilisation and a spray seal wearing course.
- The resulting solution provided a more comprehensive rehabilitation solution over an 80,000m<sup>2</sup> treatment area across 84 sites that provided a more resilient asset for future weather events and a larger surface area treatment than conventional proposal of 32,000m<sup>2</sup> across 294 individual patches.



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# Contributing Partners



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