

Queensland Betterment Programs

Queensland leads the nation in building resilience in its communities through betterment programs.

Queensland's experience with betterment funds shows that an upfront investment in rebuilding impacted assets to be more resilient saves money for all levels of government in future disasters.

Since 2013, more than 750 Betterment projects across Queensland have been approved, with more than \$533 million allocated for Betterment programs in response to severe disasters.

What is betterment?

Betterment allows local governments and state agencies to rebuild essential public assets to a more resilient standard to help them withstand the impacts of future disasters.

Examples include improvements to vital infrastructure such as roads, bridges and floodways. These can vary from stabilisation of low-lying roads to reduce erosion and scouring, upgrades to drainage structures to increase capacity or replacing gravel with reinforced concrete to improve resilience.

The first betterment fund was established by the Queensland Reconstruction Authority in 2013 following Severe Tropical Cyclone Oswald. Eleven years later, Queensland has \$533.85 million approved across 8 funds.

Working together to improve resilience

Betterment is a great example of all levels of government working together to improve the resilience of Queensland communities.

Through the various betterment programs, local governments have been empowered to assess, plan and implement disaster resilience at a grass-roots level, enabling work to begin as soon as possible following a disaster, helping to mitigate the impact on their local communities.

Queensland's betterment programs have been jointly funded by the Commonwealth and Queensland governments under Category D of the Disaster Recovery Funding Arrangements (DRFA) and prior to November 2018, the Natural Disaster Relief and Recovery Arrangements (NDRRA).

Reducing the cost of disasters

A key test for betterment projects is whether they leave infrastructure and communities less vulnerable to the impacts of disasters.

In total, there have been 1173 impacts to betterment sites from 44 events, with 79 per cent suffering no damage or only minor or superficial damage.

In some cases, assets have been subsequently impacted multiple times, including, for example, Aurukun Access Road, which has been hit 10 times.

Of the betterment projects that have been re-impacted, an investment of \$244 million has generated approximately more than \$988 million* in savings or avoided costs, which is a great outcome for all levels of government, as well as Australian taxpayers.

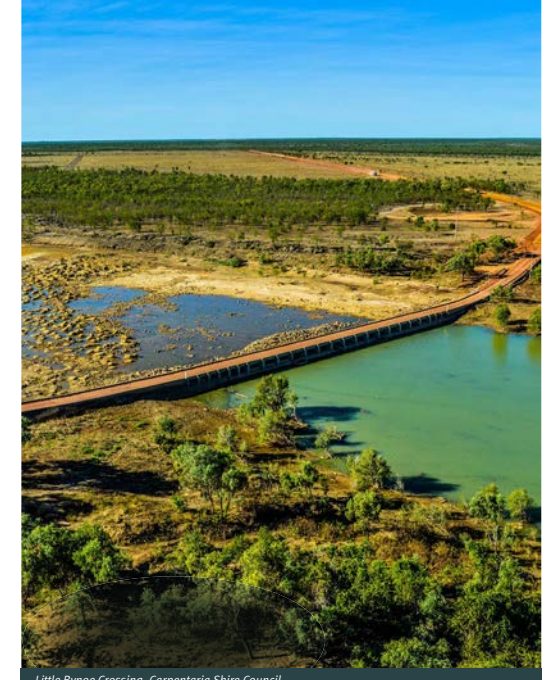
It is worth noting that some of the re-impacted projects completed since 2017 or 2019 have already highlighted the benefits of betterment. Given the number of disasters that impact Queensland each year, the avoided costs are expected to continue to increase.

Other benefits

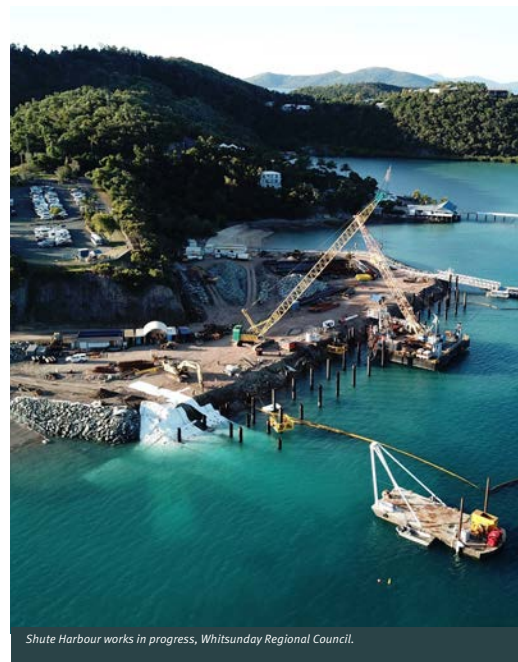
Not only has betterment achieved substantial cost savings through more resilient infrastructure, it has also improved the lives of those living in impacted communities. Roads, bridges and other infrastructure are able to withstand weather events, and return to functionality much sooner in the immediate aftermath of a disaster. Further, the avoided costs figure is based on estimated reconstruction costs only and does not include the many intangible benefits associated with having more resilient infrastructure. This can include social, economic, and environmental benefits such as more connected communities, continuity of telecommunications, road networks and other essential services, increased consumer confidence and business activity, and reduced impacts on the environment (for example, erosion and run off into creek beds and other waterways). If these intangible benefits were included the total avoided cost figure would be much higher.



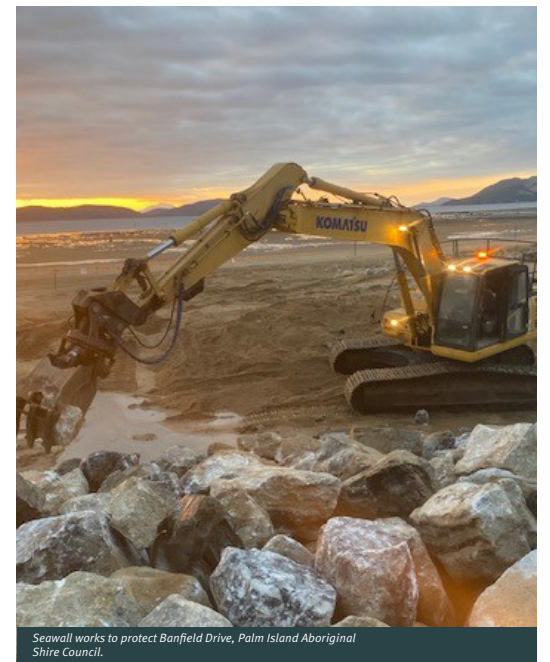
Scenic Highway, Livingstone Shire Council.



Little Bynoe Crossing, Carpentaria Shire Council.



Shute Harbour works in progress, Whitsunday Regional Council.



Seawall works to protect Banfield Drive, Palm Island Aboriginal Shire Council.

*Avoided costs are estimates only, based on data provided by councils on impacts or likely impacts, and calculated on eligible reconstruction costs under Category B of the DRFA/NDRRA at the time of project approval.

Information is current as at October 2024.

Betterment in action

Gayndah Mundubbera Road North Burnett Regional Council




- Gayndah Mundubbera Road is an essential freight and transport link for the North Burnett region, connecting the highly productive agricultural towns of Gayndah and Mundubbera.
- The road was damaged in 2011 and rebuilt only to be re-damaged in 2013.
- Betterment funding from 2013 was used to increase the resilience of the two-kilometre section of road adjacent to the Burnett River that was washed out, relocating it 11 metres uphill.
- New stormwater drainage works (including concrete-lined channels, culverts and scour protection) were also completed, improving functionality of the entire Gayndah-Mundubbera Road.
- The road has since been impacted by eight disaster events (one in 2015, two in 2017, three in 2022 and one in 2023) and has remained functional with only minor expenditure required to clean up and remove debris.



Before



After

 Restoration: \$6,785,707
 Betterment: \$1,308,863
 Avoided cost over eight events: \$54,285,656

Villis Bridge Scenic Rim Regional Council

- Villis Bridge is located on Niebling Road and is the only access road for approximately 12 properties.
- High velocity flooding in the 2013 Severe Tropical Cyclone Oswald event tore the bridge from its foundation and washed it downstream.
- Niebling Road was closed for up to three weeks following the event and an alternative route through private property was established to provide access to residents, primary producers and freighting services.
- The betterment project constructed a new, safer concrete Villis Bridge, as well as stream bank protection for 30 metres either side of the bridge increasing its resilience.
- It has since been impacted by seven disaster events (one in 2017, two in 2020, one in 2021 and three in 2022) and has remained undamaged and functional throughout.



Before



After

 Restoration: \$1,597,077
 Betterment: \$232,845
 Avoided cost over seven events: \$11,179,537

Aurukun Access Road Aurukun Shire Council




- Aurukun Access Road was a gravel road that provides the only road link to and from the Aurukun community.
- The road was damaged in 2010, 2011, 2012 and 2013.
- Betterment funding from 2013 was used to bitumen-seal a 10-kilometre section of the road that was particularly vulnerable to flood damage.
- It has since withstood the impacts of 11 separate disaster events, making it the most frequently impacted completed betterment project to date, remaining functional with only very minor damage.
- In addition, \$1.2 million of betterment funding from 2019 was used to infill scoured sections of the road and stabilise the shoulders and embankments and was subsequently impacted by two events in 2022.



Before



After

 Restoration (two projects): \$979,366
 Betterment (two projects): \$2,299,695
 Avoided cost over 11 events: \$9,323,219

Various projects Somerset Regional Council




- Somerset Regional Council has a large number of major and minor waterways crossing through the region which leave it vulnerable to damage.
- Floods in 2011, 2013 and 2015 caused extensive damage to roads and bridges across the region.
- Since the first betterment program was established in 2013, council has been approved for a total of 42 betterment projects.
- A range of upgrades have been made to essential public assets such as culverts, roads, bridges and floodways to better withstand the impacts of disasters.
- Council has been subsequently hit by multiple events, including the 2021–22 events, and the upgraded assets have all remained functional, which has allowed the important road and transport network to re-open once waters recede following events.



Before



After

 Restoration: \$6,855,797
 Betterment: \$8,434,091
 Avoided cost over three events: \$13,670,997