

Great Barrier Reef Gully and Streambank Joint Program

Fixing gullies and streambanks for clean water for a healthy reef

The challenge: Gully and streambank erosion and sediment run-off

Sediment run-off is one of the biggest pressures on the Great Barrier Reef with gully and streambank erosion contributing significantly to sediment entering the reef. With changed land use, grazing, cane production and mining, there's also been a significant increase in erosion across the landscape alongside the Great Barrier Reef.

The 2013 Scientific Consensus Statement indicated that sub-surface erosion (which includes gullying and streambank erosion) in the reef catchments is the dominant source of fine sediment and associated nutrients delivered to the reef lagoon.

Fine sediment poses the highest risk to reef ecosystems, smothering corals, seagrasses and other plants, affecting their growth and survival as well as the survival of turtles, dugongs, fish and other animals that depend on them for food and shelter.

Fine soil, such as silt and clay, and the nutrients attached to them, travel even further into the reef forming 'flocs' that attract and grow organic material, as well as reducing the light to corals and seagrass meadows.

The solution: Great Barrier Reef Gully and Streambank Joint Program

Partnering to deliver for the Great Barrier Reef

- A coordinated approach to gully and streambank work
- · Guided by technical expertise in sediment management
- Ensuring consistency to monitoring and evaluation
- Targeting high erosion areas
- Sharing learnings and communicating outcomes
- Leveraging research investment

The Australian and Queensland governments, in partnership with the Great Barrier Reef Foundation, Greening Australia, research institutions, regional natural resource management bodies and other industry groups are working together to tackle sediment run-off by remediating gullies and streambanks in priority areas of the reef catchments through the Great Barrier Reef Gully and Streambank Joint Program. This umbrella program of work delivers a range of projects and programs focusing on:

- physical remediation (including piloting of different techniques)
- mulching, revegetation and fencing
- native grass seed production
- grazing land management improvements
- Traditional Owner engagement and training
- scientific research and monitoring to understand the nature of gullies
- communication
- employment and tourism opportunities.

The program also includes work on Springvale Station in Cape York which was purchased by the Queensland Government for \$7 million. Springvale has significant sediment management opportunities as well as terrestrial conservation outcomes, with 40 per cent of sediment to the Normanby catchment coming from the property.

A number of programs are already in place to improve riparian and grazing land management to prevent future gullies forming and streambanks eroding. The Great Barrier Reef Gully and Streambank Joint Program builds upon and complements these activities. In addition, a focus on innovative remediation techniques will help to ensure future investments are more cost-effective.

Targeting priority areas

Previous science has identified the top priority areas for gully and streambank remediation across five of the six reef regions. Projects focus on these areas which include the Normanby in Cape York, the Burdekin and Fitzroy regions as well as areas in the Burnett Mary and Mackay Whitsunday.

Guided by technical expertise

The Great Barrier Reef Gully and Streambank Joint Program is guided by the Sediment Working Group, which provides technical, policy and strategic input into how best to tackle gully and streambank remediation to maximise on the ground actions.

The working group draws on in-kind support from across government, researchers and investment programs and works to support:

- consensus on understanding and management options for hillslope, gully and bank erosion in Great Barrier Reef catchments; including priority areas to focus remediation activities
- consistency in monitoring and evaluation of commissioned projects
- a framework and process to synthesise and communicate learnings (including the update of the 2013 Scientific Consensus statement) to underpin an adaptive management approach.





Australian Government

The investment: Approximately \$45 million over six years

The program brings together government, corporate and philanthropic funding in a way, and at a scale, not done before for the Great Barrier Reef, to deliver a cohesive joint program of gully and streambank remediation work.

Approximately \$45 million is expected to be invested over the next six years from both the Australian and Queensland governments as well as non-government organisations, with the umbrella program setting the foundation for greater collaborative efforts into the future.

Key investments include:

- a project between Greening Australia and the Queensland Government to trial innovative gully remediation techniques funded through the Great Barrier Reef Innovation Fund (\$2 million each)
- \$8 million through the Australian Government Reef Trust phase 2 for gully restoration projects in priority areas in the Burdekin, Fitzroy, Burnett Mary and Cape York natural resource management regions

- \$20 million through the Australian Government Reef Trust phase 4 competitive grants round for gully and streambank restoration in priority areas
- a northern reef recovery project focused on remediation in Cape York delivered through a Great Barrier Reef Foundation and Queensland Government partnership (up to \$3 million each)
- Queensland Government funding for gully and streambank management and remediation as part of the major integrated project in the Bowen-Bogie-Broken catchment (funding to be determined—tentatively \$5 million)
- \$700,000 through the Australian Government National Environment Science Programme, with contributions of \$820,000 from CSIRO and \$130,000 from Griffith University for alluvial remediation and evaluation of gully remediation
- \$1 million through the Queensland Government Reef Water Quality Science Program for sediment projects and research in the Fitzroy and Burdekin regions.

| Funding source | Initiative | Area/location | Government funds | Matched by | Matching funds |
|--------------------------|---|---|-------------------------------------|--|----------------------------------|
| Queensland Government | Innovative Gully Remediation Project | Burdekin region | \$2M | Greening Australia | \$2M |
| | Northern Reef Recovery Project | Normanby catchment and broader eastern Cape York | Up to \$3M | Great Barrier Reef Foundation | Up to \$3M |
| | Major Integrated Project | Bowen-Broken-Bogie catchment | To be determined (tentatively \$5M) | | |
| | Reef Water Quality Science Program (sediment management) | Fitzroy and Burdekin regions | \$1M/3 years (2015-2019) | In-kind support by proponents | |
| | Total Queensland Government funding and matching | | Up to \$11M/4 years | | Up to \$5M |
| Australian Government | Reef Trust—Phase 2 | Cape York, Burdekin, Fitzroy and Burnett Mary regions | \$8M/3 years | Cash and in-kind contributions for each project from delivery partners and participating landholders. | |
| | Reef Trust—Phase 4 (includes gully and streambank repair) | | \$20M/6 years | | |
| | National Environmental Science Programme— alluvial gully remediation | Bowen-Broken-Bogie catchment | \$100,000 | Griffith University | \$130,000 |
| | National Environmental Science Programme— demonstration and evaluation of gully remediation (linked to Phase 2 Reef Trust projects) | Bowen-Broken-Bogie, Don and Upper Burdekin catchments | \$600,000 | CSIRO | \$820,000 |
| | Total Australian Government funding and matching | | \$28.7M/6 years | | \$0.95M (+ additional TBC) |
| Total funds | | | Up to \$39.7M | | \$5.95M (+) |
| Combined total funds | | | Approximately \$45.65M | | |

Current investment for gully and streambank remediation in the Great Barrier Reef

Find out more about these initiatives

Australian Government

Web: www.environment.gov.au/marine/gbr/protecting-the-reef Email: reef2050@environment.gov.au

Queensland Government

Web: www.qld.gov.au/greatbarrierreef Email: OfficeoftheGBR@ehp.qld.gov.au