



Ports North Offsets Management Plan

GreenCollar Progress Report August 2026



Progress Report - Ports North Offsets Management Plan – GreenCollar

1. Purpose

The purpose of this Progress Report is to provide Ports North with an update on GreenCollar's Gully Rehabilitation Project Pipeline as detailed in the Ports North EPBC 2012/6538 Cairns Shipping Development Project (CSDP) Offsets Management Plan Rev3 (2023). Specifically, this Progress Report provides an update on the status of the Bowen River Gully Rehabilitation Project Site 1 (BRGR#1) and how this site will be the first site where Reef Credits will be generated to meet the CSDP offset requirements of 3,813 tonnes of fine sediment (or 7,087 Reef Credits).

While GreenCollar has used all reasonable efforts to ensure that the information contained in this report is true and accurate as at the date of the report, there are several factors that affect GreenCollar's ability to deliver the gully remediation projects that are outside GreenCollar's control. As such, the information contained in this report regarding project schedules is subject to change. This may occur due to factors such as landholder commitment to the projects (land access) and wet season rain events.

2. Background

This is the third progress report GreenCollar has prepared to support the Ports North Annual Report submission to Department of Climate Change, Energy, the Environment and Water (DCCEEW) on the delivery of Reef Credits under the approved Offsets Management Plan Rev3 (2023).

Reef Credits are a tradeable unit of water quality improvement, generated and verified through the Reef Credit Scheme. Each Reef Credit produced from the rehabilitation of gully sites within the Great Barrier Reef NRM Regions represents **538 kilograms** of fine sediment prevented from entering the Reef lagoon. Credits are calculated by comparing historic sediment losses from an eligible site (the baseline or business-as-usual scenario) with the reduced losses achieved during project operation after rehabilitation works are complete. Only once the pollution reduction has been demonstrated and verified by independent, certified auditors can Reef Credits be generated and sold. Further information on the Reef Credit Scheme can be found at <https://eco-markets.org.au/reef-credits/>

The delivery of the first gully rehabilitation project represents not only the first project of its kind to be registered with Eco Markets Australia, but also a world first in establishing a tangible, results-driven model for tracking sediment pollution at scale. This innovative approach delivers direct benefits to the Great Barrier Reef, while also supporting sustainable land management and building community resilience. In doing so, it provides a blueprint for future large-scale restoration efforts across Australia's most vulnerable landscapes.

3. Bowen River Gully Rehabilitation Project

The Bowen River Gully Rehabilitation Project Site 1 (BRGR#1) located at Mt Wickham Station, is delivering large-scale gully remediation to reduce sediment runoff into the Great Barrier Reef lagoon. This project directly aligns with Ports North's EPBC 2012/6538 approval commitments and long-term environmental stewardship goals. By addressing highly eroded gully and erosion scarp that contribute significant fine sediment loads, the project will stabilise landforms, improve soil health, and restore native vegetation cover, helping to protect river systems, enhance downstream reef water quality, and generate measurable environmental outcomes.

4. 2025/26 Site overview

On-ground works at BRGR#1 were completed on the 17th of September 2025, with full demobilisation from site occurring on 19 September 2025 (Figure 1). The April 2026 post-wet season inspection confirmed that the BRGR#1 site is performing successfully and that the rehabilitation objectives are being achieved (Figure 2). All engineered structures, including Rock Chutes 1–5, were found to be stable and functioning as intended, with no evidence of significant structural movement or failure. Sediment accumulation within and around the rock chutes indicates effective reduction in flow velocities and ongoing sediment retention, which is supporting vegetation establishment within the gully system (Figure 3).

Vegetation establishment across the site has been highly successful, with near-complete ground cover achieved in most rehabilitated areas (Figure 4). Seeded pasture and legume species, together with strong natural regeneration of native grasses, have significantly improved soil stability, reduced erosion risk and enhanced overall land condition compared to pre-construction conditions. While some minor rilling and localised erosion features were identified, these were generally limited in extent, likely associated with early wet-season rainfall events prior to full vegetation establishment, or linked to temporary construction access areas (Figure 10). Prompt remediation of these features is important, as they may compromise the stability of the adjacent abutment protection and potentially affect the integrity of the broader rehabilitation area.

The regraded landform areas remain stable with no evidence of active erosion, and the laydown area has successfully revegetated and stabilised. Monitoring infrastructure, including the weather station, in-stream gauges, and automatic sampler, remains in good condition and operational. Pest-exclusion fencing and associated gates were also found to be intact and effective, with no evidence of feral pig or cattle intrusion within the protected area.

Overall, the project demonstrates a high level of rehabilitation success following its first wet season with the combined structural and revegetation works effectively stabilising the gully system and promoting long-term landscape recovery. Continued routine monitoring and minor maintenance, where required, will support the ongoing performance and resilience of the rehabilitation measures.



Figure 1 Post work -October 2025



Figure 2 Post Wet season - April 2026



Figure 3 Rock Shutes post construction and post wet season



Figure 4 Aerial image of Mt Wickham Gully Rehabilitation

5. Water Quality Monitoring

For Reef Credits to be issued in the first year the project must meet Section 5.6.1 of the Gully method. This requires sampling of 5 separate runoff events with a minimum of 3 samples per event.

Over the 2025/2026 wet season the onsite monitoring station and water sampling equipment suffered re-occurring outages. These outages resulted in limited recorded weather and streamflow data with limited water samples been taken during significant rainfall events that occurred in this period. With repairs carried out GreenCollar is confident that the system will remain operational for the upcoming 2026–2027 wet season.

These issues meant that section 5.6.1 of the method could not be met within the first-year post treatment. However, these data will be accrued for the first delivery of Reef Credits outlined in Section 7.

Table 1 Recorded flow events, 2025/2026 wet season

Event Id	Date	Total Flow Duration (mins)	Peak Depth (cm)	Estimated Peak Area (m ²)	Estimated Peak Discharge (m ³ /s)	Estimated Total Runoff Volume (m ³)	Rainfall (mm)	Rainfall Intensity (mm/hr)	Weather Station Offline	Water Samples Collected
1	16/12/2025	85	69.5	1.46	2.19	4,172.24	63.0	108	Online	5
2	12/01/2026	580	99.4	2.53	4.36	85,903.84	n/a	n/a	Completely offline	3

6. LiDAR Analysis

A UAV survey was conducted over the Mount Wickham North Gully Rehabilitation Project using a pre-defined flight plan designed to achieve adequate image overlap and complete ground coverage across the project area. Ten Ground Control Points (GCPs) were established and surveyed on-site to provide accurate geospatial reference data. The GCPs were clearly marked and identifiable within the UAV imagery. Five GCPs were positioned on the rock chutes, while the remaining five were distributed evenly around the project boundary fence line.

The captured data was processed using photogrammetric methods to produce an RGB (red, green, blue) Ortho mosaic (Figure 5 & Figure 6) and LiDAR point clouds processed to derive a Digital Elevation Model (DEM). The resulting datasets were spatially aligned and geo-referenced using the surveyed GCP data. Final deliverables were produced as geo-rectified GeoTIFF files suitable for use within GIS platforms. An accuracy assessment was undertaken by comparing the surveyed GCP coordinates (latitude, longitude, and elevation) with the corresponding locations identified in the processed datasets.

GreenCollar used this data to create a bare earth DEM's for both surveys and then created DEM of Difference (DoD) over the site (Figure 7). High vegetation growth on site post wet season survey interfered with the LiDAR signal returns creating uncertainty in the bare earth DEM leading to false positives in sediment deposition. This is highlighted in areas with >1m deposition (coinciding with areas of dense vegetation). The DoD did highlight small patches of rills (<30cm deep) and gullies (>30cm deep) forming along the batter sections of the rock chutes, these areas are being monitored, and corrective actions will be taken.

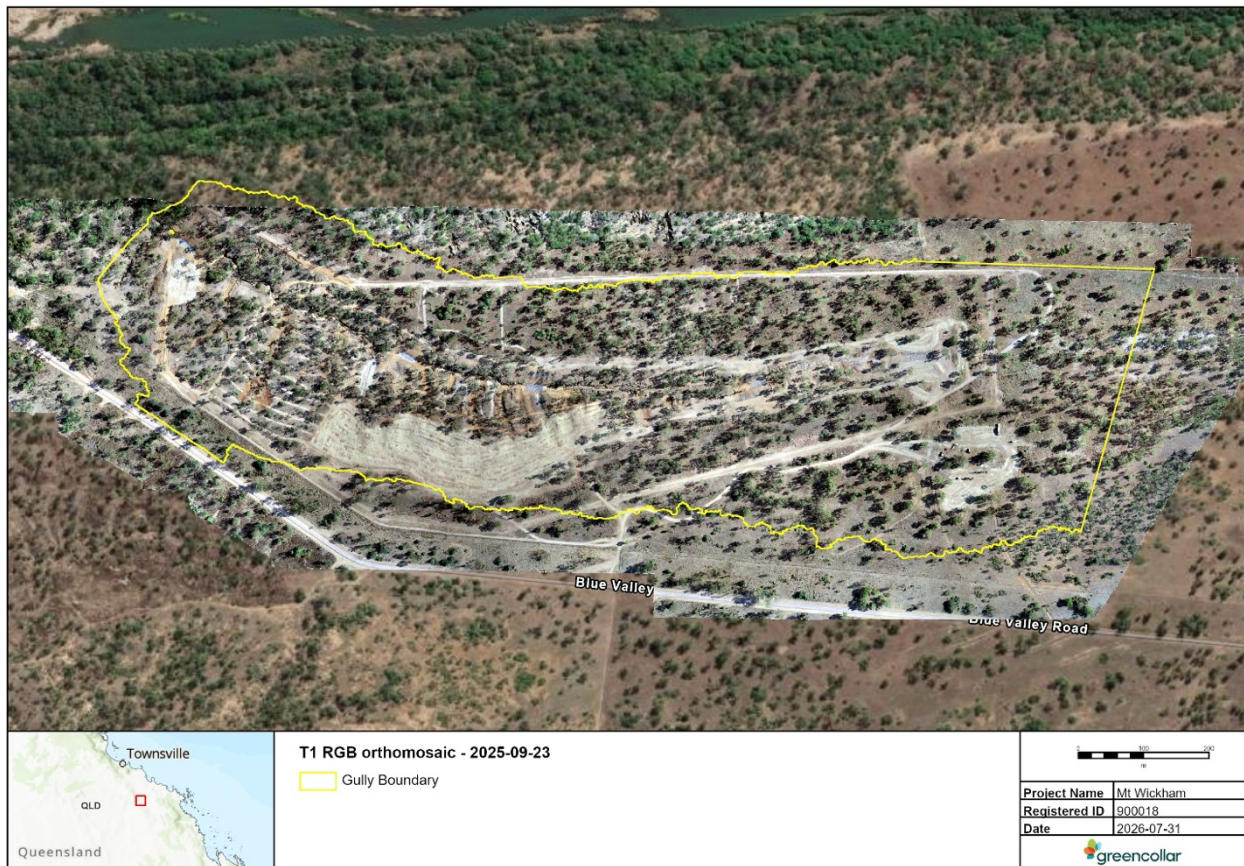


Figure 5 RGB orthomosaic derived from post construction aerial LiDAR survey September 2025

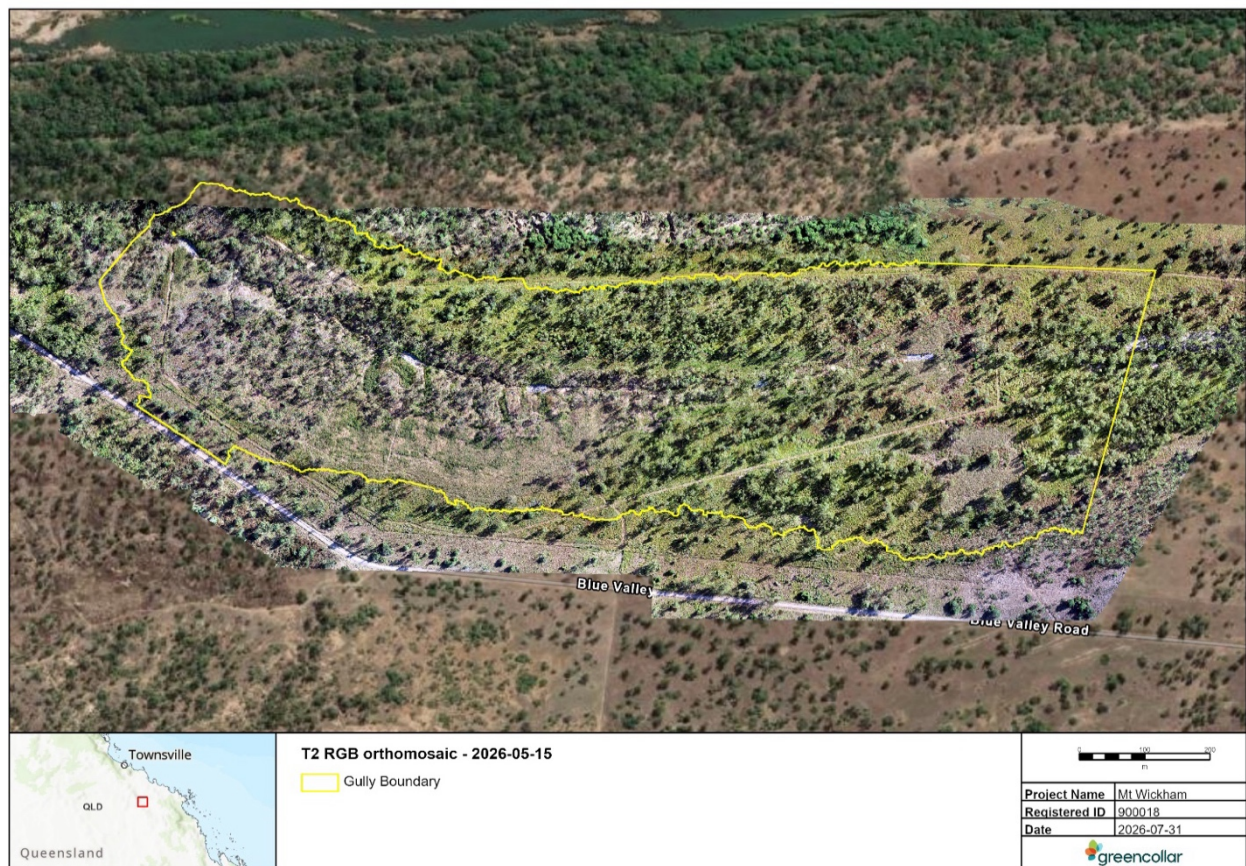


Figure 6 RGB orthomosaic derived from post construction aerial LiDAR survey May 2026

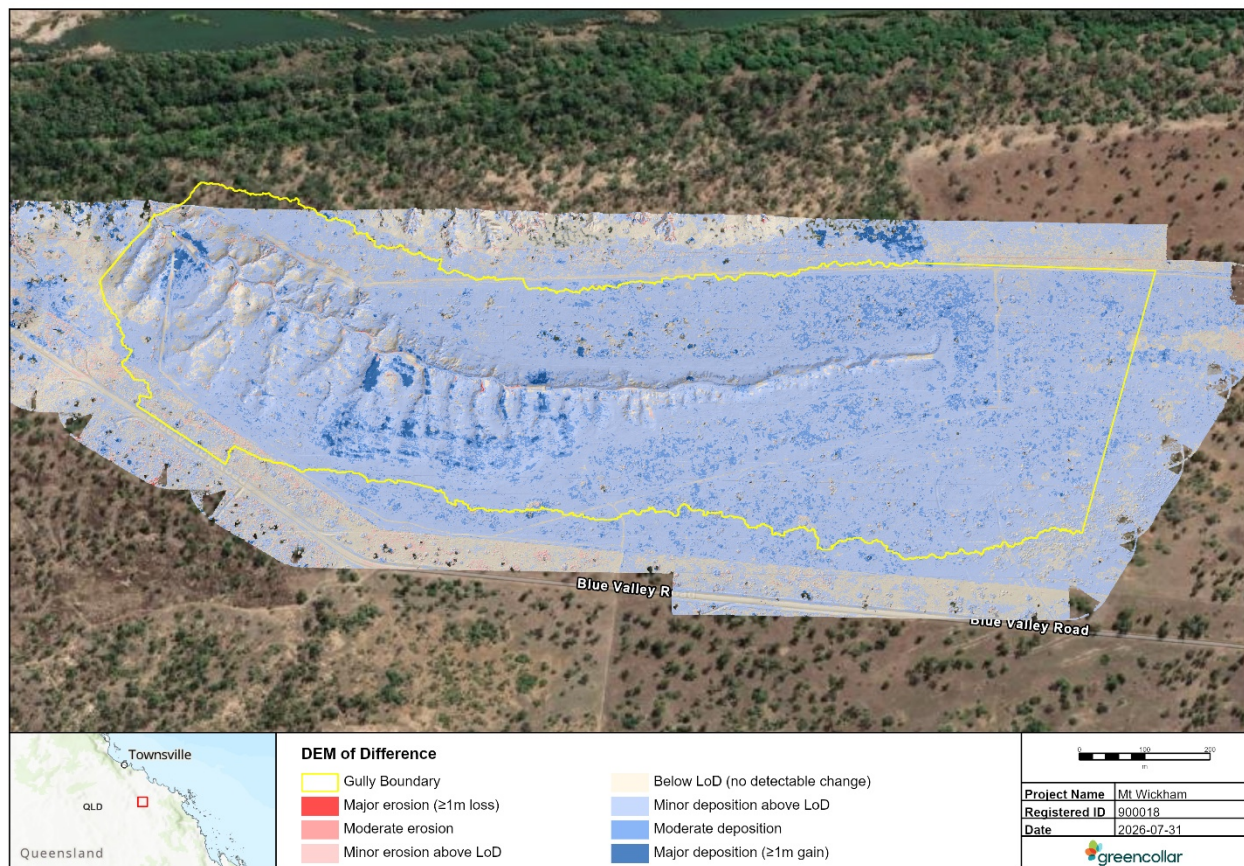


Figure 7 Resulting DoD between the post construction and post wet season aerial LiDAR surveys. Areas of major deposition are likely the result of false positive signal returns from high vegetation growth. Small occurrences of erosion in limited sections of the gully will be monitored to see if interventions are required.

7. Delivery of Reef Credits

As required under the existing Contract for the *Sale of Environmental Products* between GreenCollar and Ports North, GreenCollar intends to deliver the first tranche of 3,767 Reef Credits, generated from eligible gully remediation projects to Ports North by December 2027.

Actual sediment savings and Reef Credit generation will depend on the results of ongoing water quality monitoring and site reporting. The forward forecast of Reef Credits provided in Table 2 below has been updated based on additional fieldwork and gully baseline assessments, providing greater confidence in the modelled outcomes.

Table 2 Estimate of Reef Credit Delivery

Project Site	Estimate of Total Credits over 25-year project life	Estimate of Credits to be delivered in first reporting period (Dec 2027)
BRGR#1	35,171	3,767

Figures listed in Table 2 are estimated forecasts only and crediting is dependent on rainfall, results of site monitoring and credit verification.

The sediment savings from the gully remediation works are dependent on the volume of fine sediment that is prevented from reaching the Great Barrier Reef during the monitoring period, as compared to the baseline scenario of fine sediment loss that has been modelled. This can vary depending on the successful capture of

water quality samples during rainfall events and the effectiveness of the engineering controls put in place to halt erosion progression and capture fine sediments from the project site. Any credits from the project are subject to external verification prior to issuance.

For the Bowen River Gully Rehabilitation Project, an assumed effectiveness factor of 80% has been applied to the remediation. This means that the remediation works are assumed to reduce the volume of fine sediment prevented from reaching the Great Barrier Reef by 80% compared to the baseline 'business as usual' scenario.

This is a reasonably conservative assumption for the Bowen River Gully Rehabilitation Project that is informed by both onsite data and past performance of similar works carried out in the catchment.

The above estimates are also subject to any changes to the gully remediation methodology and the accounting tools that are mandated for use by the methodology.

8. Forward Workplan

While several potential sites were initially identified in the approved Offsets Management Plan Rev3 (2023), under the current methodology, further property assessments indicated that the sites do not meet the criteria for delivery, primarily due to factors such as technical feasibility, environmental constraints, landholder participation, and forecast financial return. Evaluations based on projected sediment reduction and remediation costs using the Reef Credit Gully Methodology further indicated earlier sites investigated do not generate a viable return at the current agreed credit price.

GreenCollar remains committed to delivering the required volume of Reef Credits from gully remediation projects to Ports North and will promptly advise of any further opportunities to accelerate development of additional projects.

9. Additional Site Images



Figure 8 Erosion scarp reshape area on 19th December 2025 showing successful grass recruitment.



Figure 9 Image of chute 5 on the 11th March 2026



Figure 10 Rock Chute 4 looking south, evidence of rill and gully erosion on batter. photo supplied by Verterra.