



Reef Trust Partnership Water Quality Program – Grazing Land Management Learnings and Recommendations Report

Rod Kerr March 2024

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1. Introduction

Consultant, Rod Kerr was engaged as an independent technical advisor to review the extent and quality of grazing land management (GLM) projects undertaken by delivery partners through the Partnership between the Australian Government's Reef Trust (RTP) and the Great Barrier Reef Foundation (the Foundation). Twelve individual site inspections were completed and detailed reports disseminated to appropriate delivery providers. This report provides a summary of overall findings to date and recommendations for future GLM programs.

2. Investment

Ten regional programs were funded (\$138 million) by the RTP to address water quality improvement targets impacting the Great Barrier Reef World Heritage Area. Activities such as improved farming practices, reduced fertiliser use, uptake of new technology, and improved land management practices are implemented to achieve an enduring reduction in the long-term end-of-catchment pollutant loads exported to the Great Barrier Reef.

To reduce fine sediment losses from grazing land management (GLM) in priority sub-catchments, \$51 million was invested in the Fitzroy (FI), Upper and East Burdekin (UEB), Bowen, Broken, Bogie (BBB) and Upper Herbert Water Quality programs to achieve a reduction of 208 kilotonnes of fine sediment per year through landscape remediation and GLM activities. This includes an investment of around \$17.2 million into GLM to support landholders through technical expertise, training, planning and incentives to implement improved stock management and improve GLM practices that increase ground cover and productivity and reduce sediment entering local waterways.

3. Independent Verification

To ensure that program outcomes are achieved with this significant investment, an independent technical advisor with appropriate experience in GLM was engaged by the Foundation to undertake semi-random on-ground project reviews for the validation of improved GLM practices. The purpose of the on-ground validation was to:

- verify the extent and quality of the Foundation-funded water quality (WQ) projects;
- verify the authenticity of the on-ground project representation in the Foundation's reporting system;
- gain an understanding of grazier experience when participating in Foundation-funded WQ projects; and
- seek feedback for continual improvement of the Reef Trust Partnership WQ Program.

Twelve property visits across three regions, BBB, UEB and FI, were completed with the property owners/managers, technical advisor (TA), the Foundation and on-ground delivery provider representatives. Prior to site visits, the TA reviewed:

- detailed project plans including property descriptions/background, project outlines, summary of works to be undertaken for the project, project area maps and project expenditure reports for the plans;
- SedNet and Paddock to Reef (P2R) Projector version 3 reports (as relevant) of estimated fine sediment savings and practice changes for each project site; and
- Paddock to Reef before and after questions, the reported project area (ha) and estimated sediment savings (tonnes/year as per P2R Projector v3 and landholder contract) as reported in the Foundation system.

The suite of on-ground projects reviewed included whole-of-property planning, riparian fencing, and infrastructure development to better manage grazing pressure. The property visits lasted for up to five hours depending on the size and complexity of the on-ground project and included one-on-one conversations with the landholder, and an inspection of on-ground project works and other relevant grazing management activities.

4. Findings

In-region relationships and delivery provider support are essential to the organisation and successful completion of verification site visits. Across the board, landholders were keen to allow access to their projects, were supportive of the program objectives, and appreciated the opportunity to host the visit and showcase their management practices. The discussion with landholders, while informal, was structured to understand key aspects of the RTP WQ program with the information consolidated in this report representing commonalities across the verification process with 12 landholders and three delivery providers across three regional programs. Key findings have been broken down in sections 4.1-4.5.

4.1 Communication

When communicating program goals, there is a consistent assumption across field staff that landholders are less interested in environmental outcomes than production outcomes:

- Water quality was generally not the focus for discussions with graziers when developing GLM projects funded for sediment reduction. Issues such as land condition, ground cover, erosion, soil health, management of grazing pressure, and production benefits were key points of discussions, on the assumption that improvements in these parameters will result in better water quality outcomes. However, when discussing their management approaches, landholders did raise the positive impacts of their projects on the water quality in their creeks and the flow-on effects downstream.
- Conservation objectives were not part of the discussions with riparian project landholders when many of the sites had very high conservation values.

Communication of outcomes by delivery providers:

Many of the landholders involved in programs have exemplary land management practices and a great story to tell; on-ground outcomes should be showcased through social media, written and video case studies, and on-property field events around leading grazing land management and riparian practices.

4.2 Engagement

Trust and credibility developed through long-term relationships and across many programs was key to successful engagement.

Engagement is achieved through a broad range of approaches including:

- Existing Networks: Utilising existing extension networks to promote project opportunities is a very effective way to recruit landholders to implement new water quality related practices.

- Training and Extension Activities: Workshops, field events and training activities provided points of contact, relationship development and opportunities to promote program involvement with a wide range of landholders.
- Direct one-on-one contact: Field staff cold calling priority landholders followed by property visits.
- Word-of-mouth: Targeting the appropriate prospective landholders leads to strong word-of-mouth engagements.

Ongoing engagement:

- Strong relationships developed between project field staff and landholders is critical to project success.
- One-on-one support is required for the development of project plans and applications for funding.
- Interpersonal skills and a thorough understanding of grazing systems is required by field staff to translate program objectives into projects which practically work for a specific grazing system while achieving water quality outcomes.
- Extension activities and access to technical support is important to ongoing learning and improved management of grazing properties.

4.3 Effectiveness

Effective and cooperative facilitation and coordination of the program (good relationship management with landholders and appropriate technical support) is essential for success.

- Incentive funding was instrumental to the acceleration of implementation of infrastructure development for management practices that landholders had been considering in long-term planning.
- Incentive funding was often the motivation to undertake a project that was deemed a lower priority and challenging to achieve such as subdivisional fencing of steep, broken country to manage grazing pressure.

4.4 Appropriateness

From site observations, project records, and discussions with owners/managers and field staff, all projects were being completed as per the project descriptions. The inspected project activities and associated management practice changes for the project areas, supported through the program, appeared appropriate for the intended outcome.

There was strong support for the funding being rolled out through a non-government organisation rather than government.

4.5 Legacy

- Practice changes being undertaken as a part of a funded project were often translated across the broader property through landholder investment and management.
- A whole-of-property approach to planning and delivery can accrue high, immediate, program returns.

5. Risks and recommendations

As a result of the verification process, potential risks have been identified and recommendations made to minimise creating similar risks in future funded GLM programs.

Table 1. GLM Independent verification findings

| | 5.1 Risks | 5.2 Recommendations |
|---------------------------------|--|--|
| Incentivised on-ground projects | Requirement for cost sharing can be a deterrent due to funds availability. Many family properties lack the financial, management and, often, labour/machinery resources to undertake large scale projects. | Incentives for GLM and riparian management are required to achieve outcomes; incremental changes affect whole-of-system changes. |
| Incentivised on-ground projects | Infrastructure installation is not a universal approach with accessibility of labour required to complete works (i.e. fencing and installation of waters) often difficult to access in a 12-month project window. | Allow utilization of existing on-property resources and purchase of some materials is a preferred method of project implementation for some landholders. |
| Embedding practice change | Requirement to maintain the fences and water infrastructure only until the end of the contract period may result in unintended outcomes if there is a lack of landholder buy-in for longer term maintenance and management. | Provide ongoing technical support for landholders to mitigate the investment risk over the medium to longer term. |
| Embedding practice change | Riparian fencing projects developed and implemented prior to the development of a GLM plan may result in unintended and or negative management outcomes. | Include grazing land management, nature conservation, soil conservation planning at the application stage to engender longer term stewardship values with riparian fencing projects. |
| Embedding practice change | While exclusion fencing is installed to protect the streambank from hoof erosion, livestock exclusion is often not the desired landholder management action for riparian areas; the general preference is to undertake some grazing as part of a rotation or for hazard reduction. | Clear management requirements agreed and articulated in contracts. |

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| Program delivery | Commitment to change, access to sufficient capital, management and logistical capability, and access to labour/contractors is required to deliver any project at property scale. | Establish realistic implementation timetables to account for seasonal, logistical, labour/contractor and other delivery considerations. |
| Program Delivery | Sharing and collaboration should be encouraged for best program outcomes. | Provide new service providers with the opportunity to engage with existing providers to ensure seamless sharing of/building on successful grazier relationships. |
| Program delivery | Activities and technical advice are required to support landholders in ongoing learning, to share ideas and to assist in adopting better practices. | Provide a wide range of entry points for landholder engagement; high-profile presenters to entice participation, longer-term planned extension programs, and smaller, more personal events/activities have been successful. |
| Program Delivery | Field officers may lack the capability to identify and articulate a property-specific case (often not a “run-of-the-mill” project) for management practice change suitable to a specific grazing system that will achieve sediment reduction outcomes. | Support and train field officers to build a solid understanding of grazing systems and program outcomes. |
| Program Delivery | There is a lack of clear and consistent assessment parameters around grazing management practices which result in both sediment reduction and positive change to both landscape and production outcomes. | Develop/utilise independent assessment panels for new project approval with clear and consistent assessment parameters. |
| Program Delivery | Whole-of-property planning projects may provide considerable production benefits from a transformed grazing landscape. | Account for private: public benefit in whole-of-property planning projects with adequate consideration of cost sharing arrangements. |

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| Program Delivery | Support is required to de-risk innovative grazing land management approaches for sediment reduction. | Well supported whole-of-property planning can accrue high, immediate, program returns. |
| Program Delivery | An increasing number of landholders have full-time off-farm employment. | Hold extension activities on weekends. |