

Annual Report 2022/23



Lake
Baroon
Catchment
Care
Group

Working with our community...for our waterways

LAKE BAROON CATCHMENT CARE GROUP

Annual Report 2022/23

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Partners	40

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Management Committee & Staff

President

Peter Stevens

Vice President

Bob Philpot

Secretary

Steven Lang

Treasurer (pre AGM)

Heather Spring

Treasurer (post AGM)

Peter Pamment

Committee Member

Steve Skull

Committee Member

Sally Watter

Committee Member

Marek Malter

Committee Member

Keith Schelberg

Committee Member

Heather Spring

Manager

Mark Amos

Office Manager

Claire Wynn

Project Planner

Luke Ferguson

Project Manager

Matt Bateman

Project Officer

Paul Mackay

Project Officer

Ivan Cafarella

LBCCG acknowledges the Jinibara as the traditional custodians of the Maleny area, and respects the role of ancestors and descendants. We acknowledge and respect the crucial role Aboriginal and Torres Strait people play within the wider Sunshine Coast community, understanding that the traditional custodians have cultural, spiritual, social and economic connections, responsibilities and knowledge that are invaluable to LBCCG when working on country.

Vision, goals & partners

LBCCG supports landholders (properties over 10 hectares and/or supporting at least 10 head of livestock) primarily to reduce risk to water quality, although much broader environmental outcomes are a consequence.

LBCCG's strength is engaging the unengaged, building strong, lasting relationships and developing practical land management and water quality issues. LBCCG prefers to deliver large, whole property projects, and projects to improve water quality are viewed favourably.

Our projects address:

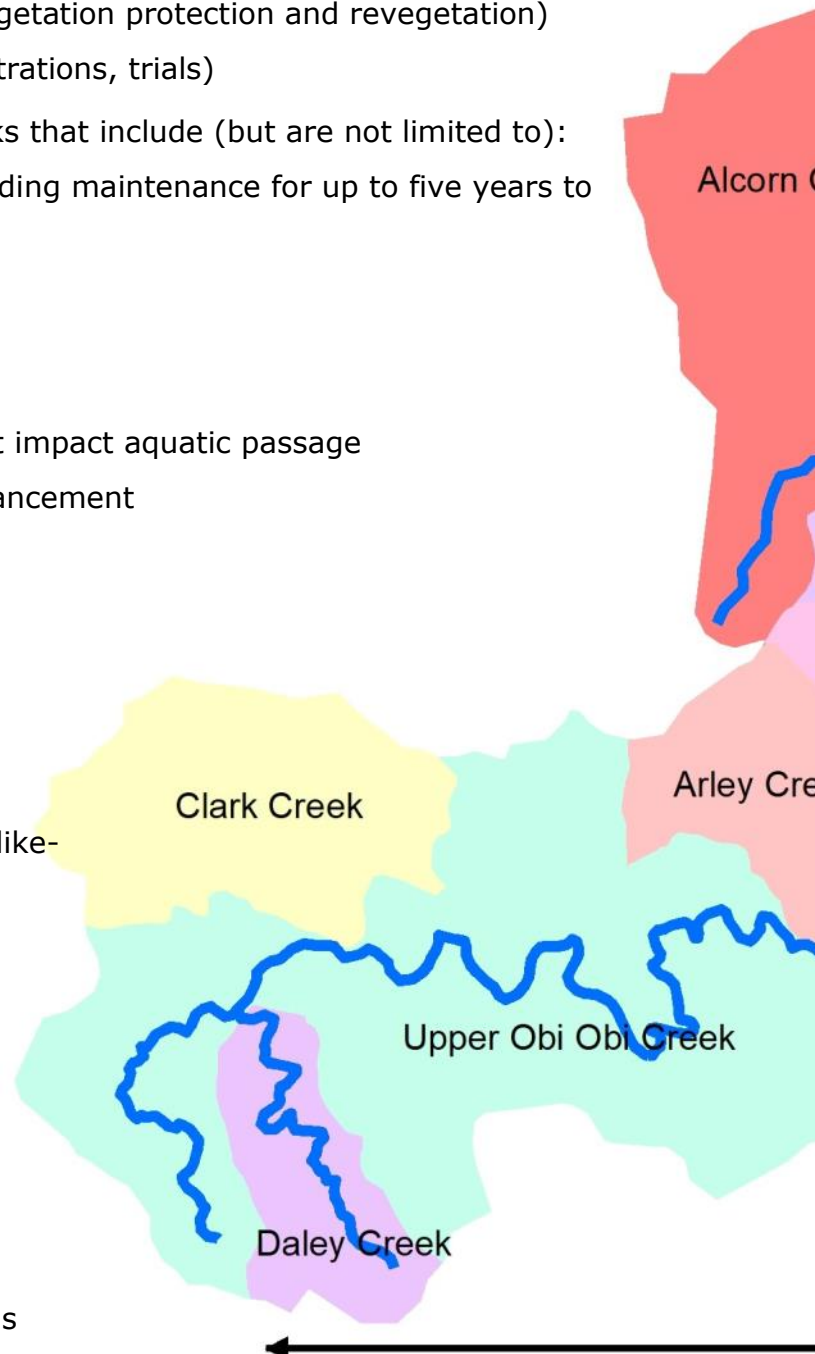
- erosion (bed and bank, landslips, diffuse and point source agricultural)
- inappropriate land use or other detrimental activities
- livestock access to waterways (nutrients and pathogens)
- herbicide and pesticide use (through provision of waterway buffers)
- agricultural run-off (buffers and formalisation of laneways and stream crossings)
- biodiversity and threatened species (vegetation protection and revegetation)
- awareness raising (workshops, demonstrations, trials)

To achieve this, we prioritise on-ground works that include (but are not limited to):

- riparian and landslip revegetation (including maintenance for up to five years to ensure effective establishment)
- riparian fencing
- off stream watering
- livestock laneway improvements
- permanent stream crossings that do not impact aquatic passage
- remnant vegetation protection and enhancement
- weed control
- dairy hardstand concreting
- dairy effluent management
- landslip management and rehabilitation
- field walks and workshops

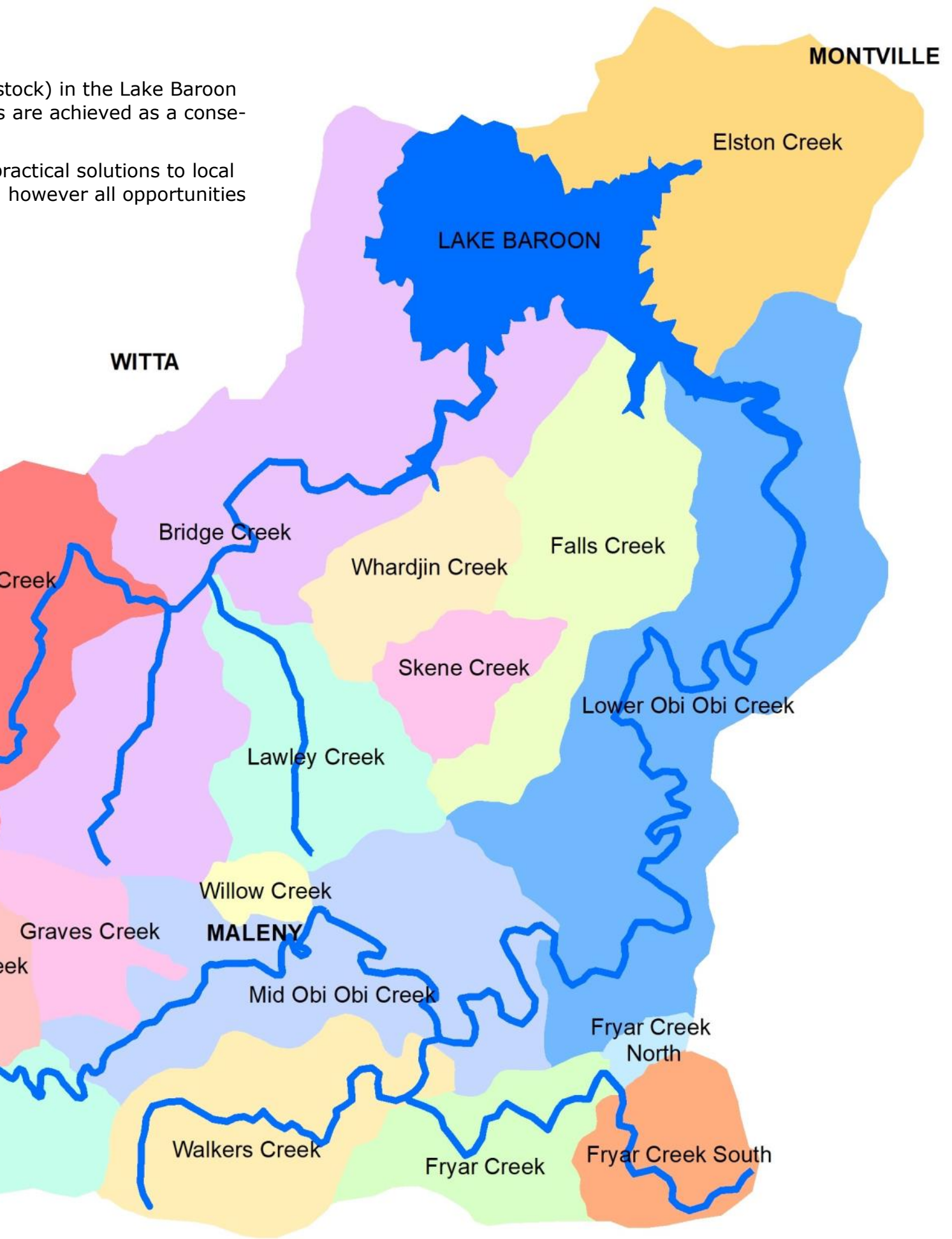
LBCCG maintains valuable partnerships with like-minded organisations including:

- East Coast TAFE
- Maleny District Green Hills
- Land for Wildlife
- Sunshine Coast Council
- Healthy Land & Water
- Department of Agriculture & Fisheries
- CSIRO
- Department of Transport and Main Roads



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however all opportunities



10 kilometres

Welcome to our Annual Report which reviews our performance for the past financial year. I will only mention here some brief highlights; the accompanying reports by our staff provide a much more detailed view of our operations.

We continue to operate with a wide range of programs and partners. To give some indication, this year we received income of almost two million dollars, similar to last year. We received a \$57,000 grant to develop and prepare projects for the Commonwealth and State government Disaster Recovery Funding initiative via Seqwater. These projects were approved and we will receive a further \$365,000 to implement them in the 2023/24 financial year.

It is important to note that over \$1.7 million of funding was spent within our local community area through local suppliers and services, making Lake Baroon Catchment Care not just an important environmental group but also an economic force within the community.

It is interesting to speculate on why our group receives such extraordinarily good funding and community support. Some would say it is the high value of the Lake Baroon Catchment to South East Queensland's water supply network. For my part I believe the key is our working model with its on-ground project delivery focus; it is our development of long and trusted relationships with all of our stakeholders: Seqwater, Sunshine Coast Council, our contractors and above all with landholders.

Photo: Installation of surface drainage (Falls Creek).

President's Report

Peter Stevens

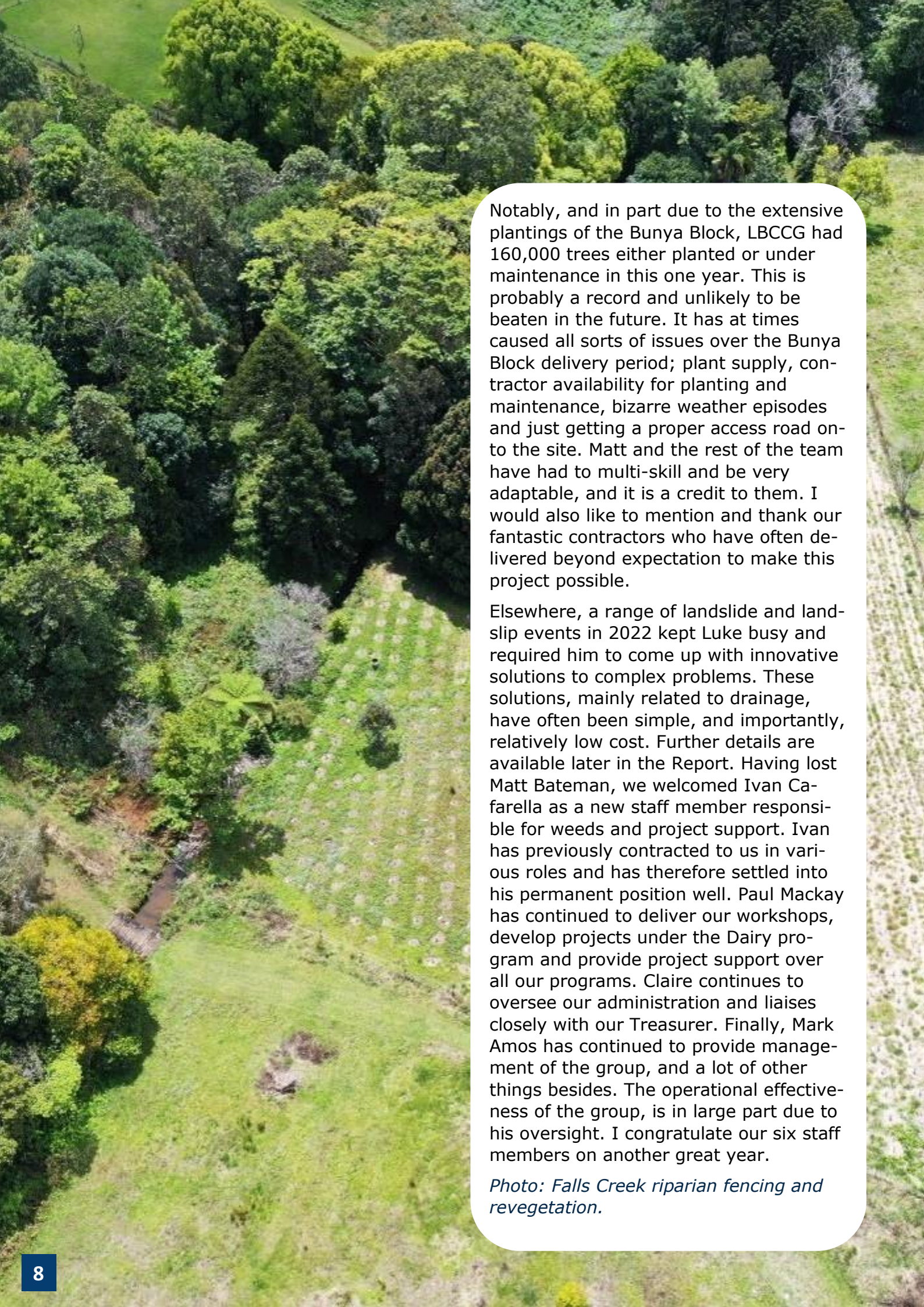


When landholders are willing and able to participate in developing meaningful projects for all parties, then further funding will flow. The trust we have developed with landholders is an inspiration. It is what motivates us and allows us to deliver the great projects in this report. I can remember times when significant funding was available and no projects were developed due to a lack of landholder interest. This conjecture will be important as changing climate and community expectation require a better standard of environmental management in all its forms.

On the project front, it is worth noting that the bulk of the Bunya Block project has now been delivered. Nearly all planting has been completed and there remains a long period of maintenance and delivery of some smaller project components. Despite challenging conditions over the last three years, Matt Bateman, along with some assistance of our other staff, planned and implemented a wonderful project; a project that has really transformed part of our landscape, and which will continue to evolve as plants grow and mature. It is therefore with great sadness that we note Matt has decided to take a well-earned break, we will miss his determination to get the job done. Matt was valuable part of our team for eight years. Hopefully he will return at some future date in another role.

Photo: Landslip fencing (Alcorn Creek).



An aerial photograph showing a dense forest of green trees on the left, a stream flowing through a grassy area in the center, and a fence line on the right. The scene is bright and sunny, with various shades of green and brown visible in the landscape.

Notably, and in part due to the extensive plantings of the Bunya Block, LBCCG had 160,000 trees either planted or under maintenance in this one year. This is probably a record and unlikely to be beaten in the future. It has at times caused all sorts of issues over the Bunya Block delivery period; plant supply, contractor availability for planting and maintenance, bizarre weather episodes and just getting a proper access road on to the site. Matt and the rest of the team have had to multi-skill and be very adaptable, and it is a credit to them. I would also like to mention and thank our fantastic contractors who have often delivered beyond expectation to make this project possible.

Elsewhere, a range of landslide and landslip events in 2022 kept Luke busy and required him to come up with innovative solutions to complex problems. These solutions, mainly related to drainage, have often been simple, and importantly, relatively low cost. Further details are available later in the Report. Having lost Matt Bateman, we welcomed Ivan Caffarella as a new staff member responsible for weeds and project support. Ivan has previously contracted to us in various roles and has therefore settled into his permanent position well. Paul Mackay has continued to deliver our workshops, develop projects under the Dairy program and provide project support over all our programs. Claire continues to oversee our administration and liaises closely with our Treasurer. Finally, Mark Amos has continued to provide management of the group, and a lot of other things besides. The operational effectiveness of the group, is in large part due to his oversight. I congratulate our six staff members on another great year.

Photo: Falls Creek riparian fencing and revegetation.



On the Committee front, Sally Watter has stepped down, my thanks for her input over many years whilst also being a very busy person. Peter Pamment kindly stepped into the Treasurer's role replacing Heather Spring who retains a seat on the Committee. Peter brings a wealth of business experience to the group and his calm and unflappable style is much appreciated. I would like to thank our Committee for their time and effort during the year, as always, a great group of people to work with.

Lastly, but most importantly, I must thank our generous funding partners, particularly Seqwater and the Sunshine Coast Council. The staff from these organisations always make themselves available to us and provide essential support (in addition to the funding) and really add to what is possible, both within and without the Lake Baroon catchment.

Photo: LBCCG contractors work hard and are remunerated accordingly.

Treasurer's Report

Peter Pamment



The 2022/23 financial year has seen a successful year for the finances of Lake Baroon Catchment Care Group.

Now with the significant Bunya Block project in full swing, we have enjoyed a moderate surplus of \$20,676.74. We have been assisted by the rise in interest rates also which contributed \$12,155 to income. Next financial year should be similar until the Bunya Block project starts to run down.

The total budget for 2022/23 was \$2,391,942; including monies carried forward from 2021/22, \$519,760 administrative funding and \$1,333,062 project funding. These figures do not include GST.

Our income streams are as follows:

Project Funding

Transport & Main Roads	\$7,500.00
Healthy Land & Water	\$42,240.00
Seqwater	\$1,283,322.00
Total Project Income	\$1,333,062.00

Administrative Funding

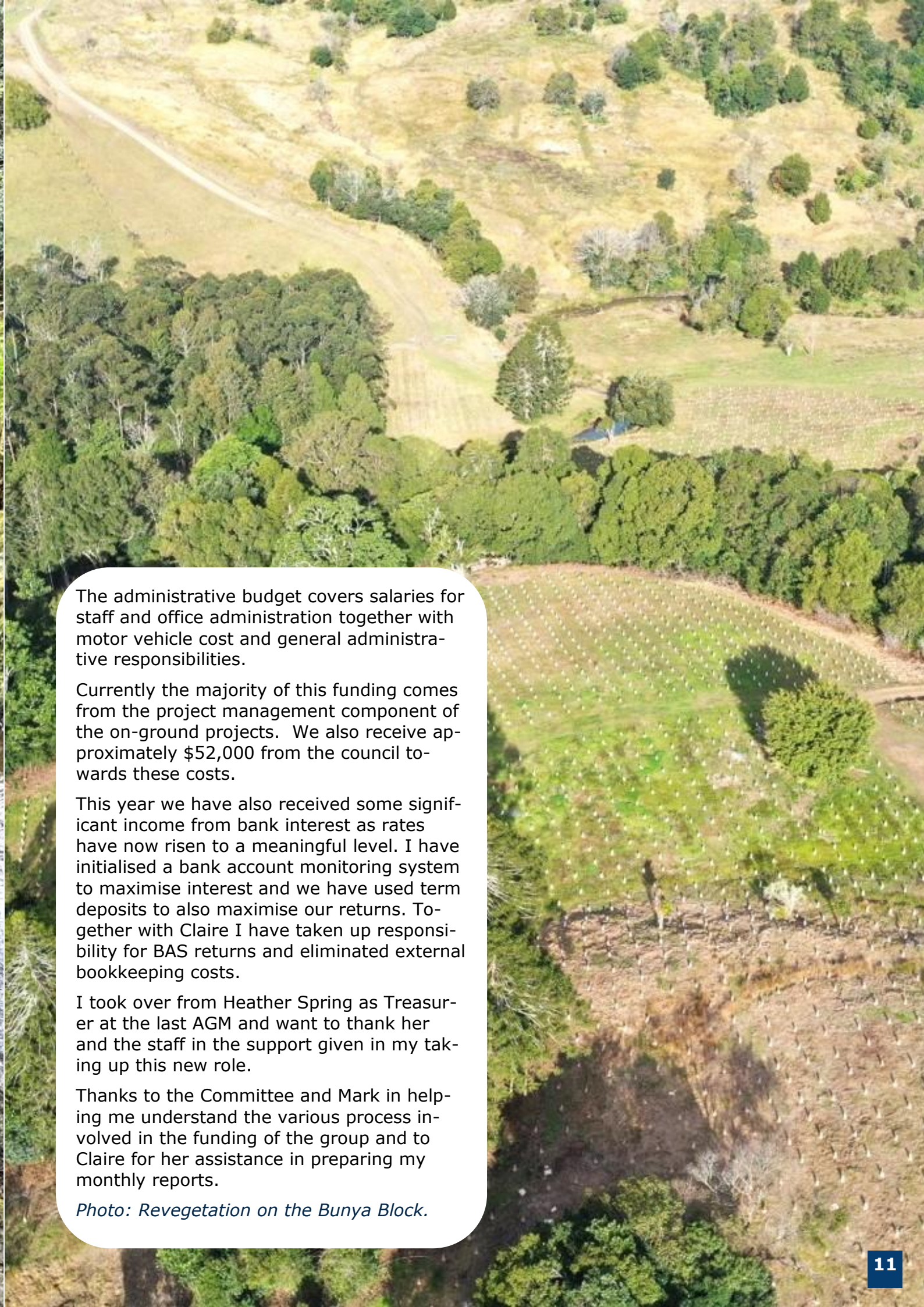
Seqwater	\$447,144.00
Sunshine Coast Council (Environment Levy)	\$52,000.00
Material sales:	\$5,559.50
Other income (interest, IGA, CBC)	\$15,057.00
Total Admin Income	\$519,760.00

Clearly our main income comes from Seqwater, which will require monitoring and management going forward.

Total expenditure was \$2,082,649.40; made up of \$499,083.76 admin (depreciation included) and \$1,583,565.64 project expenses.

Of this expenditure 82% was spent locally and 18% spend outside the district. This is an improvement of last year. This does not include the contributions by local landholders in our various projects which just adds to the local value.

Photo: Upper Obi Obi Creek riparian fencing and revegetation project.

An aerial photograph showing a landscape with a dirt road curving through the top left, a dense forest of green trees in the middle, and a field of crops in the bottom right. The terrain is hilly and appears to be a mix of natural vegetation and agricultural land.

The administrative budget covers salaries for staff and office administration together with motor vehicle cost and general administrative responsibilities.

Currently the majority of this funding comes from the project management component of the on-ground projects. We also receive approximately \$52,000 from the council towards these costs.

This year we have also received some significant income from bank interest as rates have now risen to a meaningful level. I have initialised a bank account monitoring system to maximise interest and we have used term deposits to also maximise our returns. Together with Claire I have taken up responsibility for BAS returns and eliminated external bookkeeping costs.

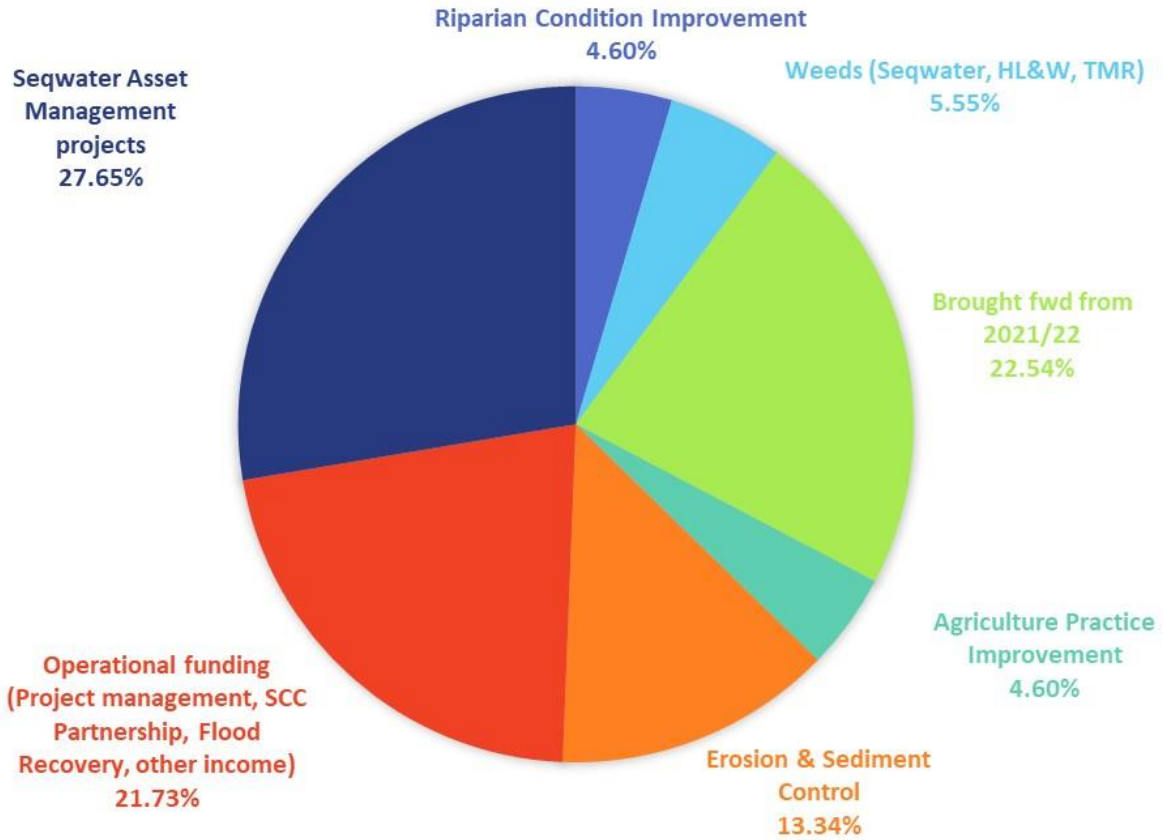
I took over from Heather Spring as Treasurer at the last AGM and want to thank her and the staff in the support given in my taking up this new role.

Thanks to the Committee and Mark in helping me understand the various process involved in the funding of the group and to Claire for her assistance in preparing my monthly reports.

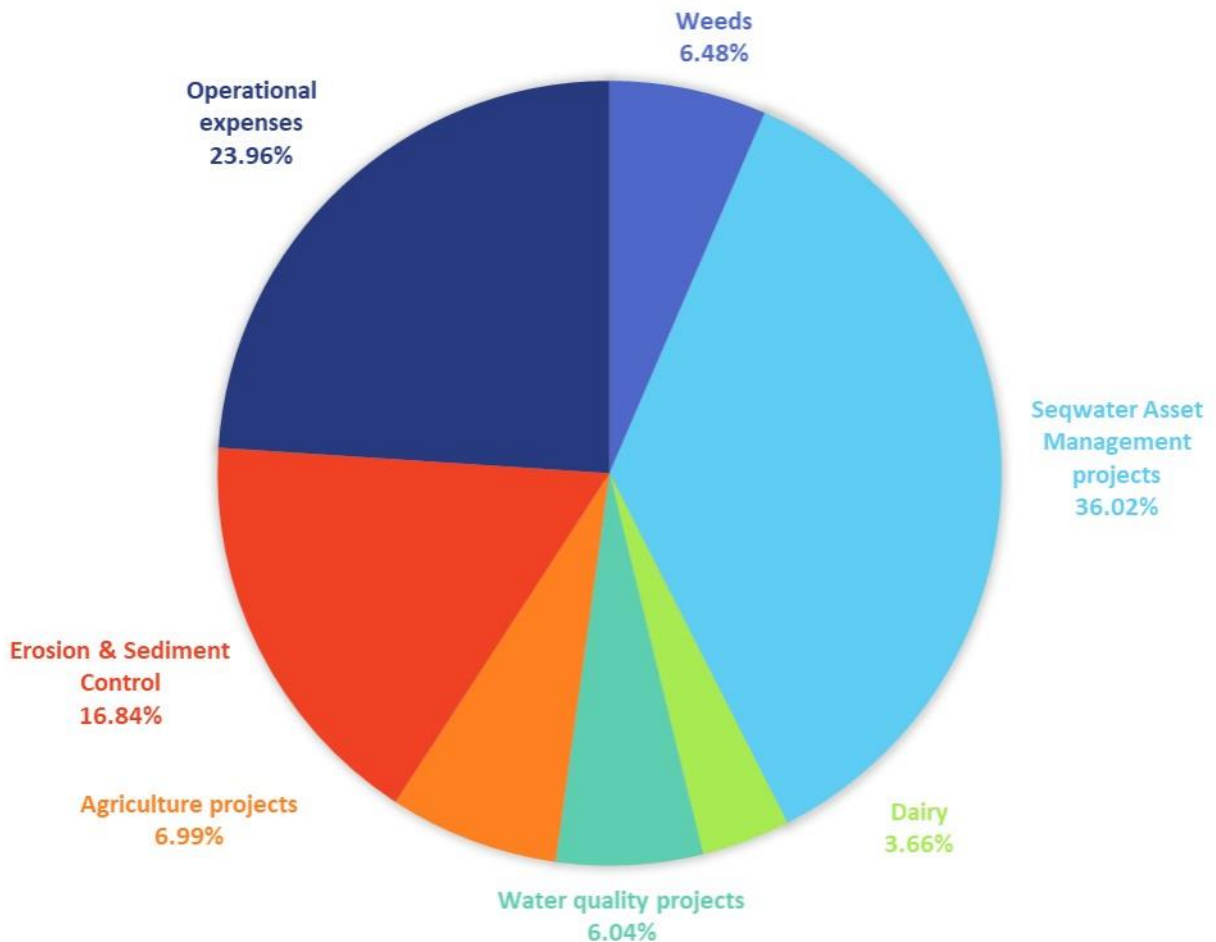
Photo: Revegetation on the Bunya Block.

Income & Expenditure

INCOME (INCLUDING 2021/22 BROUGHT FWD) \$2,391,942.61



EXPENDITURE \$2,082,649.40



Governance

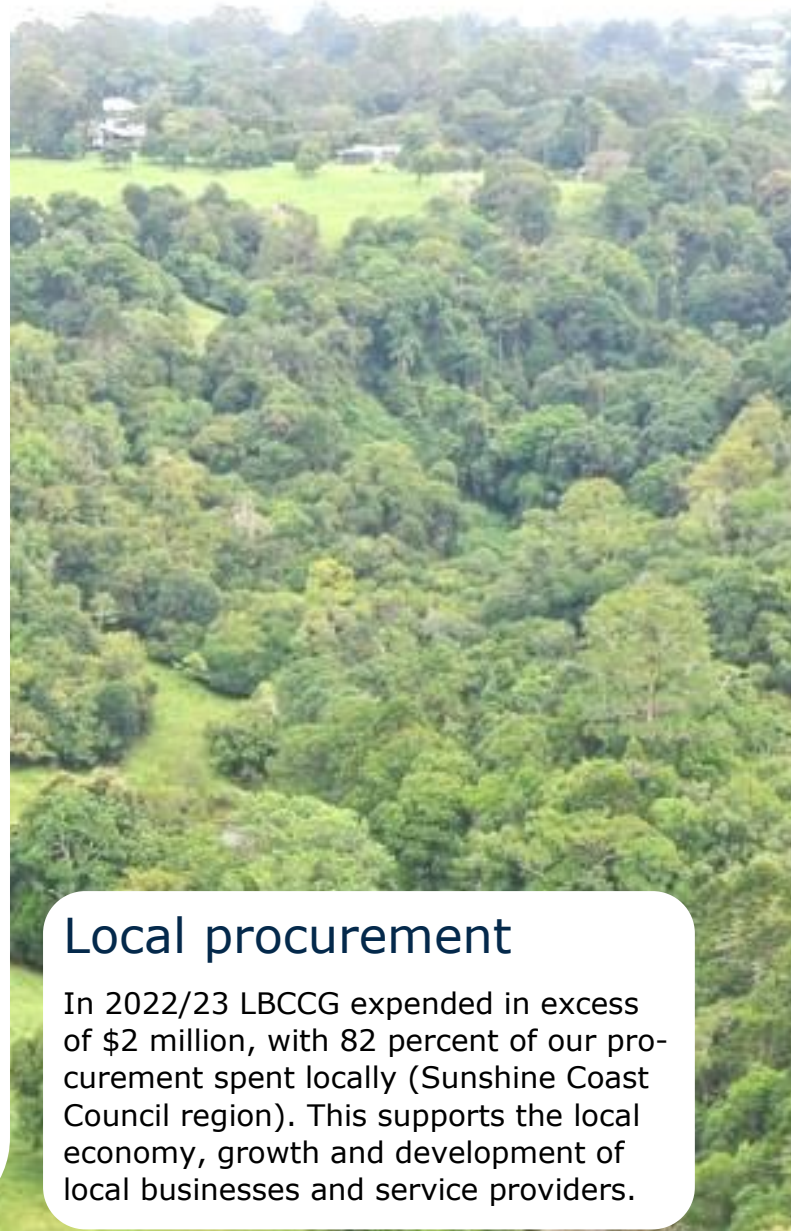
Lake Baroon Catchment Care Group continued to be a responsible local not for profit entity operating in accordance with applicable legislation with a focus on ethical business activities and strong relationships between the Management Committee, employees, community, government, clients and other key stakeholders.

We take pride in robust governance, culture and organisational performance.

We strive to:

- commitment to organisational responsibilities and accountabilities
- provide strong financial stewardship and fiscal responsibility
- maintain compliance with legislation, policy, standards and controls
- continually improve practices, procedures and ethical decision making with continuous improvement and transparent reporting
- involve the community as a key stakeholder in decision making and consultation

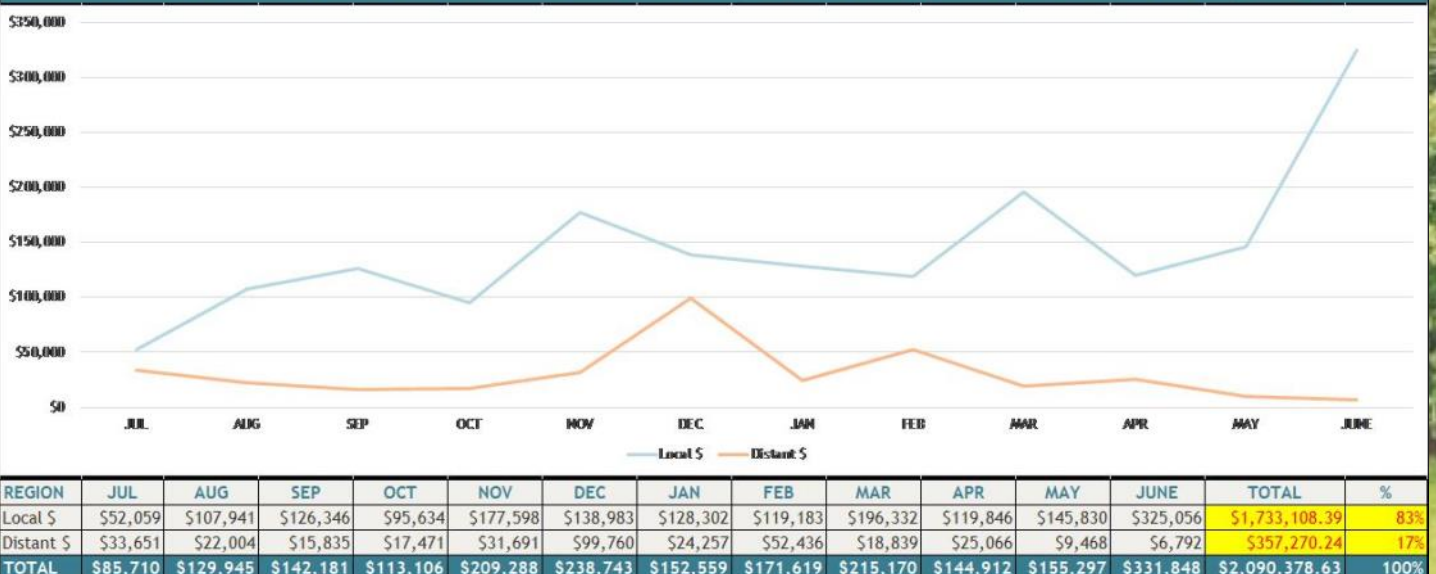
LBCCG is committed to ensuring community and customer expectations are met while strengthening capability, accountability, transparency and leadership to maintain ongoing confidence in the integrity and effectiveness of the Group.



Local procurement

In 2022/23 LBCCG expended in excess of \$2 million, with 82 percent of our procurement spent locally (Sunshine Coast Council region). This supports the local economy, growth and development of local businesses and service providers.

LBCCG LOCAL VERSUS DISTANT EXPENDITURE 2022-2023 (does not include all outgoings)



Manager's Report

Mark Amos

The 2022/23 financial year in many ways has been the culmination of many years of hard work. Turn-over peaked, staff numbers increased and on ground activity not only expanded but innovation and work quality improved. All this despite the lingering hangover of the pandemic.

Covid increased the cost to do business, mainly through higher material and labour costs but the LBCCG business model ensured increases and labour shortages were minimised. In 2021/22 we lost several long-term contractors supplying bush regeneration services however we were able to assemble a new team to deliver revegetation and weed management services.

The aftermath of the February 2022 'rain bomb' continued to play a major role in our works program, particularly the repair of several resultant landslips. The North Maleny site was visually prominent but over a period of 12 months the site was reinstated with extensive drainage, water diversions and ultimately revegetated to provide long-term stability. This project encouraged 'thinking outside the box' and several innovative solutions have been trialled (sub-surface drains, revegetation densities). The project highlighted the mantra – challenges provide opportunities!

Another 'newish' innovation was trialled in the Bridge Creek sub-catchment. A series of wells or 'sumps' were installed across a steep hillslope contributing large volumes of water, not only during heavy rainfall but throughout the year via underground springs. Two properties and large areas of hillslope suffered considerable instability and soil loss; the draining of upper hillslope water aquifers is hoped to improve lower slope stability.

Flooding generally causes short term issues, albeit they can be quite severe, but the ongoing La Nina event caused unexpected damage. Most of our revegetation projects are in riparian zones and the persistent wet conditions resulted in the loss of several thousand newly planted seedlings from waterlogging. Fortunately, we were able to source flood recovery funding (Disaster Recovery Flooding Arrangements) to be implemented in 2023/24.

Sadly, we lost long-time staff member Matt Bateman. Matt managed the large and complex Bunya Block project and was instrumental in planning and implementing the vast majority of works.

Photo: Networking with other source protection groups.



Matt has decided to step away from full time work for a while, but is always welcome to return to LBCCG in the future.

During the year we welcomed Ivan Cafarella to the team to manage our weed programs and provide project support to revegetation works. Ivan has extensive knowledge and skills, particularly in Madeira and Cat's claw management and quickly become an asset to the organisation.

We reorganised staff roles somewhat this year with Luke taking responsibility for detailed project planning and producing Project Plans. On ground works supervision is shared between Ivan and Paul – organising, supervising and reporting on the various works we implement. As Manager, I develop high level budgets and implementation plans, and initially meet potential project participants, liaise with stakeholders and provide technical advice on various work aspects.

Claire provides the crucial role of ensuring the office runs smoothly and efficiently. This is by no means a simple task, particularly with the complex recording of financial budgets and expenditure. The diligence however pays off when we can track every single dollar funded and spent, and confidently know the true cost to do business.

Minor Management Committee changes this year occurred seamlessly - a credit to the organisation under the leadership of Peter Stevens. Each of the committee of seven provide different skills and knowledge and share an unwavering commitment to LBCCG visions and goals. We farewelled Sally Watter from the committee after many years of distinguished service and welcomed local identity Peter Pamment, stepping straight into the Treasurer's role.

LBCCG's success could not happen without the incredible support from landholders. The evolution and growth of our programs clearly shows an acceptance to implement projects that benefit all.

Additionally, I must acknowledge our funding partners, particularly Seqwater; we receive incredible support from Julian and Tim and our success is shared with them.

I look forward to working with you all in 2023/24.

Photo: Managing surface and sub-surface flow is critical for stabilising hillslopes and landslips.



LBCCG Programs

In 2022/23 LBCCG delivered five key Programs and several smaller projects:

- Riparian Condition Improvement (Water Quality) - on ground projects targeting graziers, horticulture and other large properties, implementing projects that provide environmental outcomes more than direct productivity benefits.
- Riparian Condition Improvement (Weeds) - working towards the eradication of Cats claw vine in the catchment (95% completed); ongoing management of Madeira vine (reduction of incidence/mass by at least 70%); and strategic management of Celtis. Control of emerging aquatic weeds Rotala and Bacopa.
- Agricultural Practice Improvement—targets graziers, implementing projects addressing agricultural best management practice including workshops. Includes direct productivity benefits to landholders.
- Erosion and Sediment Control—stabilisation and repair of catchment landslips, raising awareness of landslip causes, prevention and management, and maximising biodiversity outcomes by planting a diversity of species wherever practical.
- Seqwater Asset Management—planning and implementation of on ground works on properties purchased by Seqwater.

Other projects included:

- Dairy Program - upgrading of dairy effluent management systems and other water quality related works on catchment dairies.
- Department of Transport & Main Roads weeds—management of priority weeds on DTMR road reserve.
- Healthy Land & Water Upper Stanley River vine weeds project.

Photo: Riparian revegetation on the Bunya Block.

Highlights 2022/23

61,494 trees
shrubs & ground-
covers planted

16.35 hectares of
weed management

4,588 metres of
riparian fencing

Excluded livestock
from 2,471 metres
of riparian zone

Improved land
management on at
least 118
hectares

Installed 17
alternative
watering points
(troughs)

Maintained over
100,000 trees from
previous projects

Treated 21
hectares of un-
stable hillslopes

Remediated 17
erosion sites

Engaged 252
landholders,
stakeholders &
community
members

Riparian Condition Improvement (Water Quality) & Agricultural Practice Improvement

The key outcome of the Riparian Condition Improvement (water quality sub-program) and Agriculture Practice Improvement programs is reducing livestock contact with natural waterways. For convenience these two separate programs are combined as funds from both programs are often invested on the same project. RCI funds usually cover revegetation works as landholders usually gain limited commercial benefit from this type of work. Works that can be considered as providing an agricultural benefit (riparian fencing, off stream water, stream crossings) are funded under the API funding.

Reducing pathogen delivery to waterways through riparian fencing generally necessitates the provision of further complimentary works. Removing livestock access to natural water means providing alternative water (off stream water). Livestock crossing of streams is concentrated to just a couple of points so low-level concrete crossings minimise erosion and also provide safe and efficient passage. Fenced riparian zones can be very difficult to manage, particularly for weeds so revegetation provides a permanent solution to weeds (independent of all the other considerable benefits that native vegetation provides). Other works (laneways and others) complimentary to the key aim of reducing faecal material entering waterways are also completed.

In 2022/23 five new projects were implemented, works were completed on four projects from the previous financial year, the popular workshop series continued and maintenance of a further 12 older projects continued (revegetation projects).

Photo: The demand for revegetation continues to climb despite LBCCG moves to reduce plantings. The number of plants currently under maintenance requires significant resources and investment.

The program delivered:

- 2,803 metres riparian fencing
- 4,700 stems planted
- 19,078 plants maintained
- 0.3 hectares of erosion treated
- Two off stream watering systems/13 troughs installed
- two hectares weed management
- four workshops (with 125 attendees)
- 23 landholders engaged—on ground projects



Projects during the year continued to first and foremost protect riparian zones. Some projects are so large that they require implementation over multiple years. An example of this was the Engle project on the mid-Obi where prior to two kilometres of fencing being erected in 2023/24, an extensive off stream watering system was installed in 2022/23. Staging projects in this way cements landholder confidence in LBCCG abilities and intentions.

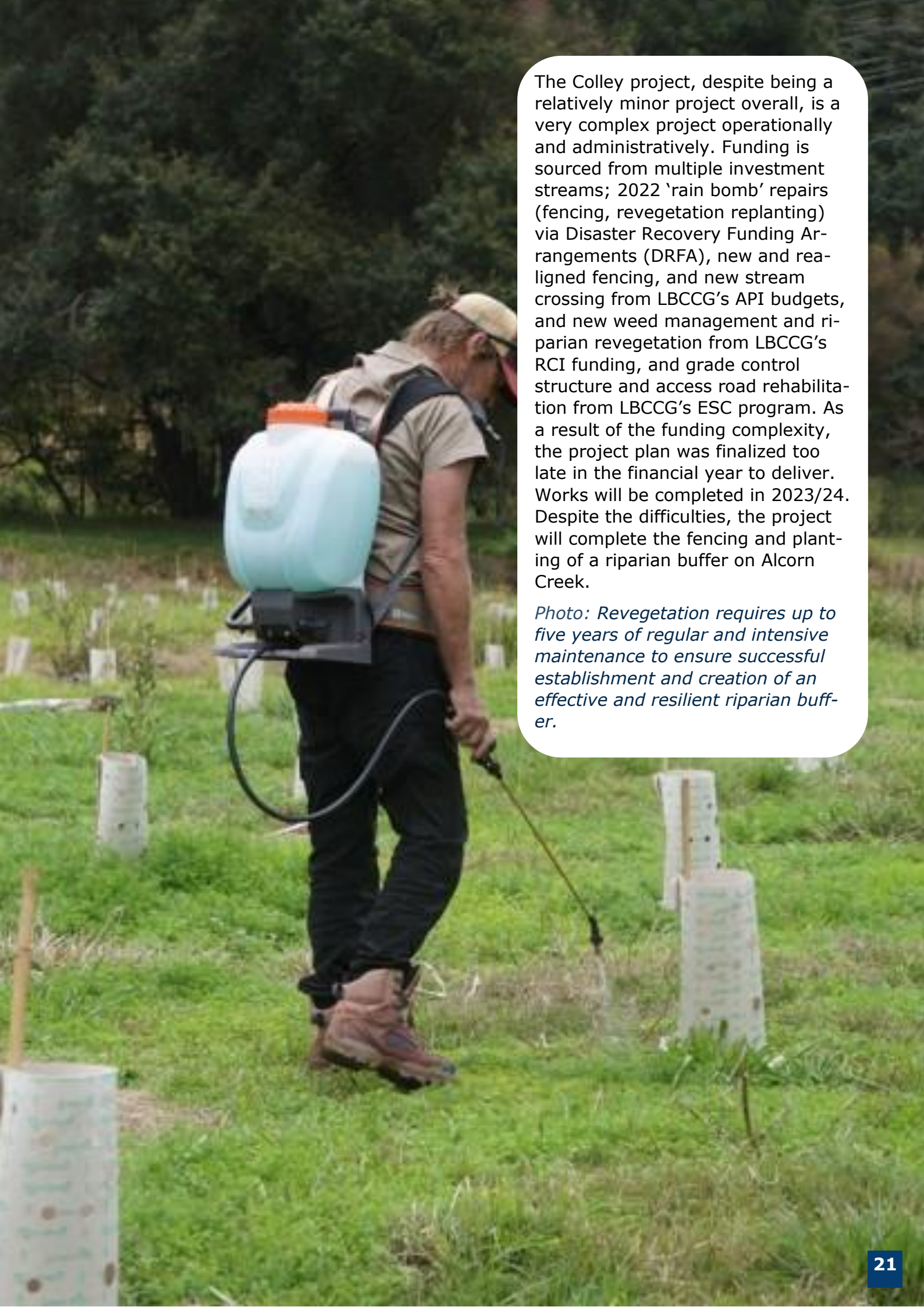
Photo: Off stream watering troughs are located on high points as far from waterways as practically possible. This results in faecal matter carrying pathogens having little chance of reaching streams.

The Martin project in contrast delivered the Obi fencing component this year with the alternative water to be installed in 2023/24. The Martin property, a dairy until 2013, has an existing off stream water system, albeit obsolete and unable to cope long term without access to the water of Obi Obi Creek.

The Crick project is an example of both a multi stage project delivered over multiple years and a project that accessed both RCI and API funding. Stage Four of fencing and revegetating the Alcorn Creek riparian zone; the project also included the extension of the existing off stream watering system. Sunshine Coast Council provided weed management funding to the landholder under the Landholder Environment Grants program. A short length of fencing enabled the planting of 1,500 trees on the bank of the creek.

Photo: Stream crossings are installed in association with riparian fencing eliminating erosion in high traffic areas.





The Colley project, despite being a relatively minor project overall, is a very complex project operationally and administratively. Funding is sourced from multiple investment streams; 2022 'rain bomb' repairs (fencing, revegetation replanting) via Disaster Recovery Funding Arrangements (DRFA), new and realigned fencing, and new stream crossing from LBCCG's API budgets, and new weed management and riparian revegetation from LBCCG's RCI funding, and grade control structure and access road rehabilitation from LBCCG's ESC program. As a result of the funding complexity, the project plan was finalized too late in the financial year to deliver. Works will be completed in 2023/24. Despite the difficulties, the project will complete the fencing and planting of a riparian buffer on Alcorn Creek.

Photo: Revegetation requires up to five years of regular and intensive maintenance to ensure successful establishment and creation of an effective and resilient riparian buffer.

The final new project for the financial year involved three landholders on Falls Creek. Falls Creek has been targeted heavily by LBCCG as it is a relatively small sub-catchment with relatively intensive grazing and significant erosion (landslips). We realistically have the opportunity to have all permanently flowing streams in the sub-catchment protected in the next couple of years. Therefore, investment in the sub-catchment provides significant outcomes. The project continued further riparian fencing and revegetation on the Warner and Willims properties and also included the smaller Kearney holding. Despite actively trying to reduce planting numbers this year (to reduce stems under maintenance) demand has been very high including the 1,900 stems planted on the Warner and Kearney properties.

Several other projects carried over from 2021/22 were completed and 27,000 trees from previous years revegetation projects were maintained. Revegetation maintenance for 3 to 5 years is essential to ensure effective riparian buffers are established (a minimum of 75% survival rate after 5 years is required).

Photo: Riparian fencing on the Crick project (Alcorn Creek). Fencing installed is always of the highest quality to ensure longevity.



The Agricultural workshops continued this year with four events:

- Animal Health (livestock transport, parasite lifecycles and habitat, intensive livestock management systems & quarantining livestock for parasite control)
- Farm Safety (preventing and managing injuries & using the right equipment for farm tasks)
- Weed & Pest Management (workshop held in partnership with Sunshine Coast Council – emerging weeds, new control techniques & Biosecurity obligations)
- Women in Agriculture (native bees, Sunshine Coast ABC journalist Jennifer Nichols, European bees & livestock handling)

The workshops once again proved popular with 125 attendees, particularly pleasing as they are invite only and not widely advertised (ensuring local graziers are targeted). Workshop topics all have a connection to water quality but are largely current topics and landholder driven. Venues are varied with visits to local properties a key focus. We are indebted to Maleny Cheese, Maleny Community Centre and Mary Cairncross Scenic Reserve for venues and Maleny Bakery for exceptional catering services.

Critically attendees are not the same 30 individuals each time with new landholders making up at least 20% each workshop. Events are kept as informal as possible with ample time for socializing before, during and after to encourage peer to peer discussions and learning.

Photo: Animal Health workshop held at Maleny Community Centre. Venues were varied with an emphasis on interesting locations.



Weed Program

The long-running weed program continued this year with some minor changes. The discovery of new Madeira vine infestations increased beyond expectations so Celtis control was restricted to immature infestation control rather than costly mature tree removal. Although Madeira is widely spread throughout the catchment, it is often located along road corridors, urban areas and in association with habitation. This, no doubt suggests the key mode of spread. Although regularly found in riparian zones it has not spread to the extent we would expect. This means that we still have a realistic chance of achieving local control – not eradicated, but kept at levels that do not significantly threaten catchment waterways.

As mentioned, Celtis management was limited this year, but a more intensive effort will be implemented once Madeira and Cats claw vines are sufficiently under control. Birds are the key spreader of this large woody weed and thickets of seedlings can occur just about anywhere so when found associated with vine weeds they are controlled. This is currently a very cost-effective method of management.

Cats claw vine in the Lake Baroon catchment is effectively eradicated. This means that no new sites are being identified, all sites are regularly treated or monitored to ensure there is no seeding and/or spread and the likelihood is the weeds will be totally eradicated in the near future. Of course we will need to stay vigilant to new plants being brought into the catchment either by accident or deliberately!

Photo: Madeira vine in close proximity to Baroon Pocket Dam is highest priority as propagules have only a short distance to travel to the inaccessible vegetation around the Dam.



The program delivered:

- 5.5 ha of Madeira vine management on 91 sites (at a cost of \$52,519)
- 0.1 ha of Celtis management on three sites (\$ undetermined)
- 0.5 ha of Cats claw vine management on nine sites (\$2,100)
- 0.05 hectares of Salvinia management on two sites (\$250)
- Approximately 100 landholders engaged
- Department of Agriculture & Fisheries and CSIRO engaged to trial control of emerging aquatic weeds on two sites (*Rotala* & *Bacopa*)

Although a lower priority for LBCCG, two *Salvinia* infestations were treated in 2022/23. *Salvinia* control is problematic. Many landholders are incapable of treating the weed (elderly, lack equipment, poor skills, lack of financial resources), are resistant to herbicide control and of course the difficulty in eradicating the weed. The two sites treated were considered high priority and have a realistic chance of eradication or at least maintained at low infestation levels (top of discreet catchments, committed landholders).

Planning for aquatic *Rotala* and *Bacopa* control finally translated into on-ground action in partnership with Department of Agriculture & Fisheries and CSIRO. *Bacopa* on a small dam in North Maleny was treated once with amazing results – appearing to have achieved eradication. The herbicide used on *Bacopa* is commercially available and any new outbreaks of *Bacopa* can be confidently controlled by LBCCG in the future. The *Rotala* in the upper Falls Creek catchment requires further evaluation, trials and treatment as part of the process of registering a new herbicide in Australia for control. The trials remain positive.

Photo: Spraying of aquatic Rotala in Fryar Creek sub-catchment.

Healthy Land & Water Upper Stanley River vine weeds

Vine weed management continued in the Upper Stanley River catchment (upstream of Woodford) re-treating sites visited in previous years and gradually expanding the program into new areas and sites as funding allowed. Funded by Healthy Land & Water, it is more cost effective and efficient for LBCCG to complete weed management. A social media campaign in Peachester to locate new infestations was largely ineffective, possibly due to poor identification skills or local indifference, particularly when there has been little engagement in the area previously by Landcare. A more intensive engagement campaign is planned for November 2023 and March 2024 (when vines are flowering and far more visible).

Currently managed infestations are generally large and well established with many more treatments over multiple years required to achieve significant control.

Photo: Madeira vine treatment by applying Vigilant Gel; the safest and most effective control method.

The project delivered:

- 2 ha of Madeira vine management on 19 sites (at a cost of \$32,242)
- 0.5 ha of Cats claw vine management on five sites (\$5,644)
- 24 landholders engaged

Department of Transport & Main Roads weeds

An on-going funding arrangement with TMR is crucial to ensure all priority weed sources are managed on all land tenures. Road reserves are significant spread paths for weeds, particularly Madeira vine; tubers and fragments spread by road maintenance vehicles and slashers.

Local TMR roads all follow ridge lines and cross numerous waterways. Weed infestations on road reserves are high risk as often there is no one taking responsibility to manage weeds.

LBCCG with the TMR funding controls priority weeds on the following roads:

- Maleny Landsborough Road
- Maleny Montville Road
- Maleny Kenilworth Road
- Maleny Stanley River Road

In total approximately 50 kilometres of roadside (or 20 hectares) is treated for Madeira and Cats claw vines. Notably the funding is not catchment-specific so management extends as far east as Landsborough, north to Flaxton, west to Witta and south to Boorobin.

Photo: Madeira vine treatment adjacent to the Maleny Montville Road. Note a previous visit has damaged half the infestation but requires follow up. Large infestations have multiple stems making management very difficult.

The project delivered:

- 0.5 hectares of Madeira vine management on 20 sites (at a cost of \$9,150)



Erosion & Sediment Control

The ESC program targets unstable hillslopes in the catchment that deliver, or have the potential to deliver high volumes of sediment to Baroon Pocket Dam. Excessive sediment reduces dam capacity and results in high turbidity resulting in difficult and costly production of potable water. Naturally occurring phosphorus binds to soil particles and transported to the dam contributing to blue green algae blooms. Erosion and run off also transports faecal material to the dam and is high risk to potable water.

In 2022/23 LBCCG worked with eight landholders on various projects; some of which were directly as a result of the impacts of the February 2022 'rain bomb'. The major project for the year was the remediation of the Whitaker landslip with extensive surface and sub-surface drainage and reinstating as much of the disturbed soil as possible. Almost 10,000 cubic metres of soil was moved over many months (saturated soil was stockpiled and drained before re-compaction) ensuring it was mixed evenly to avoid heavy clay patches that would struggle to grow turf and/or planted vegetation.

Photo: Dense revegetation on North Maleny landslip designed over time to replace constructed drainage and other short term repairs.

The repaired landslip was densely revegetated (1 metre x 1 metre rather than the usual 2 metre x 2 metre spacings) in a trial to both rapidly establish soil anchoring root systems and increase transpiration fourfold (remembering that landslip stabilisation is 50% mechanical stability provided by root systems and 50% transpiration provided by foliage). A large and complex project, the Whitakers were able to access flood recovery funding to assist greatly with project costs.

The second major project for the year was in the notorious eastern Falls Creek escarpment on the Kittel property. LBCCG has been working for several years on minor projects to improve hillslope (and bank) instability however the 2022 rain bomb and resultant mass movement placed property infrastructure precariously at risk. Working in close partnership with the landholder we were able to trial several surface and sub-surface solutions, particularly the relatively new concrete matting product. Concrete mats are a durable, flexible, and simple to install product as opposed to other rigid solutions such as concrete or less reliable solutions such as rock or turf drains. Both rock, turf and ag pipe drains were also installed according to erosion risk. Installed drains, regardless of material used however are not a permanent solution and 1,520 seedlings were planted to eventually provide long term stabilisation.

The other major erosion project for the year was commenced on the western slopes of Bridge Creek. Water originating on the Crick property impacts not only this property but the large Cavanagh property downslope—contributing to extensive hillslope instability and considerable erosion during heavy rainfall. Wells or 'sumps' were installed across the hill face capturing spring water before it continues downslope saturating the soil profile below.

Photo: Kittel drainage works. Concrete mat, rock, turf and sub-surface drains safely divert overland flow away from residential infrastructure.





The captured water is then piped, in this case to a 22,500 litre tank, with troughs to provide livestock water. This uses an otherwise 'wasted' resource supplementing the existing off stream watering system. The sumps initially produce up to 14,000 litres of water per day although this reduces over time. An on-site weather station and flow meters will be installed to monitor volumes in relation to rainfall. The Crick hillslope was fenced in anticipation of revegetation in 2023/24.

Work continued on the Newsham property in Falls Creek; clearing shallow rooted lantana and other woody weeds and replaced with deep rooted native vegetation (2,500 trees). Over 10,000 trees have now been planted on this large site. The 2022 rain bomb resulted in minor damage; access road and loss of a small number of trees. Flood Recovery funding will address these concerns in 2023/24.

The remaining landslip projects for the year either completed smaller projects (400 trees, 210 metres fencing and 100 metres of drainage works on Barrett's), continued Araucaria paddock plantings to maintain grazing while addressing instability (500 trees on Colley's and 400 trees on Cork's) or commenced the first stage of a new project (840 metres fencing on Steven's).

Of course revegetation planted in previous years were also maintained on 17 sites.

Photo: Installing sumps on Crick property; intercepting and diverting sub-surface springs stabilising lower hillslope.

The program delivered:

- 1,540 metres fencing
- 7,335 stems planted
- 425 metres access tracks constructed, repaired or maintained
- 1.1 hectares weed management
- 34,734 trees, shrubs and groundcovers planted in previous program years maintained
- 4.3 hectares of drainage
- 105 metres diversion banks/gully protection
- 9,750 m³ of landslip repairs
- 21 landholders engaged

Dairy

The Dairy Program works with local producers to reduce livestock contact with natural waterways, address the unique intensive livestock movement and develop improved strategies in managing effluent.

The key aim of the program is to minimise pathogen delivery to catchment waterways and ultimately Lake Baroon. Pathogens are high risk as they are difficult to detect and treat and can have significant impacts on human health.

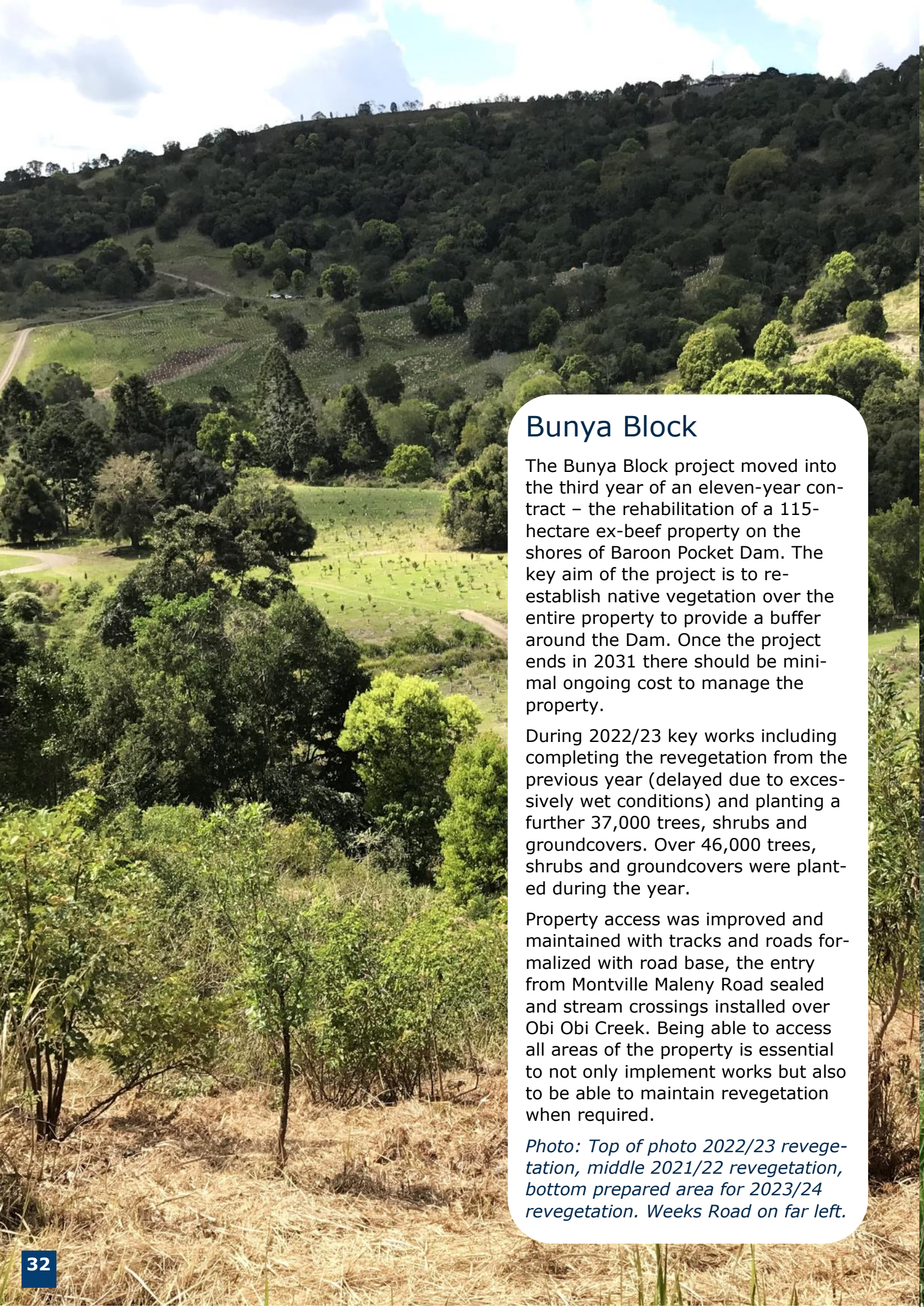
The dairy program finished in 2020 however the effluent management component has yet to be finalized. Two independent consultants delivered large and complex plans; neither achievable, practical or cost effective. A funding variation was approved by Seqwater in 2021 although LBCCG has continued to explore effluent management options. In 2022/23 the pond system on Cork Dairies was enlarged and improved to deal with dairy waste water in conjunction with other water use initiatives (pasture irrigation and use of recovered dairy solids to replace synthetic fertilisers). The dairy has also been moving towards minimising farm chemical use.

Work has continued on Ruddle Dairies. Reluctance to embrace water quality initiatives changed during the extended 2019/20 dry period highlighting the value of secure on-farm water storage and use. An extensive alternative water system was established and enabled the fencing of Arley Creek on the property. Initially the riparian zone was to be crash-grazed when required however the Ruddles quickly realized that improved farm management outweighed the minor value of the feed that the riparian zone produced. In 2022/23 the Arley Creek riparian zone was fully revegetated, not only providing a future shelter belt but also eliminating a constant source of weeds (native revegetation controls and replaces weeds).

Photo: Arley Creek revegetation on Ruddle Dairy.

The program delivered:

- one effluent management plan
- installed one effluent management system (effluent pond)
- 3,254 stems planted
- installed one off stream watering system (four troughs)
- purchased materials for shade tree installation




Bunya Block

The Bunya Block project moved into the third year of an eleven-year contract – the rehabilitation of a 115-hectare ex-beef property on the shores of Baroon Pocket Dam. The key aim of the project is to re-establish native vegetation over the entire property to provide a buffer around the Dam. Once the project ends in 2031 there should be minimal ongoing cost to manage the property.

During 2022/23 key works including completing the revegetation from the previous year (delayed due to excessively wet conditions) and planting a further 37,000 trees, shrubs and groundcovers. Over 46,000 trees, shrubs and groundcovers were planted during the year.

Property access was improved and maintained with tracks and roads formalized with road base, the entry from Montville Maleny Road sealed and stream crossings installed over Obi Obi Creek. Being able to access all areas of the property is essential to not only implement works but also to be able to maintain revegetation when required.

Photo: Top of photo 2022/23 revegetation, middle 2021/22 revegetation, bottom prepared area for 2023/24 revegetation. Weeks Road on far left.

A gravel stream crossing over a creek in a forested area. The stream is constructed from a wide bed of light-colored gravel and a central section of corrugated metal mesh. The surrounding area is lush with green vegetation, including tall grasses and various shrubs. In the background, a dirt path leads up a hillside covered in dense trees. Small white markers are visible along the edges of the stream bed.

Weeds continued to be cleared as revegetation moved into new areas. The vast majority of the property is now virtually weed-free (although an ever-present threat that requires diligent follow up) and natural regeneration of native vegetation is occurring on a broad scale. Devil's fig (*Solanum torvum*) continues to be the most problematic but all woody weeds require regular and intensive management until seed reserves are exhausted.

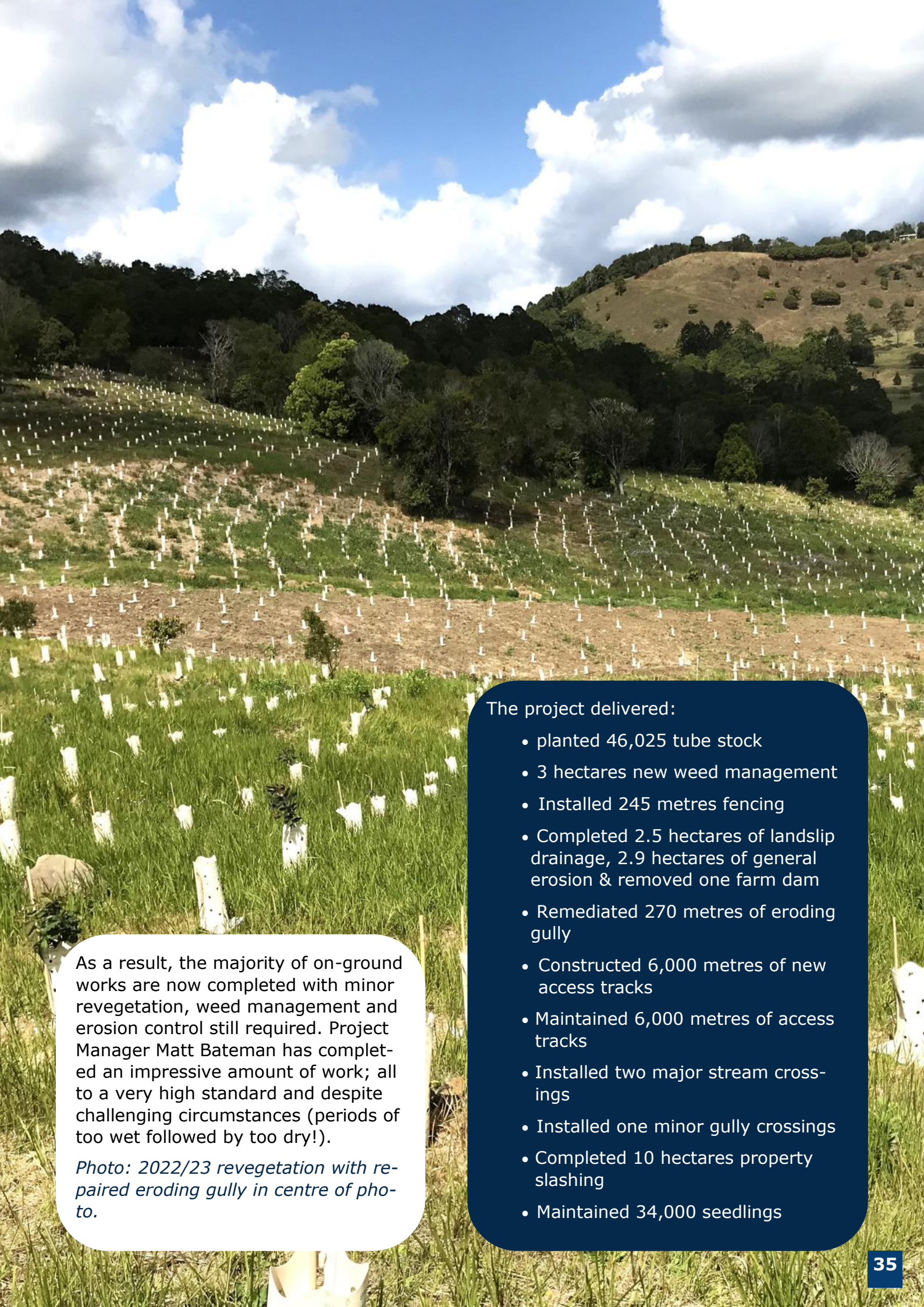
Livestock incursions from the neighbouring property required new boundary and road easement fencing to protect planted seedlings. Some of this fencing had been delayed due to the indecision around the Weeks Road improvements which is yet to be resolved.

Photo: Major stream crossing over Obi Obi Creek. The crossing was installed to maintain aquatic passage and minimise the impact on native vegetation.



Key erosion works commenced with old farm dam removal and drainage reducing waterlogging and stabilising hillslopes. Overland flows were diverted away from the eroding 270 metre gully which was bank battered and reprofiled to enable revegetation (including the planting of Vetiver [*Chrysopogon zizanioides*] in 2023/24 to stabilise the bed of the gully). Additionally, the adjacent landslip-prone area was drained and reprofiled to enable revegetation (where possible native Blady grass [*Imperata cylindrica*] is retained as it provides good stabilisation while discouraging weeds). Other erosion works included gully crossings and general repairs and modification.

Photo: Upstream waterway crossing on the Obi utilising concrete mats.



As a result, the majority of on-ground works are now completed with minor revegetation, weed management and erosion control still required. Project Manager Matt Bateman has completed an impressive amount of work; all to a very high standard and despite challenging circumstances (periods of too wet followed by too dry!).

Photo: 2022/23 revegetation with repaired eroding gully in centre of photo.

The project delivered:

- planted 46,025 tube stock
- 3 hectares new weed management
- Installed 245 metres fencing
- Completed 2.5 hectares of landslip drainage, 2.9 hectares of general erosion & removed one farm dam
- Remediated 270 metres of eroding gully
- Constructed 6,000 metres of new access tracks
- Maintained 6,000 metres of access tracks
- Installed two major stream crossings
- Installed one minor gully crossings
- Completed 10 hectares property slashing
- Maintained 34,000 seedlings

Eden Road

The five-year Eden Road project was completed in 2022/23. Similar to the Bunya Block, the property was purchased by Seqwater to be rehabilitated not only to provide a low maintenance vegetated buffer adjacent to Baroon Pocket Dam but also to complete stabilisation of the property's significant landslips.

Over the five years of the project over 8,500 trees were planted (2,000 more than initially planned), 1,000 metres of access tracks were improved and maintained, 850 metres of boundary fencing erected (to exclude neighbouring livestock), 3.5 hectares of weed management completed and numerous community events held (community tree plant, East Coast TAFE revegetation days).

Most pleasing is the high level of stabilisation achieved on the properties' landslips. Although landslips are very difficult to completely stabilise, there is very little sediment now leaving the property and reaching Baroon Pocket Dam.

Photo: Established revegetation on Eden Road landslip. Although minor slumping still occurs there is minimal soil loss from the site.

The project in 2022/23 delivered:

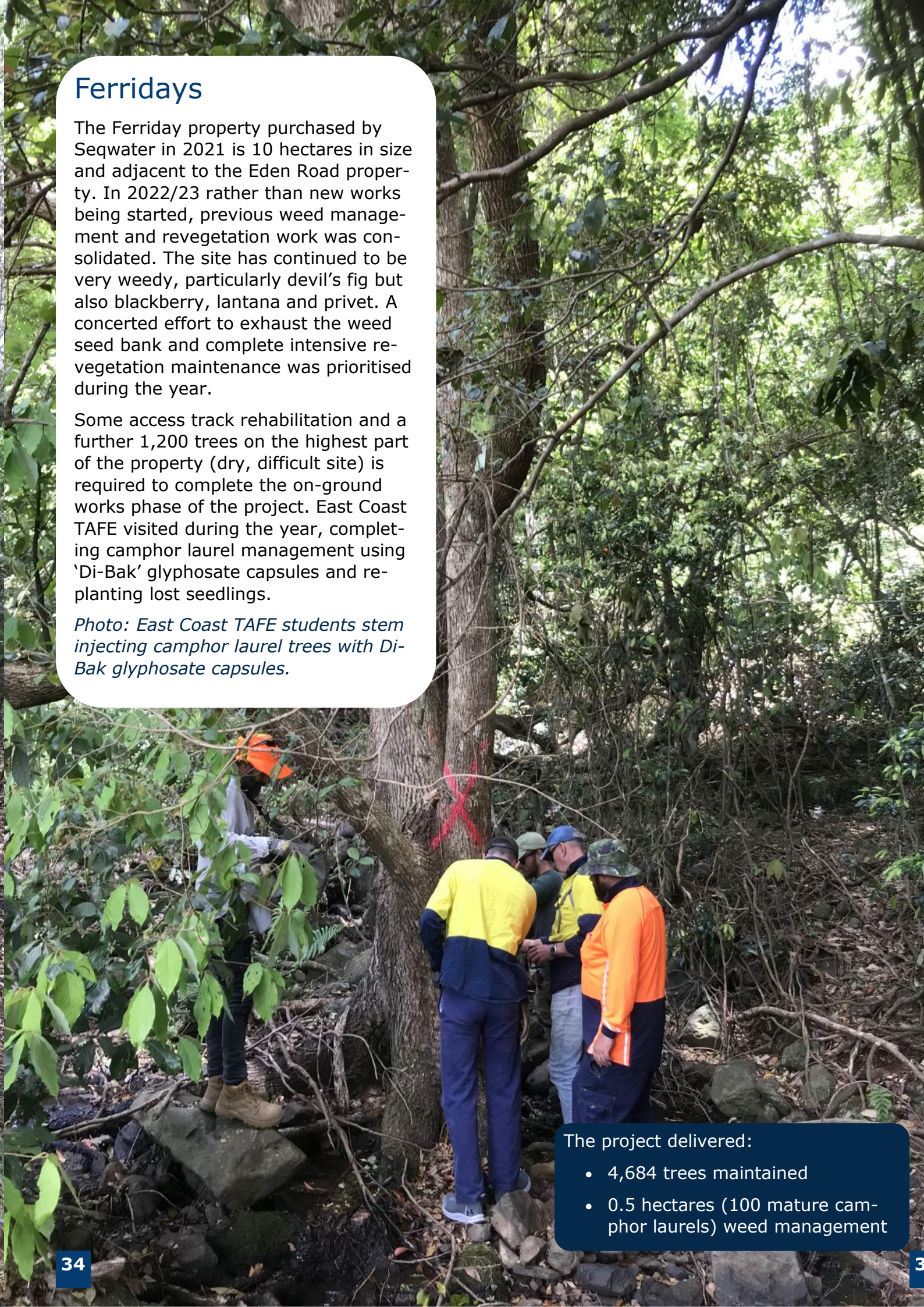
- Over 7,550 trees maintained
- 0.5 hectares of weed management completed
- 500 metres access tracks maintained

Ferridays

The Ferriday property purchased by Seqwater in 2021 is 10 hectares in size and adjacent to the Eden Road property. In 2022/23 rather than new works being started, previous weed management and revegetation work was consolidated. The site has continued to be very weedy, particularly devil's fig but also blackberry, lantana and privet. A concerted effort to exhaust the weed seed bank and complete intensive revegetation maintenance was prioritised during the year.

Some access track rehabilitation and a further 1,200 trees on the highest part of the property (dry, difficult site) is required to complete the on-ground works phase of the project. East Coast TAFE visited during the year, completing camphor laurel management using 'Di-Bak' glyphosate capsules and re-planting lost seedlings.

Photo: East Coast TAFE students stem injecting camphor laurel trees with Di-Bak glyphosate capsules.



The project delivered:

- 4,684 trees maintained
- 0.5 hectares (100 mature camphor laurels) weed management



Sunshine Coast Council Landholder Environment Grants

LBCCG provides support to landholders applying for Council LEG grants by assisting with grant writing (particularly budgets and mapping), providing supporting funding and other assistance where required (tree guards, weed mats etc). In many cases these small grants are incorporated into larger LBCCG projects and the outputs and outcomes are reported in those projects and programs.

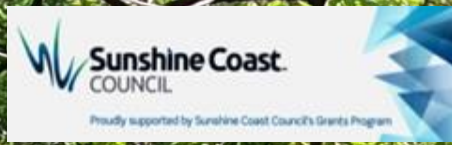
In 2022/23 LBCCG assisted landholders to apply for the 2022 LEG grants program and provided supporting funding to:

- Upper Falls Creek Revegetation Project Stage 3
- Upper Alcorn Creek Revegetation Project Stage 2
- Obi Obi Revegetation & Landslide Mitigation
- Arley Creek Rehabilitation
- Falls Creek Riparian Revegetation Corridor
- funding assistance to a further three small projects managing weeds, planting and fencing.

Photo: Landholders and contractors play a significant role in developing projects.

2022/23 Total outputs

Works	Program						TOTALS
	RCI Water Quality	RCI, HL&W, TMR Weeds	API	ESC	Dairy	Bunya, Eden, Ferriday SAM	
Fencing	-	-	2,803	1,540	-	245	4,588 metres
Revegetation	4,700	180	-	7,335	3,254	46,025	61,494 stems
Revegetation maintenance	19,078	-	-	34,734	-	47,184	100,996 stems
Off stream water – livestock troughs	13	-	-	-	4	-	17 troughs
Off stream water – solar pumps	2	-	-	-	-	-	2 pumps
Weed management	2	9.75	-	1.1	-	4	16.85 hectares
Landslip repair	-	-	-	9,750 m ³	-	-	9,750 m³
Erosion (ha)	0.3	-	-	-	-	-	0.3 hectares
Gully remediation	-	-	-	-	-	270	270 metres
Stream crossings	-	-	-	-	-	2	2 crossings
Gully crossings	-	-	-	-	-	1	1 crossing
Farm dams decommissioned	-	-	-	-	-	1	1 dam
Drainage (area)	-	-	-	-	-	5.4	5.4 hectares
Drainage (metres)	-	-	-	400	-	-	400 metres
Diversion banks	-	-	-	105	-	-	105 metres
Access tracks (new)	-	-	-	425	-	6,000	6,425 metres
Access tracks maintained	-	-	-	-	-	6,500	6,500 metres
Major road repairs	-	-	-	-	-	10	10 metres
Pasture slashing	-	-	-	-	-	10	10 hectares
Effluent plans	-	-	-	-	1	-	1 plan
Effluent systems	-	-	-	-	1	-	1 system
Facilities maintained	-	-	-	-	-	2	2 facilities
Workshops/Field Days/Events	-	-	-	-	-	-	4 events
Workshop attendees	-	-	125	-	-	-	125 attendees
Community engagement via extension	17	84	5	21	2	-	130 individuals



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