Our Natural Advantage

Cradle Coast NRM
CRADLE COAST AUTHORITY

Vegetation Management Proposal

TIA Dairy Research Facility On-Farm Natural Capital Accounting Demonstration

Introduction

This document is intended to provide an update on the status and proposed next steps of the On-farm Natural Capital Accounting Demonstration at the Tasmanian Institute of Agriculture Dairy Research Facility (TDRF) at Elliott.

This demonstration is being delivered by Cradle Coast NRM in partnership with the Tasmanian Institute of Agriculture (TIA) and supported by Fonterra and Dairy Tasmania.

Data collection for the Natural Capital Account

Project progress

Completed

- Project commenced February 2025
- MOU established (Cradle Coast NRM with TIA, Fonterra and Dairy Tasmania)
- Vegetation and soil data collected to establish a baseline Natural Capital Account through Accounting for Nature (AFN) framework
- AFN Technical report submitted and reviewed
- Identifying and planning on-farm natural capital improvement actions
- Delivery of communication resources and extension activities to share demonstration progress

Next Steps

- AFN technical report re-submission
- Drone mapping of vegetation
- Annual weed control of existing vegetation and proposed revegetation areas
- Fencing off areas of remnant vegetation, including protecting paddock trees
- Planting of at least two new revegetation areas to increase area of native vegetation and improve Giant Freshwater Crayfish habitat
- Establish new shelterbelts and agroforestry areas across the property
- Deliver communication resources and extension events for farmers and industry in collaboration with demonstration partners and supporters
- Re-assess the vegetation condition through with AFN framework autumn 2028 to determine if vegetation condition has improved
- Project ends June 2028

What is natural capital and a natural capital account?

'Natural Capital' or 'Natural Assets' are a re-branding of our natural resources – such as soil, water and living things – so they can be better recognised and valued in an economic sense.

There are emerging standards and frameworks for businesses and landowners to use to measure, assess and report on nature in a consistent and verifiable way, so they can manage their natural capital assets to make informed decisions on environmental risks and opportunities.

This on-farm demonstration is developing accounts through the certified Accounting for Nature methodologies, aligning with disclosures under the Taskforce on Nature-related Financial Disclosures and consistent with the United Nation's Standard for Environmental Economic Accounting.

Why are people interested in natural capital?

Unfortunately, our natural systems are in decline driven by immense pressure from human activities. Damaged ecosystems exacerbate climate change, undermine food security and put people and communities at risk. $44 trillion of economic value generation – over half the world's total GDP – is moderately or highly dependent on nature and its services and, as a result, exposed to risks from nature loss (World Economic Forum 2020).

To make good decisions that involve nature, we need to understand how nature supports our economy and wellbeing – which is where natural capital accounting fits in. The world is uniting in developing consistent systems of measuring and accounting for nature in an effort to value, preserve and enhance nature and better integrate into existing economic systems.

Natural capital risks and opportunities include:

- Mandatory sustainability reporting containing climate-related financial disclosures for large businesses
- Voluntary carbon and biodiversity reporting and nature-related risk disclosure by businesses to support access to markets
- Tasmanian farmers can already participate in, or prepare for, natural capital markets. This includes the Australian Carbon Credit Unit market and the new Nature Repair Market
- A verified natural capital account can provide transparency for businesses making sustainability claims, reducing reputational harm from false or inflated claims (greenwashing)

One of five dams across the TDRF

Demonstration Overview

The On-Farm Natural Capital Accounting Demonstration and associated extension activities aim to demonstrate the process of undertaking a natural capital account on a working dairy farm and explore the drivers which are increasing interest in and scrutiny around the management of on-farm natural capital.

What: An on-farm natural capital account developed utilising a rigorous scientific framework to measure and track changes in natural capital condition over time. This includes:

- a baseline assessment of soil and vegetation condition
- implementation of practical actions to improve natural capital
- on-going monitoring and re-evaluation to track outcomes
- Registration and certification through Accounting for Nature (AFN) framework

Where: TIA Dairy Research Facility, Elliott, Tasmania

Who: This demonstration is led by Cradle Coast NRM in partnership with the Tasmanian Institute of Agriculture (TIA) and supported by Fonterra and Dairy Tasmania.

When: Initial natural capital data was gathered in February 2025. On-farm natural capital improvement actions will be undertaken from early 2026 through to early 2028, when the condition of the farm natural capital will be again reassessed through the AFN framework. Communication and extension activities are being delivered throughout with the demonstration to be completed by June 2028.

Vegetation surrounds many dams on the property

Key objectives of the demonstration:

- Demystify Natural Capital Accounting and demonstrate how it can be used by farmers and industry in north-west Tasmania
- Demonstrate and implement targeted management practice to improve environmental health and align with Australian Dairy Sustainability Framework and supplier sustainability aspirations (Fonterra)
- Monitor changes over time to track improvements and resilience benefits for farms
- Provide a practical model for farmers to integrate improved natural capital management into their operations
- Identify market opportunities, such as biodiversity and carbon credits, to create new revenue streams for farmers
- Bring north-west farmers along, so farmers can decide how accounting for and better managing on-farm natural capital could support their farm

Alignment of proposed work with industry & stakeholder outcomes

The following table breaks down the proposed on-farm vegetation management actions undertaken as part of this demonstration into six categories (listed vertically, left), ranking each against six of stakeholder and industry outcomes (listed horizontally, top).

	Increased co-benefits of natural capital on farms	*Increase or maintain carbon capture & storage*	*Improved vegetation condition / Econd Score*	*Align with Australian Dairy Sustainability Framework*	*Align with Fonterra Farm Environment Plan*	*Align with TIA Strategic Plan 2026 to 2031*
Remnant vegetation	✓	✓	✓	✓	✓	✓
Biodiverse plantings	✓	✓	✓	✓	✓	✓
Shelterbelts	✓	✓	✓	✓	✓	✓
Paddock Trees	✓	✓	✓	✓	✓	✓
Agroforestry	✓	✓		✓	✓	✓
Weed Control	✓	✓	✓	✓	✓	✓

Communication and extension

Over the life of this demonstration we aim to dive into the practicality of how each of these on-farm management actions can support north-west Tasmanian farmers to align with supplier expectations, improve farm resilience and or profitability, or offer new market opportunity or diverse income streams. We will aim to work closely with our demonstration partners and supporters, and others in developing useful and engaging communications resources and deliver extension activities to share the demonstration outcomes.

Cradle Coast NRM Land Program Manager Hannah Sadler discusses the proposed works with TDRF Farm Manager Andrew Marshall.

Proposed next steps

Now that the baseline natural capital accounts have been established, the demonstration proposes to undertake on-ground activities to improve the status of the farm's vegetation assets.

The proposed on-ground natural capital improvement activities have been negotiated with TIA farm staff to ensure that each activity is practical and realistic for farmers or local contractors to undertake on north-west Tasmanian farms.

The proposed activities also aim to:

- Increase the co-benefits of natural capital on farms through farm resilience and or productivity benefits, including investigating pathways to potential diverse income streams through agroforestry, carbon and biodiversity credits
- Increase or maintain carbon capture and storage to reduce farm total emissions intensity
- Improve the condition and extent of native vegetation across the TDRF, aiming for an increase on our registered AFN vegetation baseline Econd score when the vegetation condition is reassessed in early 2028
- Align with Australian Dairy Sustainability Framework and Fonterra Farm Environment Plans for carbon, animal welfare, water quality and biodiversity outcomes
- Align with the TIA Strategic Plan 2026-2031
- Support the delivery of the Australian Government's Climate-Smart Agriculture Program outcomes

Planned priority actions to improve on-farm natural capital

The following actions are proposed to be implemented as a priority over the next 3 years to improve natural capital values across the TIA Dairy Research Facility:

- Weed control and fencing to maintain or improve condition of current quality intact native vegetation across the property, including mature wet Eucalypt forests and woodlands and mature revegetation areas
- Weed control and revegetation of new areas around two dams and smaller tributaries to improve water quality and habitat, especially for the iconic endemic threatened Giant Freshwater Crayfish (*Astacopsis gouldi*)
- Establish new shelterbelts utilising a mix of permanent biodiversity species and plantation species on exposed western edges of the TDRF to shelter stock and improve pasture growth of adjacent paddocks
- Improve protection and maintenance of large paddock trees, which provide quality native habitat and stock shade and shelter.
- We are also investigating opportunities to establish various agroforestry opportunities across the TDRF

Proposed on-farm vegetation management areas across the TIA Dairy Research Facility

Key:

Property Boundary

Activity types:

- Remnant Vegetation
- Biodiverse Plantings
- Shelterbelts
- Paddock Trees
- Agroforestry
- Weed Control

The TDRF is a 232-hectare dairy and livestock research facility at Elliott, north-west Tasmania. The facility operates a 50-bay rotary dairy and currently supplies milk to Fonterra.

To learn more about the research facility, visit www.utas.edu.au/tia/research/smart-farms

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