

Queensland Trust for Nature

Aroona Station - Nature Report

January 2026





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Introduction

The health of our society and business outcomes are intrinsically linked to the quality and extent of natural assets and the ecosystem services that nature provides. Attending to the conservation and restoration of natural ecosystems is a global imperative, as these actions not only mitigate risks but also unlock significant opportunities for innovation and investment.

Objectives for this disclosure

Showcasing the resilience of Queensland Trust for Nature's (QTFN) strategy and business model is crucial to build trust with potential investors and partners. QTFN's operations seek to create positive impact and add both commercial and environmental value through carefully navigating the trade-offs necessary for conservation and agricultural activities to co-exist. Adoption of the Taskforce on Nature-related Financial Disclosures (TNFD) to guide reporting enables QTFN to demonstrate how nature-related considerations are incorporated into strategic and resource allocation decisions at Aroona Station. The transparency of nature-related dependencies, impacts, risks and opportunities enables stakeholders to make informed decisions regarding their interactions with QTFN and Aroona Station. Incorporating nature-related considerations into decision-making reflects commitments to sustainable practices that combines cattle grazing with conservation management efforts. QTFN also see value in sharing this knowledge such that others may learn and implement their own initiatives to improve natural capital outcomes.

BDO Australia has been engaged by QTFN to prepare this Nature Report, drawing on information provided by QTFN and in the public domain.

Background

QTFN is an independent not-for-profit trust that is dedicated to restoring, enhancing, and protecting biodiversity across Queensland. QTFN focuses on sustainable land management, smart investment strategies, and powerful partnerships to achieve their goals. QTFN's strategy involves combining natural and financial capital to create genuine environmental and economic benefits. Their business model is designed to showcase that environmental preservation is not only vital but also profitable and sustainable. By integrating science and evidence into programs, QTFN aims to redefine how natural capital is valued and managed, ensuring long-term positive outcomes for both nature and investors. Key aims are to:

- restore and protect ecologically significant habitats;
- lead and facilitate research programs; and
- collaborate on projects with proven benefits for the environment and our stakeholders.

QTFN focuses on ecologically significant spaces, species and wildlife corridors, working on private, public, QTFN-owned and Traditional Owners' land across Queensland's diverse bioregion. Aroona Station is a part of QTFN's portfolio of properties. It is a 2,000-hectare property located in the significant wildlife corridor of Little Liverpool Range on Yugara Country, approximately 55km southwest of Ipswich. For over 50 years, this working cattle property has maintained large areas of diverse native vegetation, supporting varied and viable populations of conservation-significant wildlife. Aroona Station showcases how nature conservation, best practice land management and sustainable beef production can co-exist in harmony.

Approach to reporting

QTFN have adopted the TNFD as the framework to guide their nature-related disclosures, as it provides a practical and workable structure. The TNFD is also gaining traction as a globally recognised framework and it is anticipated that it will inform international disclosure standards, as the Taskforce on Climate-related Financial Disclosure (TCFD) has done. In this manner, QTFN are ‘future-proofing’ current data, analytical and reporting efforts.

The TNFD sets out disclosure recommendations around four core pillars:

- Governance - disclose the organisation’s governance of nature-related dependencies, impacts, risks and opportunities.
- Strategy - disclose the effects of nature-related dependencies, impacts, risks and opportunities on the organisation’s business model, strategy and financial planning where such information is material.
- Risk and impact management - describe the processes used by the organisation to identify, assess, prioritise and monitor nature-related dependencies, impacts, risks and opportunities
- Metrics & targets - disclose the metrics and targets used to assess and manage material nature-related dependencies, impacts, risks and opportunities

The TNFD has developed the ‘LEAP’ approach - Locate, Evaluate, Assess and Prepare -to assess potential nature-related dependencies and impacts, risk and opportunities from an organisation’s activities (per Figure 1 below). QTFN have utilised the ‘LEAP’ approach as a practical framework to assist in the identification of the nature-related risks, opportunities, dependencies and impacts. The LEAP approach is also fundamental to informing the recommended disclosures under the TNFD.

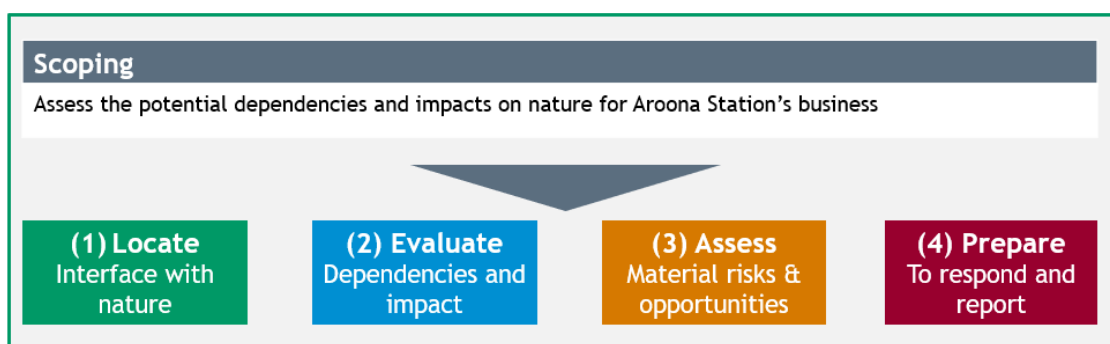


Figure 1 LEAP framework approach

Limitations on reporting

QTFN acknowledges that this inaugural report is still in its formative stages. However, by conducting the following assessment, key areas for maturity have been identified, emphasising the importance of continuous improvement. It is intended that the scope of the report will be expanded in future years. For example, while scenario analysis, as recommended by the TNFD, is not included in this assessment, QTFN plans to incorporate it in future reports to better understand the impacts of nature-related risks and opportunities.

Likewise, plans to address risks and opportunities, and the quantification of trade-offs between agricultural and environmental outcomes will be addressed in subsequent iterations of this report.

Materiality

The definition of materiality has been established with reference to the International Sustainability Standards Board (ISSB) sustainability reporting standards. In determining what information is material for disclosure, QTFN adhere to the double materiality approach, which considers both the financial significance to its operations and the broader impact on the environment and society. The materiality of drivers, impacts and dependencies has been assessed.

In addition, QTFN has employees who are subject matter experts over the land and operations at Aroona Station. These experts have informed the materiality determination process by providing their knowledge and insights on the ecological and operational aspects, ensuring that the assessments are both appropriate and accurate.

Time horizons

QTFN considers three-time horizons; short-, medium- and long-term when planning, implementing and reporting on nature-related issues (refer to Table 1). The time horizons help inform strategic business planning, project management and financial planning.

Table 1 - Time Horizons

Time Horizons	Timeframe	Rationale
Short-term	1 year	The initial 12-months establishes the current baseline of operations, including the current state of metrics.
Medium-term	5 years	The next five years considers the implementation of the targeted changes from the baseline.
Long-term	8+ years	The following three years after the five-year plan considers the measured impact of the changes from the baseline in year one.

Stakeholder engagement

Collaboration, understanding, and mutual benefits are at the core of everything QTFN do, making stakeholder engagement essential to their success. QTFN maintains ongoing, open communication and dialogue with its stakeholders, recognising their capacity—particularly Traditional Owners, local communities, and landholders.

QTFN acknowledges that Traditional Owners enhance future capabilities by sharing their profound ecological insights and invaluable knowledge, passed down through generations. Their contributions facilitate the adoption of traditional land management methods, enriching QTFN’s practices and fostering sustainability. As such, QTFN have previously engaged Wirrinayah Conservation Services to consult on fire management activities. In addition, QTFN looks to actively engage with First Nations groups through its procurement practices.

Aroona Station is part of the Little Liverpool Range Initiative (LLRI), fostering strong relationships with neighbouring properties to ensure community awareness and cooperation. Additionally, Aroona Station collaborates closely with the Turner Family Foundation at the Spicers retreat property, a not-for-profit

organisation dedicated to conservation and cattle enterprise. Aroona Station borders three council areas (Scenic Rim, Lockyer Valley, Ipswich); however, its primary council stakeholder is Ipswich City Council. Aroona Station also engages in the Land for Wildlife Program through Ipswich City Council, which encourages landholders to manage wildlife habitats on their properties.

Whilst significant strides have been made, QTFN acknowledge that further efforts are needed to engage stakeholders more effectively concerning nature-related risks, opportunities, dependencies, and impacts.



Figure 2 Aroona Station's key stakeholders

Integration of other sustainability-related disclosures

QTFN recognise the importance of integrating nature-related disclosures with other business and sustainability-related information to provide a holistic view of its operations. While integrated reporting has not yet been implemented, QTFN are committed to moving towards this approach in the future.

Scope

The scope for this report for Aroona Station is focused on direct operational activities. As such, assets and activities owned and controlled by QTFN are included, ensuring that direct value chain activities are comprehensively evaluated.

Exclusions to scope include:

- Direct business activities with potential immaterial/ inconsequential impact, including treatment of cattle such as veterinary visits and the management of animal waste; and the processing of cattle (as it occurs offsite);

- Business activities related to climate change and emissions (as they are separately addressed within QTFN's climate-related disclosures); and
- Indirect business activities, including upstream and downstream operations.

QTFN plans to enhance its disclosure capacity over time to analyse its full value chain in line with TNFD recommendations, aiming for a comprehensive understanding of environmental interfaces. In future reports, QTFN will improve its methodology for evaluating nature-related dependencies, impacts, risks, and opportunities, gradually expanding to include the entire value chain, including both upstream and downstream activities.

Location of property and operations within the property

In assessing the interfaces and relationships between natural values and Aroona Station's operations, QTFN has adopted a location-based approach, focusing specifically within the boundaries of Aroona Station (refer to Figure 3 and Figure 4). This localised approach allows QTFN to identify and focus on the unique environmental challenges and opportunities specific to Aroona Station. While it is acknowledged that ecosystem services, environmental assets and drivers of nature change do not abide by a wire-strung fence line, for practical reasons QTFN's first nature-related disclosure, is focused within these boundaries.

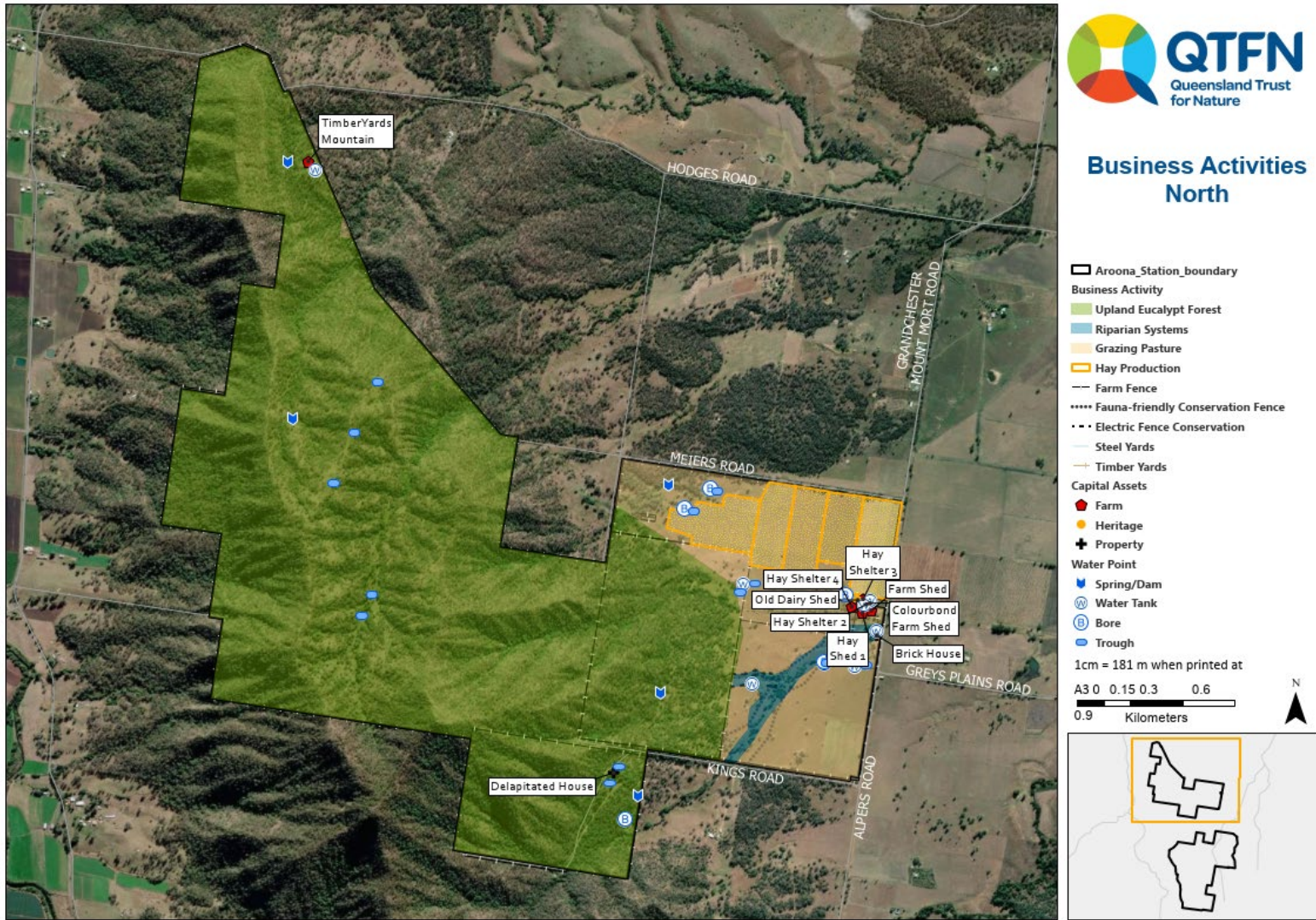


Figure 3 Aroona Station property boundaries and segregation of operations (North)

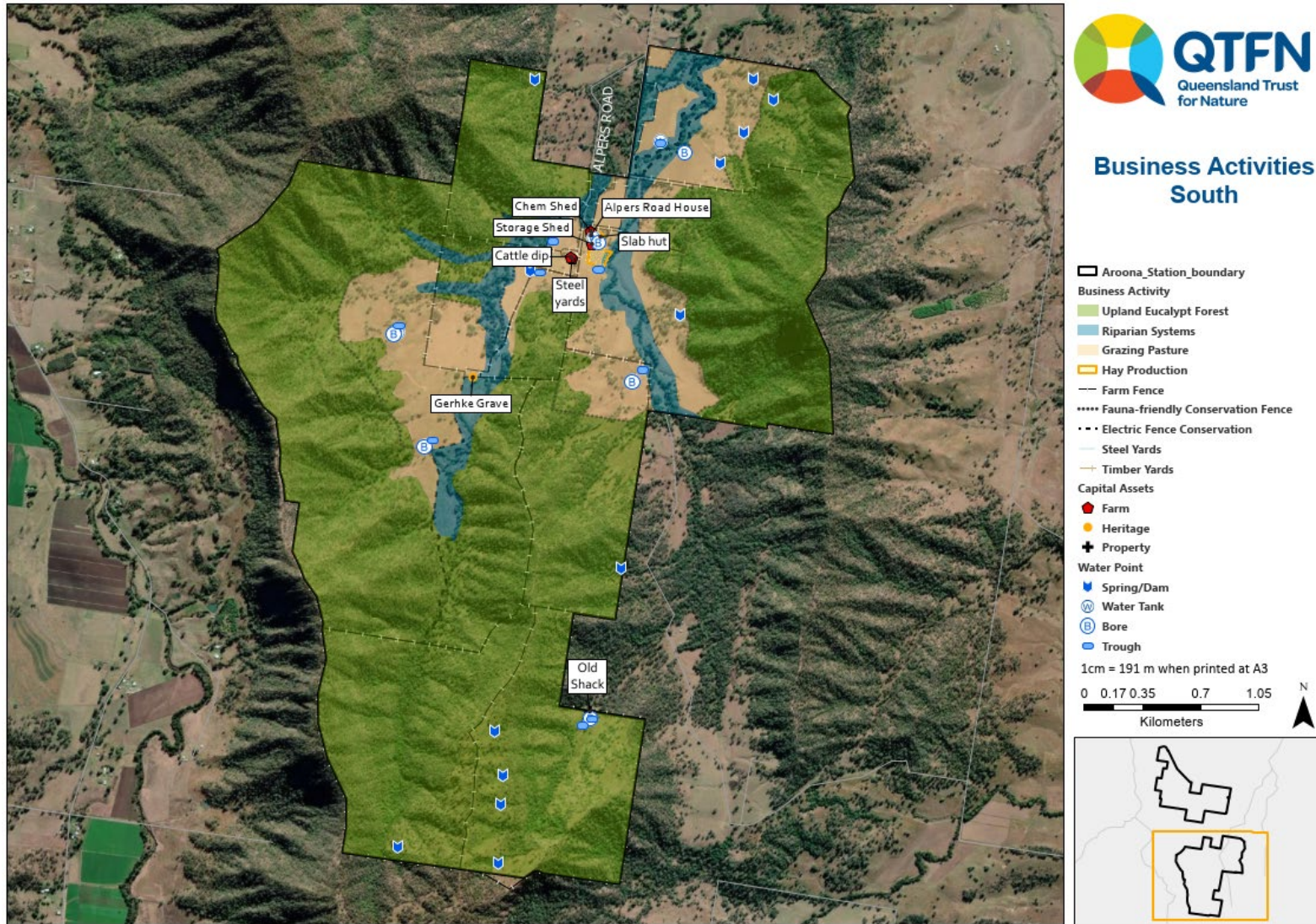


Figure 4 Aroona Station property boundaries and segregation of operations (South)

An overview of QTFN’s Aroona Station direct business activities and its associated activities is provided below (refer to Table 2). Key direct business activities are consistently carried out across both the North and South sections of the Aroona Station property.

Table 2 - Aroona Station’s direct business activities

Key direct business activities	Associated activities
Cattle grazing & sustainable beef production	<ul style="list-style-type: none"> • Land management • Livestock water and cleaning • Livestock feeding including lick blocks (feed supplements) • Fertiliser use (applied to paddock only) • Animal waste • Water use
Fodder production	<ul style="list-style-type: none"> • Land management • Herbicide and pesticide use • Water use
Nature conservation and habitat restoration	<ul style="list-style-type: none"> • Land management • Herbicide and pesticide use
Research and educational programs	<p><i>The following business activity is not considered within QTFN’s assessment of nature-related impacts, dependencies, risks and opportunities.</i></p>

Fencing at the station delineates the different operational areas, and is used to control movement of cattle and their grazing intensity, protect remnant vegetation, control weed and maintain conservation efforts (refer to Figure 3 and Figure 4). The following fence types are found on Aroona Station:

- **Farm fence:** pre-existing fences that were on site at acquisition, which are typically a 3 to 4 strand wire fence with wooden posts.
- **Fauna-friendly fence (conservation):** used for ongoing permanent fencing on the property and constructed post 2020. They are a four strand, top and bottom plain wire, two middle barb wire, with wooden and steel posts.
- **Electric fence (conservation):** they are a four-wire electrical strand. Designed to surround revegetation projects. It is noted that these are not the preferred fence type and may be replaced in the future.
- **Steel yards:** specifically designed to contain cattle within a small area. One set occur on Aroona South.
- **Timber yards:** specifically designed to contain cattle within a small area. Two sets occur on Aroona North.

Cattle grazing & sustainable beef production

In 2024, Aroona Station managed 280 head of cattle, with the property currently understocked at 5.91 hectares/Livestock Unit (LSU). It is common practice to reduce stocking rates in autumn based on available rainfall, however, it will be beneficial to establish a future stocking potential for the area relative to the available feed. Grazing business activities include the maintenance of woody vegetation in areas allocated for grazing. No additional land clearing is currently planned at Aroona Station. The property has a high level of plant cover with increased woody vegetation on natural slopes to watercourses. Grazing is predominantly on the lowland flats with light grazing pressure to maintain grass cover.

The station does not undertake irrigation practices; water is primarily used for domestic, and livestock use. As such under the current water license agreement, water use by homestead or stock does not require metering, therefore, water usage data is not collected at present. Aroona Station utilises a combination of seasonal dams, creeks, troughs fed by header tanks and bores powered by solar, windmill, and mains electricity, to support homestead and stock water usage. Off stream water sources are used, but not exclusively, across the property. Where off-stream water sources have been introduced, fenced riparian corridors have been allowed to naturally regenerate, with additional planting to enhance water quality, retention, and provide habitat. Stock have access to water through troughs and natural springs. A water use review is being planned due to the ephemeral nature of onsite streams, which may pose challenges during drought periods.

Although Aroona Station currently does not currently track surface and groundwater usage, improved metering and data collection is an aspiration for the future. Additionally, stock movement can be precisely tracked using Ceres Tag.

Fodder production

Aroona Station currently produces approximately 206 tons of pasture hay annually, stored onsite as round bales. Fertilizing, cutting, raking, and baling are handled by contractors. Both synthetic fertilizer and compost are applied to all hay production paddocks using a mechanical spreader towed by a tractor, making it challenging to determine an exact tons per hectare rate.

Fertiliser amount is monitored by financial records. Each growing season, Aroona Station apply four tons of 'green top K' synthetic fertilizer, which contains 33% nitrogen (N), 11% potassium (K), and 2.9% sulphur (S). This is applied at a rate of approximately 60 kg per hectare. This is on the lower end of the recommended range (50-200 kg per hectare) but meets the needs of Aroona Station. A homemade compost blend is also applied on specific paddocks. This blend includes waste hay, cattle dung, chicken manure, and sawdust. While a detailed analysis of the compost has not been undertaken, it is being considered.

Nature conservation and habitat restoration

Aroona Station encompasses nine distinct regional ecosystems, with six ecosystems classified as having a conservation status 'of concern'. The property has various flora and fauna species with differing conservation statuses (refer to Table 3).

Table 3 - Species with conservation status

Conservation Status	Species
Critically Endangered (CR)	<ul style="list-style-type: none"> Fassifern blind snake (<i>Anilius insperatus</i>)
Endangered (EN)	<ul style="list-style-type: none"> Koala (<i>Phascolarctos cinereus</i>)
Vulnerable (VU)	<ul style="list-style-type: none"> Grey-headed flying-fox (<i>Pteropus poliocephalus</i>) Glossy black cockatoo (<i>Calyptorhynchus lathami</i>)
Near Threatened (NT)	<ul style="list-style-type: none"> Balieu's cypress (<i>Callitris baileyi</i>) Brush-tailed rock-wallaby (<i>Petrogale penicillate</i>)
Least Concern (LC)	<ul style="list-style-type: none"> Powerful Owl (<i>Ninox strenua</i>) Blue gum (<i>Eucalyptus tereticornis</i>)

At Aroona Station, 70% of the property is covered in remnant vegetation and reforestation work is restoring cleared areas to reconnect pockets of existing forest. More than 30 native species have been planted at Aroona, including eucalypts and several rainforest species. The property's large areas of diverse native vegetation allow natural ecological processes to occur at the scale necessary to support varied and viable populations of conservation-significant wildlife.

Weed and fuel load suppression activities are addressed in a comprehensive fire management plan, initially implemented in 2017 and reviewed every five years. Fuel loads are monitored using the methodology for the 'Overall Fuel Hazard Assessment Guide' for 'Fire and Adaptive Management'. This method allows for a rapid visual assessment of fuel arrangement and the effects of the fuel on controlling a bushfire.

Weed and fuel load suppression at Aroona Station is managed through a combination of herd rotation and seasonal planned burn activities. These efforts are part of broader conservation activities aimed at reducing wildfire risks and maintaining ecological balance. On average, Aroona Station conducts controlled burns on 60 hectares annually, with plans to increase this area. However, the outcomes and opportunities for burning have been variable due to the high rainfall in recent years.

Currently, an external contractor is testing weed control measures using drones. The pilot aims to evaluate the suitability of herbicide application via drones to enhance productivity and improve access to steeper areas on site. This approach involves the targeted delivery of glyphosate with small droplet sizes, specifically targeting large stands of lantana to prevent overspray and spray drift. It is hoped that this method ensures the safe, efficient, and sensitive application of herbicides, advancing progress towards on-ground objectives.

In 2024, 166 hectares were treated for weed management. Additionally, the farm manager carries out some weed management work in non-offset areas. These activities not only suppress weeds and fuel loads but also promote healthier ecosystems by encouraging the growth of native plants and reducing invasive species.

Natural systems - Realms, biomes, assets and services

Given the nature of Aroona Station’s operations and key business activities, including cattle grazing, fodder production, and nature conservation and habitat restoration the property’s operations will typically interface with the “land” and “freshwater” realms of nature (refer to Table 4).

Table 4 - Aroona Station’s biomes, assets, impact drivers and ecosystem services

Realm	Biome	Assets	Ecosystem services
Land	Primary vegetation: <ul style="list-style-type: none"> Tropical and sub-tropical forests Temperate and boreal forests and woodlands Shrublands and shrubby woodlands 	<ul style="list-style-type: none"> Cultivated biological resources Land Terrestrial ecosystems 	<ul style="list-style-type: none"> Biomass provisioning Soil and sediment retention Soil quality regulation Biological control Storm mitigation
Freshwater	<ul style="list-style-type: none"> Rivers and streams Lakes Subterranean freshwaters 	<ul style="list-style-type: none"> Subterranean freshwater ecosystems Freshwater ecosystems Water resources 	<ul style="list-style-type: none"> Water supply Water purification Water flow regulation Rainfall pattern regulation

Priority locations

QTFN have identified the locations of their assets and activities within their direct operations, that meet the criteria for priority locations. As per the TNFD recommendation’s sensitive locations have been defined as:

- Areas important for biodiversity; and/or
- Areas of high ecosystem integrity; and/or
- Areas of rapid decline in ecosystem integrity; and/or
- Areas of high physical water risks; and/or
- Areas of importance for ecosystem service provision, including benefits to Indigenous Peoples, Local Communities and stakeholders

The Aroona Station property is located in a region of high ecological sensitivity, which includes designated environmental conservation areas that serve as habitats for key species including the Fassifern blind snake, koala, grey-headed flying-fox, glossy black Cockatoos, bailey’s cypress, and brush-tailed rock wallaby.

In terms of ecosystem composition, structure and function, 70% of the Aroona Station property is covered in remnant vegetation, with the remainder, excluding fodder production area, pastures and cultivated lands, representing areas of high value regrowth. High value regrowth areas are generally more vulnerable to clearing and degradation compared to remnant due to less awareness and/or knowledge of its importance.

Projections indicate an increased potential for drought and higher fire risk at the property. According to the World Resources Institute (WRI) Water Risk Atlas, Aroona Station exists in an area experiencing high water stress (40-80%). As such, the Aroona Station property has been identified as an area with potential high physical water risks.

As such, the entirety of the Aroona Station property has been identified as a highly sensitive location. As a result, no division of the property into separate zones of sensitivity has been undertaken; instead, Aroona Station is considered in its entirety when assessing nature-related dependencies, impacts, risks and opportunities.

Interfaces with nature

To gain a better understanding of the potential material impacts and dependencies on nature for Aroona Station's direct operations, the ENCORE tool was utilised. The ENCORE tool allows organisations to assess and understand their dependencies and impacts on nature given the nature of their business. Each dependency and impact were assessed and assigned a materiality rating on a scale of 'Very High', 'High', 'Medium', 'Low', and 'Very Low'. Refer to Appendix 1 for the materiality ratings of dependencies and impact drivers across all themes based on ENCORE for Aroona Station's business operations.

Dependencies and impacts rated as 'Very High' and 'High' were considered material. These ratings indicate that the ecosystem services in question are critical to the activities at Aroona Station or are more likely to be vulnerable to disturbance by Aroona Stations operations. Consequently, they are given greater attention in the analysis. Appendix 2 and Appendix 3 detail the dependencies and impacts for themes rated as High and Very high for Aroona Station. Metrics for dependencies and impacts are derived from the TNFD food and agriculture sector guidance.

Dependencies

Aroona Station's assets and activities rely heavily on the availability of suitable water, the quality of soil and extent of vegetation.

- Water for livestock is sourced from tanks and seasonal dams, which are filled through overland flow. The cultivation of fodder is entirely dependent on rainfall, as is the Aroona Station conservation area.
- Soil quality and profile are crucial for the growth of fodder, both in grazing and cultivated lands, as well as in the conservation zone. Soil structure also plays a significant role in storm mitigation and sediment retention efforts.
- Vegetation provides essential ecosystem services. It offers shelter belts for animals and serves as a food source through native and introduced pastures for cattle. Vegetation also plays a vital role in soil and sediment retention, regulating velocity of overland water flows, soil quality, and purifying water.

Impact

The primary impact drivers associated with Aroona Station's operations are related to water and land use. Allowing cattle to graze in excluded areas will affect soil structure and, if not managed properly, may lead to soil erosion. There is also the potential for soil and nutrient loads to become mobilised during heavy rainfall events. Additionally, water abstraction may impact downstream areas, affecting groundwater recharge and natural catchment inflows. QTFN have performed trials to reduce impact of overland flow such as increasing woody vegetation on fence lines and directing overland flows to stagnant water to reduce the velocity of flows. Refer to Appendix 3 for an overview of impacts associated with Aroona Stations operations.

Nature-related risks and opportunities

QTFN pursue innovative approaches that mitigate risks and/or seize opportunities to enhance the value of natural capital. By identifying nature-related opportunities, QTFN can improve outcomes for the natural environment. Addressing nature-related risks ensures the resilience of both QTFN's operations and the ecosystems they depend on. Nature-based risks and opportunities will be integrated into QTFN's strategic planning to foster sustainability and environmental stewardship.

QTFN have identified material nature-related risks and opportunities that could impact its business model, value chain, strategy, and financial position (refer to Table 5 and Table 6, respectively). Appendix 4 provides an overview of Aroona Station’s material nature-related risks and opportunities.

Table 5 - Aroona Station's nature-related risks

Risk Type	Risk Description
Physical (chronic)	Deterioration of soil condition and quality due to poor land management practices
Physical (acute)	Natural pollinators fail to adapt to changing climate
Physical (acute)	Fertiliser/chemical application pollutes and/or contaminates sensitive water systems
Physical (acute)	Existing farming infrastructure are not adequately designed or located to withstand extreme weather events such as flooding or fire.
Physical (acute)	Riparian damage leading to sediment mobilisation in sensitive waterways
Physical (acute)	Access to water of suitable quality and quantity necessary for Aroona Station's business activities is constrained.
Physical (acute)	Water licensing condition constrain access to stock and domestic water usage
Physical (acute)	Conservation efforts (i.e., conservation of certain species and habitats) inadvertently help invasive species prosper
Physical (acute)	Farmland management practices result in the disruption to conservation activities
Transitional (reputation)	Poor public perception of QTFN's Aroona Station flora and fauna management and conservation efforts from farm lobbying and environmental advocacy groups.

Table 6 - Aroona Station's nature-related opportunities

Opportunity Type	Opportunity Description
Markets	Introduction of policies and regulations that push for more stringent nature positive targets and outcomes
Resilience	Revenue growth from nature repair projects at Aroona Station
Resilience	Investment in the restoration of an area of degradation with purpose to enhance infrastructure resilience and link habitat corridors
Products and services	Increase in market valuation due to regenerative farming practices and increase in percentage of natural vegetations enhancing ecosystem services and environmental assets (e.g. soil structure increases resilience to weather-related shocks)
Products and services	Investment in organic beef farming practices resulting in a product price premium
Products and services	Introduction of improved fertiliser and weed management techniques/practices resulting in reduced input costs

Resilience

Aroona Station's interfaces with natural systems are simultaneously simple and complex. Simple insofar as agricultural and conservation outcomes rely in the most basic sense on quality soil, vegetation and water provided by terrestrial and freshwater ecosystems. Complex because of the interdependencies of natural systems in providing these inputs, and the potential for Aroona Station's operations to set off a chain of events that may impact the balance in these natural systems, for good or bad. This sensitivity is further exacerbated by the symbiotic relationship between agriculture and conservation activities at Aroona.

The resilience of Aroona Station's strategy and business model has been considered in the context of changes in these natural systems upon which their operations depend, and the associated risks and opportunities. Our assessment of resilience has also factored in the inherent uncertainties around performance and behaviours of natural systems to external forces, including Aroona Station's activities. Predictions of medium- and longer-term effects have greater uncertainty than short-term outcomes.

Soil condition

A key aspect of land base resilience over the time horizons is soil health and function. As noted previously, land management practices that lead to a deterioration in soil condition and quality may undermine the productivity of grazing and conservation operations. Soil condition and quality is a key element of the Aroona Station Conservation Plan. Using evidence-based approaches to determine cattle stocking rates, trialling organic fertilisers, and adopting water management practices to reduce flow velocity and therefore soil mobilisation are several ways Aroona Station is working to mitigate risks to soil health and function.

Furthermore, as new technology is being developed around measuring soil health standards, its application to provide a better understanding of the soil biome is critical in supporting this key asset for Aroona Station's agricultural and conservation systems.

Co-existence

Effectively integrating agricultural and conservation operations is also critical to Aroona Station's short- and longer-term resilience. Without adequate planning for co-existence, offset areas could constrain agricultural production resulting in loss of income. Equally, poorly planned farm management practices could result in disruption to conservation activities with loss of biodiversity and/or ecosystem services the outcome. QTFN have a detailed Aroona Station Conservation Plan that was reviewed by the Science and Education Committee. To ensure a successful delivery of the 'Aroona Station - Balancing Beef and Biodiversity Project' a strategic planning process has been conducted using the Open Standards for the Practice of Conservation (Conservation Standards). This document outlines the first step, Assess, in developing a management plan that integrates a productive landscape and environmental conservation, ensuring the enhancement of the natural environment and protection of ecosystem services.

Integrating grazing as a management tool for offset areas is another important planning development. Cattle become an important tool in weed suppression and fuel load reduction to mitigate risks of catastrophic wildfire. In areas of new plantings in offset, the introduction of cattle will occur once vegetation is sufficiently established. Rotational grazing through the offset areas reduces the need for contract weed and fuel load management, and augments the area of grazing land available, potentially increasing the herd size.

Managing future climate risks

The Queensland Government climate projections predict significant climate variability for Southeast Queensland, with expected fluctuations in rainfall and temperature over the coming decades. The prediction considers higher intensity rainfall in summer with higher number of extreme heat days, reduced winter rainfall and potential extended drought periods.

While our understanding of the potential impact of these changing climatic conditions on vegetation composition and water availability is maturing, more detailed analysis is required to ‘future-proof’ Aroona Station’s strategy from climate change. Nature repair areas constitute a significant investment opportunity for Aroona Station and managing risks during the vulnerable stages of planting needs to be considered as a high priority. Similarly, income from cattle is essential for the financial sustainability of Aroona Station.

As such, a review of water use requirements at Aroona Station would be timely. A deeper understanding of the impacts of climate change on vegetation composition and soil quality and structure is also essential. Findings will serve to inform infrastructure investment decisions that not only safeguard livestock but also protect newly established plantings for offsets.

QTFN has developed its Conservation Plan for Aroona Station, which outlines the key environmental and social values of the property (referred to as conservation assets and human-well-being assets), a situation analysis, key threatening processes and strategies designed to reduce threats and enhance the value of natural assets. Guided by the Conservation Plan, QTFN’s dedicated conservation team is applying a multi-faceted approach to protecting and enhancing Aroona’s biodiversity, including research and long-term monitoring to enhance management planning. Coupled with applied sustainable agricultural practices, the strategy at Aroona Station is demonstrating the economic and environmental rewards of integrating biodiversity and productive land management.

Preliminary analysis of dependencies and impacts, risks and opportunities suggest that QTFN’s operations at Aroona Station are resilient to the interfaces with nature. Dependencies are understood and activities modified accordingly, and potential impacts are being addressed through strategic and operational planning. The control framework to identify, measure, manage and monitor risks and opportunities is also being increasingly integrated with enterprise frameworks to substantially reduce residual risks and capture opportunities.

Metrics and Targets

QTFN is dedicated to incorporating nature considerations into every aspect of its operations and decision-making processes, supported by clear metrics and targets. QTFN understands that these metrics are essential for measuring, managing and monitoring the identified nature-related risks and opportunities. While data is available, the collection of a full year of data on all reporting metrics is yet to occur. Moving forward, QTFN plans to gather data for the full reporting year in alignment with TNFD ‘Global’ and core ‘Food and Agriculture’ sector disclosure metrics, as well as Nature Positive’s State of Nature Metrics.

Management Approach

Governance

QTFN’s approach to managing and reporting nature-related risks and opportunities, as well as impacts and dependencies, is underpinned by its commitment to protecting, enhancing, and restoring properties and land across Queensland. They ensure that sustainability is increasingly integrated into decision-making and focus on transparent governance and engaging stakeholders to support long-term value creation.

Board and Committee Oversight

The Board of Directors is dedicated to the stewardship of nature-related factors that are crucial to QTFN’s mission of protecting, enhancing, and restoring properties across Queensland. This includes staying informed

about emerging trends, best practices, and regulatory developments in the field of environmental conservation and nature-related financial disclosures. The Board is committed to continuous improvement in managing nature-related dependencies, impacts, risks, and opportunities.

To ensure effective oversight, the following committees are tasked with:

- **Audit and Risk Committee:** identifying nature-related risks and opportunities, including the development of mitigation strategies and investment needs as relevant to Aroona Station.
- **Science and Education Committee:** overseeing the development of the Conservation Plan and providing recommendations for investment.
- **Investment and Property Committee:** overseeing and regular review of the identified property investment and any nature-related risks and opportunities. The IPC is also responsible for integrating nature-related considerations into strategic and operational decision-making processes.

The Committees convene six times a year, while the Board meets bi-monthly. The CEO's report provides updates on all properties, including Aroona Station. Given the nature of the organisation, all Board decisions incorporate input from the staff ecologist as needed. Valuing nature is a core priority, encompassing major strategies, risk considerations, and budget expenditures. This commitment is supported by the overarching Conservation Plan - Aroona Station - Balancing Beef and Biodiversity Conservation Plan.

Management Responsibility

At Aroona Station, roles and responsibilities for assessing and managing nature-related dependencies, impacts, risks, and opportunities are clearly defined. Onsite staff and contractors report to the farm supervisor, who then reports to the General Manager and Chief Executive Officer. Contractors provide production advice and handle specific tasks. The staff ecologist plays a crucial role in significant farm management decisions that may affect environmental conditions, such as weed control, fire load suppression, or the establishment of infrastructure like tracks and fencing.

In areas such as offset locations, the ecologist's recommendations take precedence to ensure compliance with environmental obligations. Management is kept informed through regular updates and monitoring procedures, ensuring that nature-related dependencies, impacts, risks, and opportunities are effectively managed.

Risk Management

QTFN's Risk Management Framework identifies nature-related risks based on risk classification, evaluating from quantitative and qualitative viewpoints. Each nature-related risk is assessed considering its degree of impact and likelihood of occurrence. This is presented within Aroona Station's nature-related risk register. QTFN's approach to addressing nature-related risks includes regular monitoring and reporting, as well as implementing mitigation strategies to address potential impacts.

Nature-related risks that have been assessed as having a minor residual risk are delegated to operational personnel for day-to-day monitoring and review. Moderate residual risks are prioritised and monitored by the Audit and Risk Committee for Board action. Any nature-related risk classified as having a major residual risk under current circumstances is treated as an immediate priority, which may involve prompt resolution by senior management.

Integration of nature-related risks into enterprise risk management processes

The integration of nature-related risks into QTFN's overall risk management processes is a critical component of its risk strategy. QTFN systematically incorporates nature-related risks and opportunities into its overall risk assessments, ensuring that nature-related risks are considered in decision-making processes at all levels.

Appendices

Appendix 1 Aroona Station Nature-related Dependencies and Impacts

	Ecosystem service		Materiality of dependencies / impacts for Aroona's operations
Dependencies	Provisioning services	Fibres and other materials	Very high
		Genetic materials	Very low
		Ground water	Very high
		Surface water	Very high
	Regulating & maintenance services	Pollination	Very low
		Soil quality	High
		Ventilation	Very low
		Water flow maintenance	High
		Water quality	Very high
		Bioremediation	Medium
		Dilution by atmosphere and ecosystems	Low
		Filtration	Medium
		Mediation of sensory impacts	Low
		Buffering and attenuation of mass flows	Low
		Climate regulation	High
		Disease control	High
		Flood and storm protection	Very high
		Mass stabilisation and erosion control	Low
Pest control	Low		

	Cultural services	Education, scientific and research services	Very high
		Spiritual, artistic and symbolic services	Very high
Impact Drivers	Land and sea use change	Terrestrial ecosystem use	Very high
		Freshwater ecosystem use	Very high
	Resource exploitation	Water use	Very high
		Other resource use	Low
	Pollution	Soil pollutants	Medium
		Water pollutants	Medium
		Non GHG air pollutants	Medium
		Solid waste	Low
	Climate change	GHG emissions	High
	Invasive species	Invasive alien species	Medium

Source: ENCORE

Appendix 2 Aroona Station's Material Dependencies

Dependencies	Ecosystem services	Dependency metric	Details
	Provisioning services	Biomass provisioning services	<p>Aroona station is principally dependent on grass/legume pastures and onsite cultivated fodder production for raising cattle. Additional protein as supplements or lick may also be imported. Grass land requires mostly open spaces to maximise feed/area within reach of water source. A balance can be obtained by adjusting stocking rate that can allow more standing treed areas for shelter and support local biodiversity (woodland). Stocking rate will vary with seasonal condition and available rainfall.</p> <ul style="list-style-type: none"> • The current available grazing area is 1760 hectares (240 hectares excluded until 2027, under the offset management plans). While some areas are categorised as an offset area, they are allowed to be grazed when certain triggers have been met, typically when high to very high fuel hazard loads have been assessed. Other areas are planted zones and again need to meet requirements and are subject to short grazing periods to minimise potential damage. This has been independently assessed (required by agreement), and criteria need to be adhered to. • The current stocking rate is 280 head. <ul style="list-style-type: none"> ○ Regular management meetings between farm manager and land and assets manager dictates the forecasting of stocking rate matching carrying capacity at any given time. • The potential stocking rate with current feed on offer is approximately 500 head. • Grazing management involves forward forecasting of the available feed in each paddock, measured in stock days per hectare. Livestock are grouped according to their specific feed requirements, such as breeding cows. Each stock class is assigned a Livestock Unit (LSU) rating. By calculating the total LSU ratings of a group (or mob) of animals, Aroona Station determines how much feed the mob will consume daily and estimate how long they can graze in a paddock without overgrazing. This process is supported by field observations and captured in the software systems, Maia grazing, which tracks the accuracy of forecasting.

Dependencies	Ecosystem services	Dependency metric	Details
	Provisioning services (cont.)	Water supply	<p>The main factor which determines the suitability of water for stock is the proportion of dissolved salts in the water. Generally, surface waters are low in salts compared with artesian or underground water.</p> <ul style="list-style-type: none"> • Off-stream water sources are utilised across the property, though not exclusively. Achieving this goal requires ongoing infrastructure investment. In areas where off-stream water sources have been introduced, fenced riparian corridors have been allowed to naturally regenerate, and some planting has been done to enhance water quality, retention, and provide habitat. • Fresh water for livestock on Aroona is made available to stock via - water points spring/dam, water tank, bores and troughs. • Water allocation per stock is in the range of 50-100 Litres/head/day depending on seasonal conditions. • The available water allocation and historical draw down of water at Aroona Station is unknown. • Water quality downstream is maintained by incorporating livestock water sources away from creek areas. This reduces livestock fouling creek areas. • The number of head across the property is maintained in line with water and available feed. • At Aroona Station there is no specific drought management plan document. However, regular management meetings between farm manager and land and assets managers dictate the forecasting of stocking rate matching carrying capacity at any given time. Regularly watching the market fluctuations and acting to sell and buy according to best outcome is regularly discussed.
	Regulating & maintenance services	Rainfall pattern regulation services	The grassland relies on natural rainfall rather than irrigation. The region receives an average of 1000mm of rainfall annually, with the majority falling during the wetter months from November to March, making it a summer-dominant rainfall system.
		Soil quality regulation services	At Aroona Station soil profile testing has been carried out in hay paddocks to ensure that synthetic fertilizer use is specifically tailored to the needs of these production areas.
		Soil and sediment retention services	Ensuring soil health involves several key practices: maintaining soil integrity, preventing fertilizer run-off, and protecting exposed topsoil from being washed away by rain.
Dependencies	Ecosystem services	Dependency metric	Details

	Regulating & maintenance services (cont.)	Water flow regulation services	<p>Overland flow velocity is principally managed through vegetation presence, including:</p> <ul style="list-style-type: none"> • Existing contour banks on the property designed to slow the overland flow of water. • Restoration of eroded sections of drainage channels has been undertaken and is ongoing across the property. • The property is heavily wooded in elevated areas, which reduces overland flows and allows for the recharging of aquifers and soaks. • Successful trials of utilising stock crossings to form naturally leaking weirs have been conducted, with more planned. This work coincided with riparian planting and fencing to allow targeted, time-controlled grazing. The semi-stagnant water has slowed the flow of water leaving the property, allowing longer dwell time to soak into the surrounding landscape, thereby enhancing water retention on the property.
		Storm mitigation services	Aroona Station relies on storm mitigation ecosystem services to protect cattle and infrastructure from the impacts of wind and other storms. This includes using vegetation to provide shelter for livestock.
	Cultural services	Education, scientific and research services	Indigenous and local communities' knowledge is incorporated to inform management practices at Aroona Station, specifically fire management.

Appendix 3 Aroona Station's Material Impacts

Impacts	Driver of nature change	Impact metric	Details
	Land use change	Area of land use	<p>An established area of land is required for raising cattle, including the necessary facilities, for pasture to grow supplemental feed and grazing. The following details outline land use for Aroona Station:</p> <ul style="list-style-type: none"> • Overall property size: 2,000 hectares. • Area of land used for fodder production: 20 hectares looking to increase to ~50 hectares with capital investment being considered currently. • Area of land for grazing: 400 hectares of grazing with an additional 1298 hectares grazed for fuel load management (under offset conditions). • Area of land as offset: 1743 hectares. • Managed stocking rate (head/hectare): Currently understocked at 5.91 hectares/ LSU. The potential stocking rate with current feed on offer is ~500 head. • Other infrastructure onsite includes three set of yards, hay storage sheds, a workshop, a shipping container, a colour bond shed, a brick house and property tracks. <p>Additionally, the following management practices are implemented to address land use impacts:</p> <ul style="list-style-type: none"> • Ground cover is monitored through field observations and fuel hazard assessments. Forage forecasting and stock movements are planned in advance using a grazing plan, facilitated by the MaiaGrazing platform. • Fire Plan: A fire plan is in place and updated annually to reflect the planned burns for the property. • Access across the property is via unsealed tracks, which are regularly maintained by slashing. Heavy equipment is used as needed to keep access routes open and safe. • A risk assessment is in place for the property, and the incident management process is currently being reviewed and updated. • A biosecurity check-in procedure is in place. • A visitor register is maintained.

Impacts	Driver of nature change	Impact metric	Details
	Resource exploitation	Volume of water use	<p>Water at Aroona Station is primarily used for livestock and onsite purposes. Currently, all water usage is not monitored. Troughs are strategically placed throughout the property for livestock. To prevent pollution and damage, stock access to watercourses is limited wherever possible. This is an ongoing project, progressing as funds become available. Additionally, drainage lines direct water from production areas to watercourses.</p> <p>Grazing is predominantly on the lowland flats with light grazing pressure to maintain grass cover, resulting in minimal flow rates.</p>
	Pollution	Emissions of non-GHG air pollutants	Non-GHG emissions, including pollutants like ammonia and those from waste management and agricultural inputs, are minimal at Aroona Station. Currently, no data is collected on these emissions.
		Emissions of toxic pollutants for water and soil	Improper management of manure can lead to toxic soil and water pollution, introducing harmful bacteria, chemicals, and pollutants like ammonia and nitrates. At Aroona Station, livestock are kept in open fields and away from waterways, with their numbers generally low enough to prevent significant pollution issues.
	Climate change	Emissions of GHG	<i>Data is not available.</i>
	Invasive species	Introduction of invasive species	A weed management plan is implemented in accordance with Aroona Station's offset agreement. Additionally, feral animals are managed under the same agreement and are subject to a dedicated management plan.

Appendix 4 Aroona Station's Nature-related Risks and Opportunities

Risk Type	Risk Description	Risk Consequences
Risk - Physical - Chronic	Deterioration of soil condition and quality due to poor land management practices.	<ul style="list-style-type: none"> Decline in agricultural yields. Lower fodder quality and reduce yields, thus increasing the need for intensive agriculture inputs use and increasing farm operating costs. Degraded soil no longer efficiently absorbs, infiltrates and stores water - less resilience to flooding and higher dependency on irrigation. Overland flow is not managed due to the lack of vegetation present as a result of soil degradation. Decrease in land productivity a leading to profit loss due to yield losses.
Risk - Physical - Acute	Natural pollinators fail to adapt to changing climate.	<ul style="list-style-type: none"> Loss of and reduction in crop yield and increase in crop and livestock pests and diseases due to changes in abundance of pollinators. Increase capital expenditures on adaptation e.g. mechanical pollinators. Reduction in revenue and increased costs due to interruption of operations/supply chain and decrease in fodder.
Risk - Physical - Acute	Fertiliser/chemical application pollutes and/or contaminates sensitive water systems.	<ul style="list-style-type: none"> Reduced availability and quality of water for fodder production and cattle grazing. Reduced revenue due to decrease in agricultural outputs.
Risk - Physical - Acute	Existing farming infrastructure are not adequately designed or located to withstand extreme weather events such as flooding or fire.	<ul style="list-style-type: none"> Increase in capital expenditure due to infrastructure repair. Reduced crop yield and reduced agricultural output, resulting in reduced revenue. Increased production costs as investments may be needed to mitigate the effects of extreme weather events. Severe weather events may result in the loss of livestock, either through direct fatalities or indirectly through reduced health and productivity.
Risk - Physical - Acute	Riparian damage leading to sediment mobilisation in sensitive waterways.	<ul style="list-style-type: none"> Contamination of water bodies. Increased sediment mobilisation and loading in water bodies. Degraded water quality and potential downstream sedimentation issues.
Risk - Physical - Acute	Access to water of suitable quality and quantity necessary for Aroona Station's business activities is constrained.	<ul style="list-style-type: none"> Reduced output - unable to cultivate grassland, as a food source for cattle. Increase in production and sourcing costs resulting in increased operating costs.

Risk Type	Risk Description	Risk Consequences
		<ul style="list-style-type: none"> Production of fodder restricted due to inability to procure water.
Risk - Physical - Acute	Water licensing condition constrain access to stock and domestic water usage.	<ul style="list-style-type: none"> Non-compliance with requirements may result in fines, and legal action. Increased costs due to non-compliance and resource scarcity.
Risk - Physical - Acute	Conservation efforts (i.e., conservation of certain species and habitats) inadvertently help invasive species prosper.	<ul style="list-style-type: none"> Reduced effectiveness of conservation efforts, resulting in reputational damage. Increased maintenance and operational costs due to the costs associated with managing invasive species. Invasive species can result in long-term damage to ecosystems, resulting in negative changes to landscape and loss of ecosystem services.
Risk - Physical - Acute	Farmland management practices result in the disruption to conservation activities.	<ul style="list-style-type: none"> Pests and diseases in check. Loss of production and increase in costs for agrochemicals to compensate. Loss of revenue due to reduction in crop production. Loss of biodiversity / ecosystem services.
Risk - Transitional - Reputation	Poor public perception of QTFN's Aroona Station flora and fauna management and conservation efforts from farm lobbying and environmental advocacy groups.	<ul style="list-style-type: none"> Reduced revenue and/or investment. Negative reputation. Increased operational costs due to reduction in loyalty of suppliers or stakeholders. Difficulty in accessing finance due to poor investor stakeholder perception.
Opportunity - Resilience	Introduction of policies and regulations that push for more stringent nature positive targets and outcomes.	<ul style="list-style-type: none"> Improved reputation. Access to new markets resulting in increased revenue.
Opportunity - Products and services	Introduction of improved fertiliser and weed management techniques/practices resulting in reduced input costs.	<ul style="list-style-type: none"> Reduced input costs. Increase in revenue due to an increase in crop yields.
Opportunity - Resilience	Revenue growth from expanded environmental offset areas at Aroona Station.	<ul style="list-style-type: none"> Access to new markets resulting in increased revenue. Improved reputation.
Opportunity - Products and services	Increase in market valuation due to regenerative farming practices and increase in percentage of natural vegetations enhancing ecosystem services and environmental assets (e.g. soil structure increases resilience to weather-related shocks).	<ul style="list-style-type: none"> Increase in revenue due to improved reputation. Increased market valuation through resilience planning. Increased revenue through demand for regenerative farming practices. Access to new markets resulting in increased revenues. Increase in brand value due to successful implementation of regenerative farming practices/conservation efforts.

Risk Type	Risk Description	Risk Consequences
Opportunity - Products and services	Investment in organic beef farming practices resulting in a product price premium.	<ul style="list-style-type: none"> • Access to premium markets. • Increase in revenue due to improved reputation.
Opportunity - Products and services	Investment in the restoration of an area of degradation with purpose to enhance infrastructure resilience and link habitat corridors.	<ul style="list-style-type: none"> • Increase in revenue due to improved reputation. • Increased resilience of Aroona Station's operations. • Reduced capital/ infrastructure costs. • Increased market valuation through resilience planning.

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