Arnhem Land Fire Abatement

ALFA (NT) Limited
Annual Report 2024

ALFA
Arnhem Land
Fire Abatement

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Aboriginal and Torres Strait Islander people are advised that this report may contain images and names in print of deceased people.

Front cover: Increased involvement of women in land management is a key outcome achieved through the fire program in Arnhem Land. Here three women rangers from Warddeken watch over a fire break around an Anbinik forest to ensure the fire stays under control. Photo © Warddeken.

Right: Early dry season burning supports healthy Country with cool, low intensity burns that create barriers to stop the spread of wildfires later in the season. Photo © Bawinanga Djelk.

Back cover: An aerial view of the rivers and floodplains of the Djelk Indigenous Protected Area. Photo © Stephanie King.

1 — Jon Altman, Jennifer Ansell and Dean Yibarbuk (2020) No ordinary company: Arnhem Land Fire Abatement (Northern Territory) Limited, Postcolonial Studies, 23:4, 552-574

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Arnhem Land Fire Abatement (ALFA [NT] Limited) is a 100 per cent Aboriginal-owned, not-for-profit carbon farming business, established in 2015 by Traditional Owners to facilitate their engagement with the carbon industry.

ALFA supports Traditional Owners and affiliate ranger programs in delivering six registered fire projects across an area of 86,000 km².

ALFA's carbon credits – among the most trusted in Australia – reflect Indigenous leadership, cultural fire knowledge, and a deep and enduring care for Country.

Every dollar from the sale of ALFA's carbon credits is reinvested in jobs, training, and community priorities, making ALFA a powerful model of Aboriginal-led climate action.

At the start of the dry season, Traditional Aboriginal Owners and rangers across Arnhem Land commence a cultural practice passed down through countless generations - carefully burning their custodial estates using sophisticated fire management practices.

Arnhem Land is a landscape defined by deliberate, nuanced environmental and cultural burning, and the work performed by ALFA's partners plays a crucial role in sustaining the ecological balance and cultural integrity of Country. By combining ancient wisdom with modern technology, fire management programs are addressing critical environmental solutions at a local, national and global scale.

To ensure the long-term sustainability of this work, ALFA facilitates engagement with the carbon industry on behalf of its partners, supporting Traditional Aboriginal Owners and rangers from across Arnhem Land to access the funding they require to deliver global best-practice fire management projects.

Jayden Wurrkkidj, a Rock Art Project Officer with Warddeken, conducts and monitors a ground burn around a rock art gallery. Photo © Warddeken.

A Djelk Ranger navigates Country during an aerial burn. Photo © Bawinanga Djelk.

The following values represent the objectives for which ALFA was established. All income generated through the sale of carbon is spent in line with these objectives.

To protect, preserve and care for the environment through abatement of the level of global greenhouse gas emissions by utilising bushfire management activities.

To preserve and conserve native Australian fauna and flora through bushfire management activities that accord with Aboriginal traditional rights and obligations and Australian law.

To collaboratively pursue the investigation, development and implementation of other activities which will protect, preserve and care for the environment and which are consistent with Aboriginal traditional rights and obligations and Australian law.

In relation to Aboriginal persons who have a traditional Aboriginal connection with any part of the project area, to provide for the relief of poverty, sickness, suffering, distress, misfortune, destitution, helplessness or the aged.

To provide for the advancement of education of Aboriginal persons who have a traditional Aboriginal connection with any part of the project area.

ALFA (NT) Limited has a total of nine membership classes, representing the operational areas of partner ranger groups and organisations that manage each of the six registered fire projects.

"The specific Indigenous form of participatory governance that guides ALFA's operations, always cognisant of Landowner authority, is fundamental to ALFA's ability to support forms of Aboriginal-led development focused on conservation."[1]

ASRAC rangers planned out their burning season with the help of satellite maps showing burn histories at the ALFA pre-season fire meeting. Photo © Stephanie King.

Membership of ALFA is open to Aboriginal people with customary responsibilities for regions of Arnhem Land under active bushfire management as one of the six registered fire projects.

ALFA is governed by 18 Aboriginal Directors. Two Directors are elected from each of the nine membership classes.

The Company also employs a Chief Executive Officer, Chief Financial Officer, Capacity Development and Training Manager, Grants and Impact Manager, Bushfire Project Officers, and Seasonal Fire Officers.

Board of Directors and Staff 2024
Adjumarllarl — Jethro Guymala, Anderson Nalorlman
ASRAC — Gladys Malibirr, Otto Campion
Bawinanga Djelk — Felina Campion, Jamie Yibarbuk
Jawoyn — Veronica Birrell, Tristan Maroney
Mimal — Alfred Rickson, Anthea Lawrence
NALFA — Charmaine Minkirrkirr, Eslyn Wauchope
SEAL — Julie Roy, Clive Nunggarrgalu
Warddeken — Conrad Maralngurra, Terrah Guymala
Yirralka — Lanydjana Mununggurr, Yalapura Gumana

An ASRAC Ranger uses a backpack leaf blower to push back a fire. Photo © ASRAC.

ALFA Board of Directors 2024

This Board of Directors was active until the AGM on December 5th 2024, when a new board was elected.

Membership class

Adjumarllarl	ASRAC	Bawinanga Djelk	Jawoyn

Directors

Jethro Guymala

Gladys Malibirr

Felina Campion

Veronica Birrell

Anderson Nalorlman

Otto Campion

Jamie Yibarbuk

Tristan Maroney

Mimal	NALFA	SEAL	Warddeken	Yirralka

Alfred Rickson

Charmaine Minkirrkirr

Julie Roy

Conrad Maralngurra

Lanydjana Mununggurr

Anthea Lawrence

Eslyn Wauchope

Clive Nunggarrgalu

Terrah Guymala

Yalapura Gumana

A helicopter soars above the stone country of the Warddeken Indigenous Protected Area. Photo Warddeken © Kane Chenowith.

ALFA staff

Top left to right: Dr Jennifer Ansell (CEO), John O'Brien (CFO), Mark Desailly (Capacity Development and Training Manager), Francesca Noakes (Grants and Impact Manager), Stephanie King (Bushfire Project Officer), Rob Bakes (Bushfire Project Officer), Travis Enright (Seasonal Fire Officer), Sally Clifford (Governance Facilitator).

CEO Report

ALFA reached an incredible milestone in 2024, celebrating ten remarkable years of the company operating to support registered savanna fire management offsets projects in Arnhem Land.

Whilst Traditional Owners and their partners had developed and piloted the Savanna Fire Management greenhouse gas abatement method from 2006 through the WALFA project, the establishment of the federal governments carbon legislation and ongoing extensive consultations with Traditional Landowners meant that both the WALFA and CALFA projects were not registered as offsets projects with the Clean Energy Regulator until December 2014. The very first ALFA ACCUs were issued in January 2015, just weeks before the recently elected Government abolished the Carbon Pricing Mechanism and the market shifted significantly from a legislated carbon price to lowest cost Government-purchased abatement. However, despite the volatility at the market and carbon policy level, ALFA continued to build upon its solid foundations, maintaining its support of existing projects and partners as well as supporting new Aboriginal ranger group partners to engage with the new carbon market.

Ten years, six projects, 6.6 million ACCUs, and eleven project partners later, ranger groups across Arnhem Land continue to coordinate highly sophisticated fire management projects that support and enhance the rights and obligations of Traditional Owners. This model of Traditional Owner led project ownership and delivery continues to deliver incredible fire management results for people, for Country and, through the production of significant greenhouse gas abatements, for climate change mitigation.

In the last ten years the fire regimes in Arnhem have shifted dramatically compared to baseline fire regimes. As a result of operating their fire offsets projects and reinvesting carbon income to fund fire management, the Arnhem Land fire projects have been able to decrease the total area burnt each year, with a significant decrease in the area of late dry season wildfire. Reinstating customary fire management has resulted in early dry season fires that have become smaller and more numerous (indicators of patchy fire) as well as increasing the area of longer unburnt patches.

In September 2024, the ALFA Directors held a Board meeting at Kabulwarnamyo. This place holds special significance for ALFA as the heart and birthplace of the WALFA project. Directors spent the week on Mok Country reflecting on the leaders who had come before

The ALFA board and staff visit Kundjorlomdjorlom – an important rock art and occupation site – during an ALFA board meeting at Kabulwarnamyo, hosted by Warddeken. Photo © ALFA.

them and reminiscing about time spent on Country learning from these elders. I am privileged to work for such a knowledgeable and dynamic board of Traditional Landowners from across Arnhem Land. Each Director brings to the table their knowledge of their Country, culture and family along with experience gained through their work within community-based organisations. Their ongoing commitment to the wellbeing of the people of Arnhem Land and the management of Country is inspiring.

As 2024 came to a close, the Northern Land Council approved the renewal of the WALFA, CALFA and SEALFA Land Use Agreements for another eleven years. After three years of pre-consultation as well as formal statutory consultations, the response from Traditional Landowners was resounding support for the continuation of the ALFA projects, the continued coordination of fire management programs by their ranger groups and continued participation in the carbon economy.

The renewal of the Land use Agreements highlighted that the work and achievements of Traditional Landowners and rangers in delivering fire projects is a great source of pride. This was a fitting end to a year in which we celebrated the achievement of ten remarkable years for ALFA and its project partners in Arnhem Land.

I want to thank ALFA's small team of talented and dedicated staff members as well as ALFA's project partners – the Aboriginal ranger groups and their host organisations in Arnhem Land for their continued support of ALFA in 2024.

Finally, I wish to acknowledge that we are only here today as a result of the vision, leadership, hard-work and dedication of many people over many decades. Their contributions, past and present, has created, maintained and grown this wonderful Company. I cannot wait to see what opportunities the next ten years will bring for Arnhem Land.

Dr Jennifer Ansell
CEO

ALFA's core actions

Manage the generation and sale of ACCUs for the ALFA project areas

Contract and fund partner Aboriginal ranger groups to deliver fire management activities

Support annual pre- and post-season meetings for partner groups and stakeholders

Fund bushfire project officers to support ranger groups throughout the year and continue to build their capacity

Coordinate data collection and reporting

Deliver accredited custom developed training

Manage a grants program to fund partner ranger groups develop and undertake community led projects consistent with ALFA's charitable objects

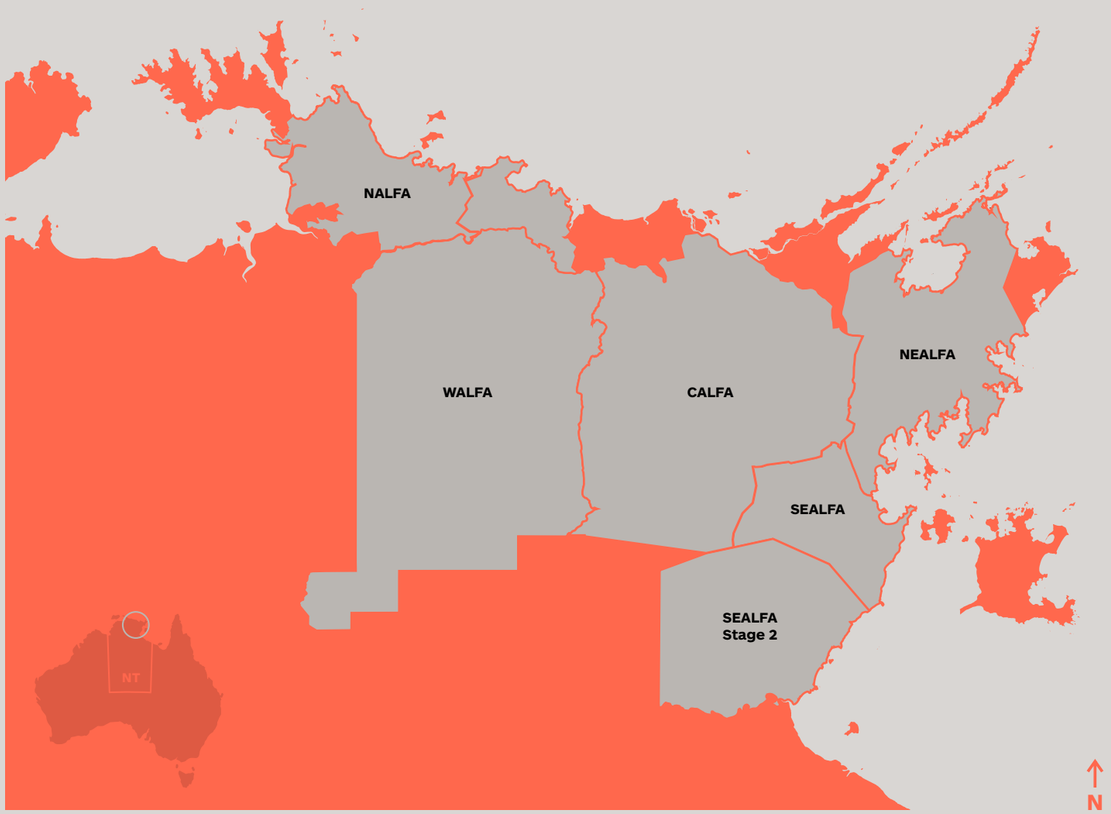
Provide policy and industry advice and support the ongoing development of the Indigenous carbon industry

"From a Western ecological perspective, fire management in Arnhem Land, resourced through ALFA's engagement with the carbon industry, has successfully addressed the prevalence of hot, widespread and destructive wildfires in the landscape – a threat to the environmental assets of northern Australia recognised in both Aboriginal and Western science knowledge systems." [1]

With ranger groups have returning healthy fire to the landscape, vistas such as this are common across Arnhem Land throughout the dry season. Photo © Bawinanga Djelk.

ALFA represents 11 Arnhem Land based Aboriginal ranger groups and their constituent Traditional Owners. Collectively, they manage an area of >86,000 km², encompassing vast expanses of savanna woodlands, rugged sandstone escarpments, floodplains, monsoonal rainforests, intact riparian ecosystems and remote coastal regions.

Map of project areas



ALFA's partners operate six registered fire projects, all of which generate Australian Carbon Credit Units (ACCUs) through the federal government's Savanna Burning Methodology.

- **West Arnhem Land Fire Abatement (WALFA) project**
- **Central Arnhem Land Fire Abatement (CALFA) project**
- **South East Arnhem Land Fire Abatement (SEALFA) project**
- **South East Arnhem Land Fire Abatement 2 (SEALFA2) project**
- **North East Arnhem Land Fire Abatement (NEALFA) project**
- **Northwest Arnhem Land Fire Abatement (NALFA) project**

Summary of ALFA project areas – overall key statistics

1 tonne carbon dioxide equivalents (CO_2-e) = 1 Australian Carbon Credit Unit (ACCU)

WALFA

Ranger groups involved

Bawinanga Rangers
Mimal Rangers
Jawoyn Rangers
Warddeken Rangers
Adjumarllarl Rangers

Project area
28,000 km²

Running for:
14 years

ACCU issuance to date
2,891,109

CALFA

Ranger groups involved

Bawinanga Djelk Rangers
Mimal Rangers
ASRAC Rangers

Project area
26,000 km²

Running for:
14 years

ACCU issuance to date
2,800,868

SEALFA
(>1000mm)

Ranger groups involved

Yugul Mangi Rangers
Numbulwar Numburindi Rangers

Project area
5,000 km²

Running for:
14 years

ACCU issuance to date
371,879

SEALFA2
(600–1000mm)

Ranger groups involved

Yugul Mangi Rangers
Numbulwar Numburindi Rangers

Project area
10,000 km²

Running for:
10 years

ACCU issuance to date
134,749

NEALFA

Ranger groups involved

Yirralka Rangers

Project area
11,000 km²

Running for:
9 years

ACCU issuance to date
425,881

NALFA

Ranger groups involved

Garngi Rangers
Mardbalk Rangers
Adjumarllarl Rangers

Project area
6,675 km²

Running for:
3 years

ACCU issuance to date
81,648

Attendees at one of the first meetings to bring together Landowners from across west and central Arnhem Land to discuss fire management, held at Weemol in 2005. Many of the leaders in this image are now deceased, though their legacy lives on. Image courtesy of Peter Cooke.

A homegrown success story

The history of fire projects in Arnhem Land

"It is difficult to overstate the impact of the WALFA Project on today's carbon market. As the landscape-scale model upon which the government-approved Savanna Burning Methodology was based, WALFA has provided a template for every current and future savanna burning fire management project across northern Australia."

ALFA's origins can be traced to the pioneering West Arnhem Land Fire Abatement (WALFA) project – the first savanna burning abatement initiative in the world.

Now recognised globally as the model for savanna burning projects, WALFA emerged from the concerns of Indigenous Traditional Owners about the impact of unmanaged fire on their custodial estates.

In the mid-1990s, Elders and cultural leaders from across Arnhem Land began working with a small group of non-Aboriginal scientists to discuss fire's role in caring for Country. They explained that, before the depopulation of the Arnhem Plateau and surrounding areas, fire had been their key tool for land management.

Elders spoke powerfully about 'orphaned Country' – lands left empty as Landowners moved to missions and settlements – and expressed deep concern that, without customary fire practices, the physical and spiritual health of Country was in decline. These fears were confirmed by satellite data, which revealed that destructive late dry season wildfires had become dominant across the region. Burning intensely for months across thousands of square kilometres, these wildfires were only extinguished with the arrival of wet season rains.

Early discussions inspired a shared vision: that Traditional Owners could return to live on Country and restore customary fire practices vital to the health of their custodial estates. Over the following decade, ranger groups in Arnhem Land, working with limited resources, refining their ability to manage fire at scale, and adapting traditional knowledge to modern tools and techniques.

Alongside the reintroduction of controlled burning for Country, scientists developed methods to quantify its effectiveness as a method to reduce greenhouse gas emissions – measuring fire extent, analysing seasonal differences in greenhouse gas (GHG) emissions, and examining vegetation-specific emission profiles. Together, Indigenous fire experts and researchers established a clear link between customary burning and emissions reduction – work that became the foundation for today's government-approved Savanna Burning Methodology.

Despite this pioneering work and research, restoring fire management across such vast areas of Country remained financially unviable until 2006 when, after years of negotiation, ConocoPhillips entered into the West Arnhem Fire Management Agreement with the Northern Territory Government and five Indigenous ranger programs – Adjumarllarl, Bawinanga Djelk, Jawoyn, Mimal and Warddeken. Through this agreement, the company committed to fund ongoing fire management over more than 28,000 km^2 of west Arnhem Land – the WALFA project area to meet the development obligations of their Darwin LNG plant.

This ground-breaking model secured long-term support for Indigenous-led fire programs, enabling communities and Traditional Owners to resume large-scale, strategic early dry season burning.

The legacy of the WALFA project is far-reaching. As the model upon which the Savanna Burning Methodology was built, WALFA created the opportunity for savanna burning project across northern Australia to earn and sell carbon credits under Australian carbon legislation.

The origin of ALFA

Following the introduction of carbon legislation in Australia in 2011, the five ranger groups involved in the WALFA project resolved to transition the then-voluntary initiative into an eligible offsets project, enabling them to earn and sell Australian Carbon Credit Units (ACCUs).

Extensive consultations were held with Landowners to determine how best to establish an Aboriginal-owned company that could represent their collective interests in the carbon market. In 2013, WALFA Limited was created for this purpose. Two years later, it was renamed ALFA (NT) Limited to reflect the organisation's expanding reach across Arnhem Land.

Traditional Owners were clear in their directive: ALFA must be not-for-profit, with all revenue from ACCU sales reinvested into partner Aboriginal ranger groups to support local employment, cultural preservation, and environmental management. ALFA continues to uphold this vision, operating with minimal overheads so that 95 per cent of income is returned directly to ranger groups.

The WALFA project became ALFA's first eligible offsets project when it was formally registered in late 2014. Since then, ALFA has supported Traditional Owners to register and operationalise five additional projects across central, south-east and north-east Arnhem Land. Together, these six projects cover a contiguous, ecologically and culturally significant area of 86,000 km^2.

Fire management operations across these regions are carried out entirely by eleven Aboriginal ranger groups – comprising Traditional Owners and their families – who implement customary and contemporary burning practices on their custodial estates.

Left: From the beginning, a core tenet of the fire projects has been creating opportunities for Elders to transmit their customary fire knowledge and skills to younger generations. Photo © Mimal.
Above: ASRAC Ranger Margie lights a fire in the cured grass around the Arafura Swamp. Photo © ASRAC.

Customary Fire Management Actions

Engage the right people for Country in the planning and delivery of all fire management activities.

Burn early in the dry season at times of heavy dew and little wind, so that fires burn slow and cool, and go out overnight.

Burn strategically, using natural breaks such as moist ground along creeks, cliff lines and tracks to leave patches of unburned Country surrounded by burned breaks.

Left to right: 1. Rangers from neighbouring areas work together to plan out burning across shared areas and boundaries. Photo © Stephanie King; 2. Ground burning in the early dry season. Photo © Bawinanga Djelk; 3. Rangers often use helicopters to conduct strategic aerial burning in remote and inaccessible Country. Photo © SEALFA; 4. Warddeken Rangers monitor fire impacts on key fauna species. Photo © Warddeken; 5. Seth Jumbirri conducts a survey and protective burning at Manamnam rock art site. Photo © Warddeken; 6. Culture camps, held on Country with children, young people, families and Elders, help pass on fire knowledge to the next generation. Photo © Nawarddeken Academy.

Protect fire sensitive ecological communities, flora and fauna by utilising cool burning and creating early-burned breaks.

Protect sacred sites, rock art galleries, burial sites and other sites of cultural significance by creating early-burned breaks.

Teach the next generation of Traditional Owners to master customary fire management skills and knowledge, preparing them to take over the project in the future.

Savanna Burning Methodology

Left: Mimal Rangers use a drone to assess a ground burn. Photo © Mimal.
Above: Warddeken Rangers patrol a firebreak with rake hoes during a wildfire suppression campaign. Photo © Warddeken.

All fires emit greenhouse gases, with savanna fires releasing significant amounts of methane and nitrous oxide. The savanna burning methodology provides a framework for measuring the change in greenhouse gas emissions through the reintroduction of cool, low intensity fire in the early dry season.

The methodology compares annual project emissions to a emissions from a real historical baseline, typically the ten years prior to a project's commencement. By shifting fire regimes from late dry season to early dry season – aligned with customary Aboriginal burning practices – projects reduce the volume of methane and nitrous oxide released into the atmosphere.

For every tonne of carbon dioxide equivalent avoided, one Australian Carbon Credit Unit (ACCU) is issued. Net abatement is calculated as the difference between the average baseline emissions for the project area and those recorded during each year the project operates as an eligible offsets project. Only projects that achieve a reduction in emissions are eligible to generate credits, and ALFA adheres to strict audit and reporting guidelines to demonstrate the efficacy of the six fire projects managed by our partners.

ALFA's high integrity carbon

Achieving deep, rapid and sustained reductions in greenhouse gas emissions is critical as the world faces an escalating climate crisis. To limit global warming, businesses must prioritise reducing emissions in line with science-based targets. Alongside efforts to avoid and reduce emissions, carbon offsets can support businesses to progress towards their short- and long-term emissions reduction targets.

Recently, there has been an increasing focus on the role of offsets and the carbon market in Australia as a mechanism for driving climate action. Often overlooked in these criticisms is a recognition of high integrity ACCU products in the market and a discussion of the key features of high integrity carbon projects.

In Arnhem Land, carbon market finance has delivered significant and measurable on ground impacts that supports genuine emissions reductions, enhances biodiversity, reduces landscape threats, reinforces cultural land management rights and reinvests carbon income into Aboriginal land management and community outcomes on Country.

There are three key factors enabling the production of high integrity ACCUs in Arnhem Land:

1. All ALFA projects operate under the Savanna Fire Management (SFM) method with the Australian Carbon Credit Unit (ACCU) Scheme which is regulated by the Clean Energy Regulator.

   As a nature-based carbon method, the Savanna Fire Management method is considered high integrity due to:

   — the environmental and cultural aspirations that led to its development

   — the breadth of scientific research on which the method is based

   — the annual active application of fire management as the eligible activity

   — the uptake across a broad range on land tenures in northern Australia to address environmental and cultural goals

   — the ability for the eligible activity, fire management, to be independently and publicly verified on the North Australian Fire Information (NAFI) service

   — the transparency in SFM projects with abatement claims freely verifiable by the public at any time through the Savanna Burning Abatement Tool (SavBAT).

2. ALFA's operations and performance outcomes produce ACCUs that maximise environmental, social, cultural, and economic co-benefits.

3. The charitable reinvestment of ALFA ACCU income supports culturally appropriate fire management and community-led priority projects that support people to care for Country in Arnhem Land.

The following pages showcase how fire management activities under ALFA projects are delivering impact for the people and Country of Arnhem Land.

Senior Warddeken ranger and ALFA board member Terrah Guymala lights a fire with quick-strike matches. Photo Warddeken © Kane Chenowith.

Our impact

Through ALFA's high-integrity carbon projects, fire management in Arnhem Land is delivering measurable benefits for climate, biodiversity, culture, and communities.

Through involvement in cultural activities and fire-related events, many young people across Arnhem Land are gaining the customary knowledge and skills that will guide fire projects into the future.
Photo © Nawarddeken Academy.

Celebrating 10 years of ALFA

ALFA
Arnhem Land
Fire Abatement

In 2024, ALFA celebrated ten years of Aboriginal led fire management delivering powerful outcomes for people, culture and Country supported by the ACCU scheme and carbon market. Built on generations of knowledge and guided every step of the way by Traditional Owners, ALFA has grown into one of Australia's most respected and impactful Indigenous-owned carbon businesses.

At the heart of ALFA's success is the enduring leadership of Traditional Owners, Elders, and rangers, who continue to shape the work of fire management today, just as their ancestors have done for millennia. This foundation of cultural governance underpins all of ALFA's operations, land use agreements and partnerships.

ALFA now supports six fire projects across Arnhem Land; together these projects cover an enormous area of remote and culturally rich Country. Early dry season burning undertaken by rangers has significantly reduced destructive wildfires, improved biodiversity, and abated millions of tonnes of carbon emissions. Just as importantly, fire work has kept people active on their Country, created meaningful jobs, supported language, songs and ceremony, and given young people a pathway into ranger work and cultural leadership.

Over the past decade, ALFA has established a robust and stable income for our partners through the carbon market; it has sold high-integrity ACCUs under long-term contracts and maintained a trusted reputation for transparency and impact. Most importantly, ALFA ensures carbon income has flowed directly back to community ranger programs to fund jobs, vehicles, infrastructure, training and cultural projects – priorities determined locally by Traditional Owners and rangers.

ALFA has also grown to take on a national leadership role – co-founding the Indigenous Carbon Industry Network (ICIN), contributing to climate change and emissions policy development, and speaking up for the value of Indigenous fire management in national and global conversations about climate and conservation.

As ALFA moves into its second decade, we are immensely proud of what has been achieved, and clear-sighted about where we are going.

Evonne Munuygu of ASRAC Rangers elegantly recreates the ALFA logo during a day of early season burning. Photo © Steph Rouse and ASRAC.

A decade of change

2024 marks ten years of ALFA project operation under the ACCU scheme and ten years of reinvestment of ACCU income to fund fire management in Arnhem Land. The very first ALFA projects, WALFA and CALFA, were registered in December 2014; with the SEALFA and NEALFA projects registered respectively in 2015 and 2016 and NALFA in 2022. During this decade, the fire projects in Arnhem Land have consistently delivered exceptional and sustained fire management results.

Satellite fire imagery demonstrates how the application of planned fire management in Arnhem Land has been very successful at reversing historical wildfire dominated fire regimes. The satellite fire images for the WALFA project on the following page clearly shows the transformational change in fire regimes resulting from the project. In the pre-project baseline years, severe late dry season wildfire (mapped in red) burnt through large sections of the WALFA project area and were visible from space. In stark comparison, the reintroduction and continued application of planned low-intensity fire to the landscape has significantly reduced the frequency and extent of severe wildfires within that same area. This pattern under pre and post project operations is evident for all of the ALFA projects.

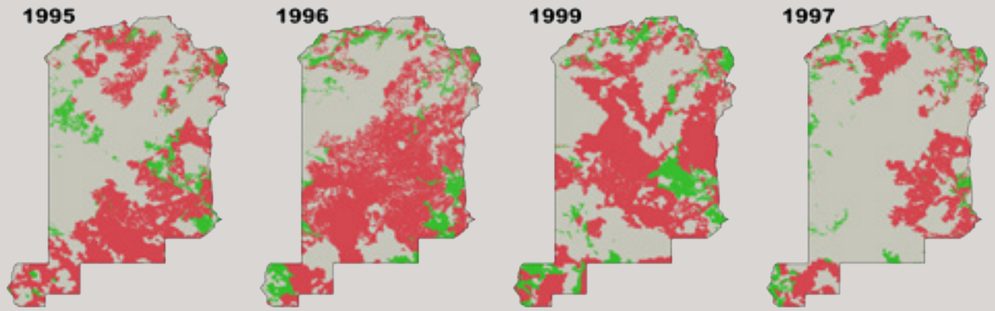
To find out more about how fires are mapped from space or to examine the detailed fire histories and contemporary fire management results in Arnhem Land, readers can explore the North Australian Fire Information (NAFI website https:// firenorth.org.au/nafi3/). This incredible website, enables the public to view the fire history of an area, assess available fuel loads, plan for the application of fire at a landscape-scale and assess the success of an executed planned burn. NAFI also displays real-time fire hotspots in the landscape and is a highly interactive tool to follow the annual application of fire to the remote Arnhem Land landscapes.

Left: ASRAC Rangers work with Ramingining School to deliver a Learning on Country program. Here, secondary students are supported to conduct ground burning with drip torches. Photo © ASRAC.

Above: ALFA board member Conrad Maralngurra lights an early dry season fire near his homeland community of Mamadawerre, alongside his niece Maureen and other family members.
Photo © Matthew Abbott and Warddeken.

Fire management outcomes

WALFA project area baseline mapping – Before project operation 1995–2004

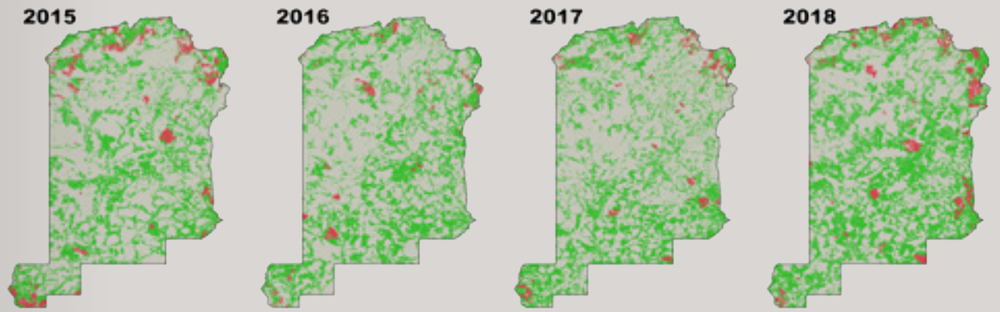


These comparative maps demonstrate the effectiveness of ALFA fire projects in re-establishing fire regimes led by cool, strategic early dry season burns – reflecting customary fire management practices in Arnhem Land.

Early dry season fire – 1 January to 31 July

Late dry season fire – 1 August to 31 December

A decade of change – WALFA project operation mapping 2015–2024



Warddeken's Mayh Species Recovery Project involves IPA-wide, long-term biodiversity monitoring coupled with ecological recovery and research. Here, rangers deploy motion sensor cameras to capture images of wildlife. Photos © Kane Chenowith.

Protecting nature

Arnhem Land supports an unusually high number of endemic plant and animal species, distinctive vegetation types and many nationally recognised threatened species. Customary fire plays a vital role in the protection and preservation of this unique biodiversity.

Habitat protection
Wildfires in Arnhem Land impact biodiversity by contributing to the loss of plant species and destruction of habitat, refuges and important food sources for native animals, including species of cultural and conservation significance.

Many animals in Arnhem Land are considered of conservation significance by western science because they are rare or threatened elsewhere in Australia or because they are endemic to Arnhem Land. Some of these species include Leichhardt's grasshopper, the Oenpelli python, water monitors, the white-throated grasswren, northern quoll, northern brushtail possum, black-footed tree-rat, black wallaroo and the pygmy rock-wallaby.

As individual species respond to different fire regimes and species are co-located in landscapes, no single fire regime can optimise all biodiversity outcomes. For example, some savanna mammals benefit from fire regimes that reduce wildfire frequency and retain areas of long-unburnt vegetation. Other important factors include the distribution of different-aged stands of vegetation, intact riparian areas and rainforest pockets and preservation of tree hollows and fruiting trees.

As demonstrated on page 36-37, the joint strategies of reinstating customary fire regimes and actively suppressing wildfire under the fire projects have successfully reduced the frequency and extent of severe wildfires across Arnhem Land, while supporting more diverse mosaics of vegetation and management of long-unburnt patches in the landscape.

Invasive species control
Wildfires are closely linked by severity and scope to the threat to biodiversity from feral animals – including buffalo, cattle, horses and cats – particularly for small mammal populations. Research in northern Australia demonstrates that feral cats are attracted to areas in the landscape with a recent history of wildfire because their hunting is more effective in these burnt areas where the vegetation cover has been removed. The reintroduction and maintenance of early-season fire regimes that are favourable for a broad range of native species supports biodiversity efforts and can help reduce the impact of feral animals.

Monitoring and management
Access to Country through fire programs enables Rangers and Traditional Landowners to maintain and monitor environmental threats throughout the year. Importantly, Aboriginal ranger groups in Arnhem Land have also begun ambitious research and monitoring projects to assess the biodiversity outcomes from their management regimes.

Looking ahead
In the year ahead, ALFA is working with its partners to better quantify the impacts of biodiversity conservation efforts through the management of fire. We see this as being critical for buyers of our carbon credits in understanding the significant role their investment is having in positive nature benefits. Over time, these initiatives may also unlock greater impact through biodiversity credit markets like the Nature Repair Market, offering new opportunities and funding streams.





Above clockwise from top left: Motion sensor cameras in the Warddeken IPA capture images of: Northern brown bandicoot, Arnhem rock rat, Kimberley rock monitor, northern brushtail possum, white-throated grasswren. Photo © Warddeken.

Above right: Short-eared rock wallaby. Photo © Warddeken.

Below right: Black-footed tree-rat. Photo © Warddeken.


Warddeken's Mayh Species Recovery Program

Warddeken's Mayh (native animal) Species Recovery Project is the largest landscape-scale monitoring project in the Northern Territory. Operating since 2017, this program has been funded through the reinvestment of ALFA ACCU income generated through the WALFA project and philanthropic funds generated through the Karrkad Kanjdji Trust.

Within a robust program of core fire management activities through the WALFA project, the Warddeken Rangers can draw upon knowledge from the Mayh Species Recovery Project to further enhance burning outcomes for specific environmental assets within their IPA.

A key example of this species-specific fire management is the Yirlinkirrkkirr (the white-throated grasswren) – a small bird of great cultural importance to bininj Landowners in western Arnhem Land. A ground-dwelling bird, endemic to the stone country of the Arnhem Land Plateau, the Yirlinkirrkkirr require long unburnt spinifex (over 3 years) within areas of bare rock. Listed as vulnerable under the EPBC Act, the Yirlinkirrkkirr has been identified by the Australian Federal Government as a priority species for conservation action. Through Warddeken's ecological monitoring and research program, Landowners and rangers have detected three new Yirlinkirrkkirr locations and confirmed the persistence of the species at two other sites. These known populations, along with high value Yirlinkirrkkirr habitat, are factored into the planned aerial and ground burning activities undertaken by Warddeken.

Carbon income impact

Income generated through ALFA's carbon projects is reinvested directly into the people, places and programs that support fire management across Arnhem Land.

The following four stories from the 2024 fire season highlight how this funding is making a difference on the ground and in communities.

A riverside campsite on the annual Stone Country Bushwalk, a collaboration between Warddeken and their local partners Nawarddeken Academy.

Building the team
Jawoyn Women Rangers on the rise

Carbon impact on the ground
Case Study 1

“We want to build up us girls to be our own bosses.”
— Jawoyn Ranger

Over the last two years, Jawoyn has focused on building a women’s ranger program to support more local women into land management roles. That commitment gained momentum in 2024, with three full-time and two casual women rangers now part of the team and plans underway to bring on up to six more.

Supported by ALFA carbon income, the women’s team (known as the Ngalmuka Rangers) has stepped into a growing range of responsibilities. This past year, the Ngalmuka Rangers have taken part in ALFA fire training, contributed to water surveying and gamba grass control, and participated in the digital women’s ranger program. In 2025, they’re looking to take on an even larger role by supporting Traditional Owners to protect rock art sites on Country and expanding their work in water monitoring.

Jawoyn is also investing in key infrastructure to support the women’s team’s development, including a dedicated office space at the ranger base and a field vehicle. Alongside this, there is a strong focus on creating training pathways to help women gain relevant certifications and build long-term careers in land management. One ranger is already enrolled in a Certificate II in Conservation and Land Management, with others looking to follow.

A close partnership with the Banatjarl Strongbala Wimun Group has also shaped the program. Every Tuesday and Thursday, the rangers spend time with senior women at the Banatjarl centre or out on Country, collecting weaving materials, gathering bush medicine and supporting the transfer of cultural knowledge between generations.

The program is steadily working towards a future where women lead their own teams and shape the direction of land management in Jawoyn Country.

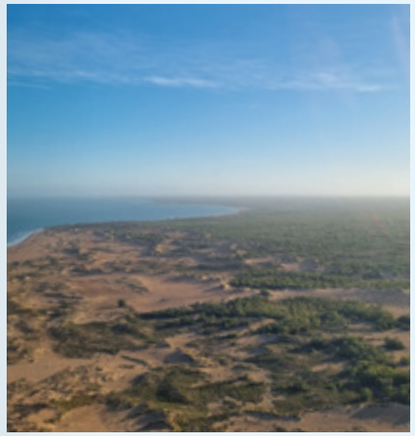
Above: Aerial burn lines viewed from a helicopter. Photo © Jawoyn.
Below: Sarah completes her aerial bombardier training with ALFA. Photo © Stephanie King.

Left: Yugul Mangi Rangers with their new bus. Photo © Northern Land Council.

Right: SEAL has two ranger teams: the Numbulwar Numburindi Rangers, based on the coast at Numbulwar, and the Yugul Mangi Rangers, based beside the Roper River in Ngukurr. Photo © Northern Land Council.

Wheels on the road
Two new buses in the SEAL Indigenous Protected Area (IPA)

Carbon impact on the ground
Case Study 2



To improve how ranger teams move across Country, SEAL IPA invested in two new 4WD buses in 2024, supporting the Yugul Mangi and Numbulwar Numburindi Rangers to travel together and carry out work across their IPA. Purchased through ALFA's grants program, the buses are already playing an important role in enabling coordinated operations and increasing time spent on Country.

Previously, the simple act of getting rangers and community members out on Country was a logistical nightmare. Limited vehicle access and high travel costs meant that often opportunities were limited to a small number of rangers at a time. The new buses have changed that, enabling whole ranger teams to travel together more efficiently, with lower fuel use, fewer maintenance issues and more time spent on Country.

More than just a practical solution, the buses are helping to improve day-to-day operations and cultural connection. They allow rangers to travel together to outstations, undertake joint operations, and attend regional meetings and training. They also support cultural protocols by enabling men and women to travel separately and the delivery of cultural camps and Learning on Country activities.

Capital purchases like these buses are often ineligible under government or philanthropic funding rules, which is why ALFA's flexible funding model remains vital. By enabling ranger groups to invest in the tools they actually need, ALFA continues to support community-driven approaches to caring for Country.

Lighting the match
Djelk's community fire videos

Carbon impact on the ground
Case Study 3

"We give the matches to Traditional Owners,
so they can burn their own land."
— Senior Ranger

This year the Djelk Rangers took an innovative approach to supporting community fire management. Using ALFA carbon income, the team produced a series of short social media videos promoting the safe and effective use of quick-strike matches, which they distribute for free to Traditional Owners during the early dry season.

These small matches carry a big message – fire management belongs in the hands of Landowners. By making it easier for people to burn their Country early and safely, the rangers are reducing the risk of damaging late season fires, supporting community-led burning and keeping cultural fire practice alive.

To encourage uptake, the Djelk team created videos in English and four local languages (Kune, Kunwinjku, Burarra and Djinang) with plans to add Njébbana, the main language of Maningrida, next. The videos explain how to use the matches properly, the importance of early burning, and key safety messages. Most importantly, they reinforce that these matches are being given to Traditional Owners, supporting local leadership in fire management across the 26 homelands of the Djelk IPA.

Shared on Facebook, the videos are helping to build momentum for early burning while also strengthening relationships between rangers and the wider community.

By sharing clear messages in local languages, and providing practical tools to support action on Country, the Djelk Rangers are working alongside Landowners to support strong, community-led fire management.

Left: The sun rises over the Djelk IPA. Photo © Bawinanga Djelk.
Above: Rangers Jethro and Jamie demonstrate the safe use of quick-strike matches. Photo © Bawinanga Djelk.

Top left: New ranger bases will provide teams with improved facilities to assess and care for Country. Photo © ASRAC.

Top right: Ranger Rexy carries a solar panel for the satellite base. Photo © ASRAC.

Below: ASRAC CEO Helen Truscott with Balbara Manager and senior knowledge holder Dr Otto Campion at the Malnyangarnak ranger base. Photo © ASRAC.

Out on Country
ASRAC's satellite ranger bases

Carbon impact on the ground
Case Study 4

"We want to support people to get back out caring for their own Country, and that's what the satellite ranger bases is about. It's about helping families to go back home."
— Balbara Manager and Traditional Owner, ASRAC

For ASRAC, having rangers living and working on their own Country is central to the ranger group's long-term vision. In 2024, that vision took a major step forward with the upgrade of five remote satellite ranger bases, made possible through ALFA carbon income.

The completion of the Malnyangarnak ranger office stands as a major milestone. With new decking, roofing and solar power now in place, rangers can work from the outstation year-round for the first time. The shift from seasonal deployment to permanent infrastructure at Malnyangarnak is an important step in bringing ASRAC closer to its goal of fully staffed ranger bases operating across the Arafura Swamp region.

At other sites including Balinga, Ngalindi, Donydji and Mirrngatja, recent upgrades have improved access, safety and facilities. These improvements are supporting rangers to spend more time in remote areas, respond more effectively to land management priorities, and operate with greater independence and security. Whether through new water infrastructure, safe storage for equipment, or upgraded housing to support extended stays on Country, each investment is helping remove the barriers that limit a ranger presence in these remote areas.

The upgrades to the satellite ranger bases have begun to reshape how ASRAC delivers land management across the Arafura Swamp. With rangers now better supported to live and work from their own estates, the organisation is building a more active presence across all remote reaches of its IPA. The expansion of the satellite base network is also strengthening connections between Country, culture and employment and helping to achieve long-held aspirations of communities within the ASRAC region.

Capacity Development and Training Program

TRAINING UNIT COMPLETIONS 2024

WORK SAFELY AROUND AIRCRAFT - 18 PEOPLE
OPERATE AERIAL IGNITION EQUIPMENT - 18 PEOPLE
PREVENT INJURY - 9 PEOPLE
RESPOND TO WILDFIRE - 2 PEOPLE
ASSIST WITH PLANNED BURN - 5 PEOPLE

The ALFA Capacity Development and Training Program was developed to meet the growing demand for high-quality, culturally appropriate, accredited fire management training across Arnhem Land. As ranger groups build their expertise in large-scale savanna burning, ALFA developed a training model specific to the needs of Aboriginal fire practitioners in Arnhem Land that is tailored to the realities of working on Country. Rangers called for on-the-job training that could bridge language and literacy barriers, recognise existing skills, support the safe use of equipment and continue to build and use a highly specialised fire management expertise.

Launched in 2021 in partnership with a local Registered Training Organisation, TrainSafe, the program currently offers the delivery of five Units of Competency: Working Safely Around Aircraft, Operate Aerial Ignition Equipment, Fireground Safety, Wildfire Response, and Planned Burning. These nationally accredited units were selected for their relevance to savanna burning and are delivered and assessed to suit the cultural and environmental context of Arnhem Land. Training focuses heavily on helicopter safety, incendiary equipment, and protecting people and assets during wildfire events.

All training is delivered on Country and aligned with the practical skills rangers need in their day-to-day work. ALFA uses a hands-on, small-group model to provide tailored support to meet the individual needs of participants with varying literacy and language backgrounds. Keeping class sizes small allows for one-on-one instruction and a focus on practical skills-based learning. All ALFA fire support staff are now certified trainers, including one female trainer, significantly improving both access and availability of culturally appropriate training. A series of multilingual training videos have also been developed in Kunwinjku, Yolŋu Matha and east-side Kriol. These serve as an important resource for future delivery and reflect the program's commitment to accessible training.

In 2024, 24 rangers completed accredited training through the program, including four daluk (women) rangers certified as aerial burning bombardiers. Demand for aerial burning units remained strong, with training covering both theory and practice. Rangers learned to safely operate, maintain and troubleshoot the Raindance incendiary machine, undertake operational flights, and respond to in-flight emergencies (including machine jams).

There was also increased engagement with fireground safety and suppression training in 2024, as ranger groups work towards managing more complex fire scenarios in the future. The program's flexible on Country delivery model continued to allow rangers to build confidence and apply new skills directly to their work.

A review of the program's first three years found widespread support for the training model. Rangers and coordinators consistently reported improved safety, stronger technical skills and greater operational confidence.

With more than 150-unit completions since 2021, and six ranger groups having completed multiple accredited units, the program is now embedded as a core part of ALFA's operations. It is helping to grow a skilled and confident cohort of Aboriginal fire practitioners. By strengthening fire knowledge, improving safety, and providing skill development opportunities for rangers, the program is supporting Aboriginal rangers to continue to be pioneers of fire management in Australia.

ALFA gratefully acknowledges the support of the Karrkad Kanjdji Trust and ILSC, whose investment during the pilot phase laid the foundation for this program's continued success.

Top left: ALFA Capacity Development and Training Manager Mark Desailly provides instruction to Yirralka Rangers on the maintenance of the Raindance machine. Photo © Yirralka Rangers.
Top right: Bawinanga Djelk Rangers build skills in mixing fuel for aerial burning operations. Photo © Bawinanga Djelk.
Below: As part of their aerial burning training, Bawinanga Djelk Rangers demonstrate to Mark Desailly how to prepare the Raindance machine. Photo © Bawinanga Djelk.

Representing Arnhem Land at a Royal Roundtable

ALFA CEO Dr Jennifer Ansell and Director Dr Otto Campion joined global leaders in a high-level climate discussion hosted by His Majesty King Charles III.

In October 2024, ALFA CEO Dr Jennifer Ansell and Director Dr Otto Campion were invited to represent ALFA at the Sustainable Markets Initiative (SMI) Roundtable, hosted by His Majesty King Charles III. The event brought together business leaders from across Australia and the Pacific to discuss how the private sector can contribute to climate and biodiversity goals.

ALFA's participation was deeply significant – it acknowledged the leadership of Traditional Owners in delivering high-integrity, nature-based climate solutions and placed Aboriginal fire management on the global stage. As a senior Balngarra man and respected fire expert, Dr Campion brought cultural authority and deep knowledge of Country to the discussion, alongside Dr Ansell's experience in running a successful Indigenous-led carbon enterprise.

Their presence ensured Indigenous fire practitioners were heard by major decision-makers and provided a rare opportunity to share the importance of supporting Aboriginal communities to lead on climate action with locally developed solutions. The roundtable also highlighted ALFA's unique model – delivering carbon projects grounded in culture, science and community benefit – as one that delivers real outcomes for people, Country and climate.

This was a rare opportunity for ALFA to share how Aboriginal-led fire solutions are innovative and impactful, and deserve greater recognition, support and investment.

ALFA CEO Dr Jennifer Ansell and Board Member Dr Otto Campion join His Majesty King Charles III for a roundtable discussion at Admiralty House, Sydney.

Fire Management Activities Summary 2024

– Planning and consultation
– Asset protection
– On ground burning
– Aerial burning
– Cultural programs
– Wildfire suppression

This section of the report provides an overview of the success of our partners against each core strategic action. Figures represent the combined totals of all ranger groups.

Early dry season burns take place in the cooler months, when conditions support controlled, low-intensity fires. Photo Warddeken © David Hancock.

Summary of ALFA project areas – 2024 management statistics

*Combined totals of ALFA partners.

Flight line kilometres represent the total distance flown by each project during planned aerial burning operations.

EDS % is the per cent of the project area burnt in the early dry season (January to July). LDS % is the per cent burnt in the late dry season (August to December).

Unburnt % represents the total area of each project unburnt by early or late fire. Research suggests maintaining long unburnt areas of Country is a key requirement to protect threatened fauna, and so undertaking planned burning early in the EDS and active wildfire prevention in the LDS to maintain large tracts of unburnt Country is critically important.

1 tonne carbon dioxide equivalents (CO_2-e) = 1 Australian Carbon Credit Unit (ACCU)

WALFA

Flight line km
30,455

Ground burning km
3,039

EDS % burnt
33.3

LDS % burnt
2.7

Total % burnt
36

Unburnt %
64

ACCU issuance
264,924

CALFA

Flight line km
27,905

Ground burning km
7,911

EDS % burnt
31.1

LDS % burnt
10.5

Total % burnt
41.6

Unburnt %
58.4

ACCU issuance
257,239

SEALFA
(>1000mm)

Flight line km
4,262

Ground burning km
745

EDS % burnt
18.3

LDS % burnt
17.4

Total % burnt
35.7

Unburnt %
64.3

ACCU issuance
26,486

SEALFA2
(600–1000mm)

Flight line km
5,005

Ground burning km
1,178

EDS % burnt
18.5

LDS % burnt
8.4

Total % burnt
26.9

Unburnt %
73.1

ACCU issuance
13,729

NEALFA

Flight line km
7,388

Ground burning km
224

EDS % burnt
8.5

LDS % burnt
19

Total % burnt
27.5

Unburnt %
72.5

ACCU issuance
67,269

NALFA

Flight line km
4,001

Ground burning km
160

EDS % burnt
32.3

LDS % burnt
6.5

Total % burnt
38.8

Unburnt %
61.2

ACCU issuance
31,971

Before early dry season fire management begins, ALFA's partner ranger groups travel across Arnhem Land to consult with Traditional Owners of clan estates within their respective project areas. These pre-season discussions are essential in ensuring that Landowners provide direction on where, when, and how burning should take place, and to express whether they wish to participate in fire activities themselves. These consultations underpin each group's annual burn plan, ensuring all fire management is conducted with cultural authority and informed consent.

Each year, this process is further supported by ALFA's pre-fire season meeting, which brings together rangers, stakeholders, and partner organisations to coordinate regional planning and strengthen collaboration. In 2024, rangers gathered at Bawurrrpunta (Emu Springs) on 15 – 16 May for this annual event.

Ranger groups leading fire management under ALFA's six savanna burning projects worked together to develop detailed burn plans, coordinate the management of shared estate and IPA boundaries, and present their fire strategies to the wider group. The meeting plays a central role in setting the tone for each fire season – reaffirming cultural connections, supporting ranger leadership, and strengthening collaborative efforts across the region. Presentations from the Darwin Centre for Bushfire Research, and ALFA also provided valuable insight into seasonal fire outlooks and project priorities.

In addition to this regional gathering, each partner group undertakes internal consultations with both Landowners (patrilineal) and Djungkay (matrilineal) for clan estates within their operational areas. These local discussions provide Traditional Owners with opportunities to help shape fire programs in detail – nominating individuals for aerial incendiary operations, participating in cultural camps and bushwalks, and requesting support for independently led cultural burns.

PLANNING AND CONSULTATION

494

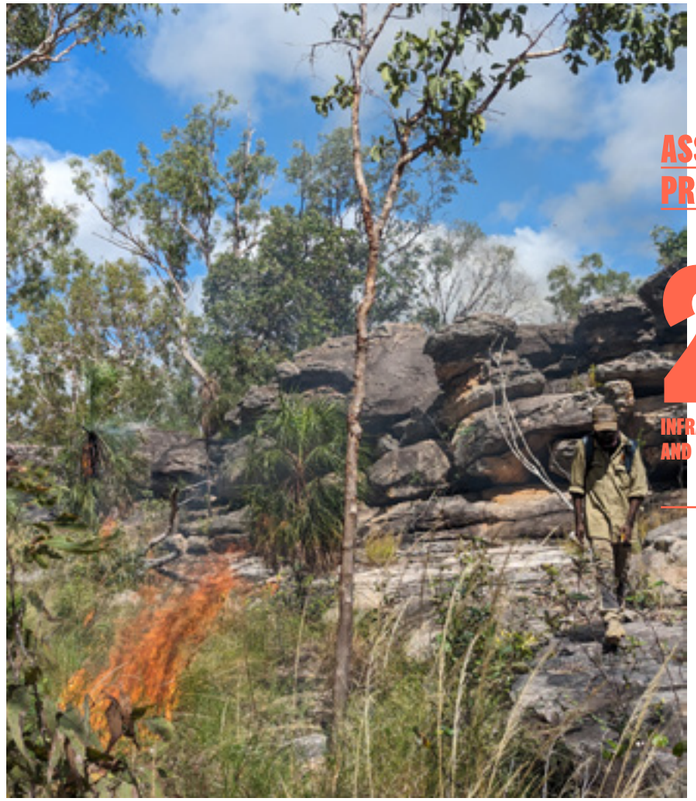
TRADITIONAL LANDOWNERS CONSULTED

Right: Planning with care – a Mimal Ranger records notes for the 2024 fire management plan. Photo © Mimal.

Below: Bawinanga Djelk Rangers contribute to collaborative fire planning during the ALFA pre-season meeting at Bawurrrpunta outstation. Photo © Bawinanga Djelk.

Attendees at the 2024 ALFA end-of-season fire meeting. Photo © Stephanie King.

A key feature of early dry season fire management is the widespread asset protection work undertaken by ranger groups across their respective management areas. Often forming the first stage of the burning season, asset protection ensures that critical environmental, cultural, and infrastructure assets are safeguarded before broader fire operations begin.



ASSET PROTECTION

222

INFRASTRUCTURE, CULTURAL AND ENVIRONMENTAL ASSETS

Left: Early dry season burning helps safeguard rock art sites from the threat of late season wildfires. Photo © Warddeken.
Above: An early dry season asset burn by Yirralka Rangers to safeguard community infrastructure. Photo © Yirralka.

This work typically involves the construction of firebreaks – often mineral earth lines – followed by carefully managed backburning to create a protective buffer around assets. By removing combustible fuel and establishing low-intensity burned zones, rangers reduce the risk of late dry season wildfires causing damage to high-value sites.

The most common application of asset protection is around communities and built infrastructure. Rangers secure houses, ranger bases, schools, airstrips, and essential energy and water infrastructure, ensuring the safety of both people and services in remote locations. These burns often take place in collaboration with local residents and Traditional Owners, who provide knowledge and oversight on the location and significance of nearby assets.

Environmental asset protection is also a major focus. Rangers actively manage long-unburnt habitat refuges that support threatened species such as the white-throated grasswren, Gouldian finch, and northern quoll, as well as fire-sensitive ecological communities including *Allosyncarpia ternata* forests and sandstone heaths. These areas often require fine scale, low-intensity fire to maintain their ecological integrity.

Cultural heritage protection is another critical aspect. Rock art galleries, burial sites, occupation shelters, and sacred sites are routinely protected using early dry season burns, often with the direct involvement of Traditional Owners. By combining Indigenous knowledge with technical fire planning, rangers are able to implement precise strategies to protect culturally significant places – ensuring that rock art galleries are not smoke-damaged, burial grounds remain undisturbed, and sacred sites are shielded from destructive late season fires.

Right: In the rearview mirror, ASRAC Rangers can be seen at work, conducting roadside burns. Photo © ASRAC.

Below: Lighting up along roadsides during ground burning is important, as these areas often become ignition points for wildfires later in the season. Photo © Mimal.

EARLY DRY SEASON BURNING — ON GROUND

13,257

KILOMETRES ON GROUND BURNING

People have used fire to shape and care for Country for thousands of years, lighting small, low-intensity burns as they moved through the landscape during the dry season. These fires supported regeneration, protected important sites, and maintained the ecological balance of the land. Today, on ground burning remains a core component of fire management work undertaken by rangers, who continue this legacy throughout the early dry season.

Traditional Owners and rangers across ALFA's project areas begin to light early season fires as soon as vegetation cures. Strategic burns are carried out along roadsides, walking tracks, and frequently used hunting paths – areas that are common ignition points for destructive late dry season wildfires. Controlled burns are also applied around infrastructure, homelands, and sensitive ecological or cultural sites to create protective buffers.

On ground burning is widely undertaken from vehicles such as 4WDs, quad bikes or side-by-sides, using drip torches or wind-proof matches as ignition tools. To reach areas inaccessible by vehicle, many ranger groups also conduct bushwalks – ranging from day trips to extended camps – allowing precise, fine scale burning across escarpments, floodplains, and remote areas that might not otherwise be visited. This method not only improves fire outcomes but strengthens connection to Country.

Partner ranger groups also host cultural camps, inviting Elders and young people to come together on Country. These events are vital for intergenerational knowledge transfer, offering hands-on learning about reading Country, choosing the right time to burn, and understanding the impact of fire – just as the old people did.

All on ground burning activities are carefully recorded using tools such as GPS, tablets and ranger work diaries, contributing to annual reporting, evaluation, and adaptive fire management planning across the region.

Arnhem Land is one of the most remote and undeveloped regions in Australia, with vast areas of savanna, floodplain, and rocky escarpment Country that are inaccessible by road. To manage fire effectively across these landscapes, rangers rely on helicopters to conduct aerial incendiary burning. This approach enables them to cover large, otherwise unreachable areas, combining traditional fire knowledge with modern technology to deliver effective and culturally informed fire management.

Above right: Aerial burning in action – SEAL Ranger Sarah uses the Raindance incendiary machine. Photo © Stephanie King.
Below right: A Yirralka Ranger prepares to take to the skies in a helicopter to guide aerial burning operations. Photo © Yirralka.

Aerial planned burning (APB) now accounts for the majority of early dry season fire management across ALFA's project areas. Using helicopter-mounted incendiary machines, rangers deliver precise ignitions to create a mosaic of burnt and unburnt patches that reduce fuel loads, protect sensitive areas, and secure fire boundaries between neighbouring estates and Indigenous Protected Areas (IPAs).

Flight routes are informed by a complex range of factors, including topography, sacred sites, real-time weather and fuel conditions, past fire scars, and the deep cultural knowledge of Traditional Owners. Landowners often request that certain areas be excluded from burning during a particular season to protect species, support ceremony, or allow for other cultural purposes. Natural features such as rivers, escarpments, and roads are incorporated into burn plans to help create strategic, landscape-scale firebreaks.

While APB is a modern practice, it is grounded in a deep understanding of Country. By adjusting delivery rates, ignition intervals, and flight lines, rangers are able to closely replicate traditional patterns of cool, patchy burning – applying fire with the same care and precision that has been passed down for generations.

Thanks to ALFA's tailored aerial burning training program, rangers from all partner groups are now highly experienced in APB operations. Each burn is carefully documented using GPS, CyberTracker, and ranger work diaries, ensuring clear records are maintained for evaluation, planning, and reporting.

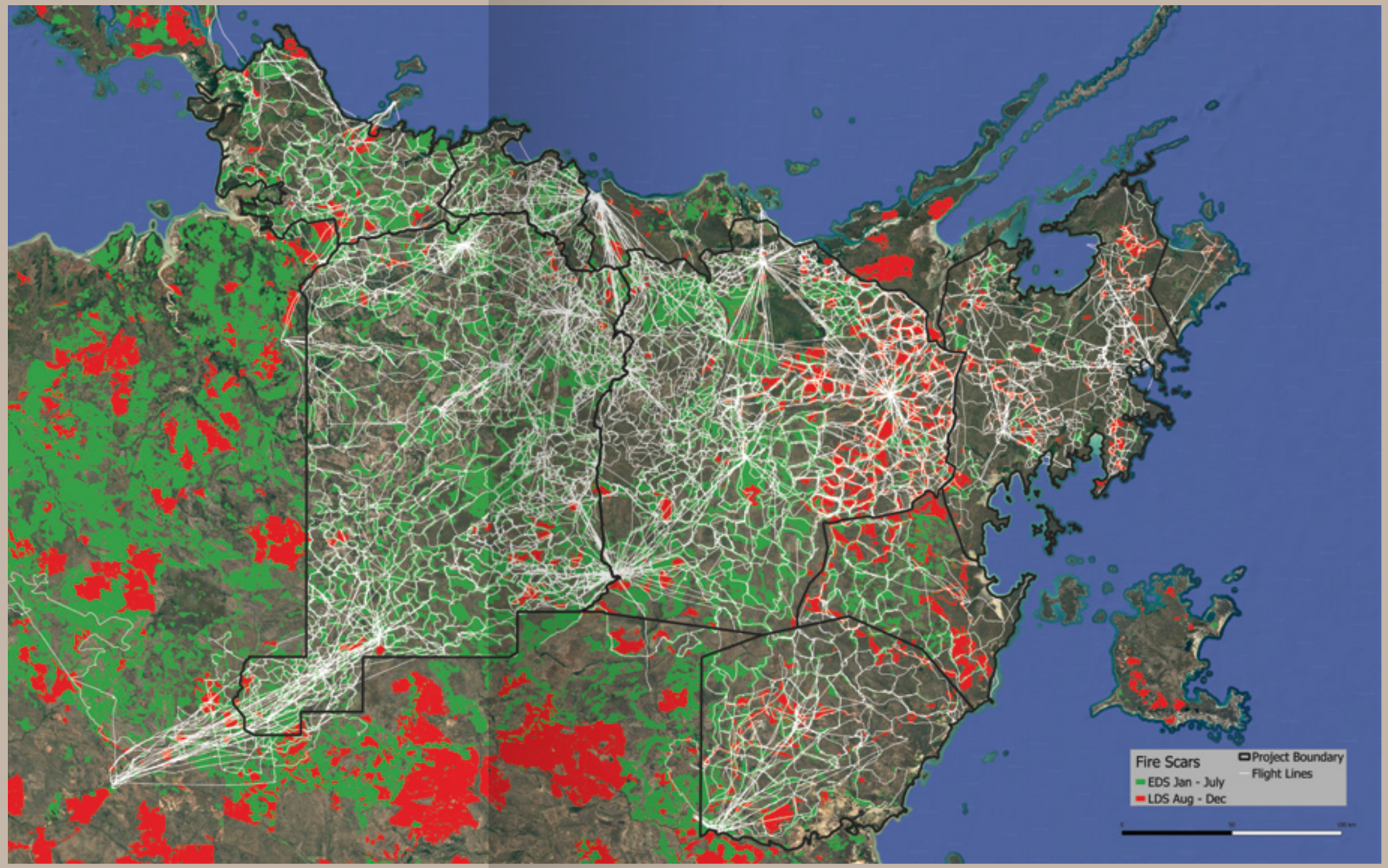
EARLY DRY SEASON BURNING – AERIAL

79,016

KILOMETRES FLOWN

2024 aerial burning across project areas

The lines represent helicopter flight paths planned and flown by ranger groups and Traditional Owners as part of coordinated aerial burning operations. These efforts play a critical role in reducing late dry season wildfire risk and supporting cultural and ecological outcomes for Country.



CUSTOMARY FIRE KNOWLEDGE AND SKILL

30

EVENTS AND ACTIVITIES

Across Arnhem Land, fire holds deep and varied meanings for Aboriginal people and is a central part of life – connecting people to Country, to each other, and to the ways of the old people. Fire is used for hunting, ceremony, cooking, looking after bush foods, and keeping various ecosystems and species healthy.
But using fire properly takes knowledge such as knowing where – or where not – to burn, when to burn, how hot, and for what outcome. That knowledge is still being passed down, often through the work of ranger programs.

Above left: Leon, a Mimal Ranger, and his father Dudley share traditional fire-making practices with Learning on Country students. Photo © Mimal.
Below left: Michelle Bangarr from Nawarddeken Academy – Warddeken's partner organisation who operate four independent schools across the Warddeken IPA – teaches students from Manmoyi how to make a 'bush drip torch', a tool traditionally used in early dry season burning. Photo © Warddeken.

Over the past year, ALFA's partners supported a range of cultural activities that helped keep fire knowledge and skills strong. Learning on Country camps in partnership with local schools created space for intergenerational learning, allowing young people to observe techniques, and then practise burning in a supported environment. Women's fire camps brought together rangers from different groups to talk about their roles in fire management – both in terms of modern ranger work and cultural practices – while lighting burns, cooking together, and sharing stories.

At a kangaroo fire drive, Warddeken Rangers used strategic burns to flush kangaroos into open areas, where younger hunters learned to track and spear them under the guidance of senior men. Groups organised bushwalks across Country, moving through different habitats and burning as they went. These trips gave young people a chance to learn directly from Elders and rangers – how to read the landscape and weather, light fires safely, and understand how fire is necessary to keep Country healthy.

Central to ALFA's vision is a commitment to supporting the next generation of fire managers to take on leadership in future fire projects. Income from the sale of ACCUs helps ranger groups make space for cultural activities – like bush camps, fire walks and hunting trips – that are teaching young people the knowledge and responsibilities needed to step into those roles.

From August onwards, as the late dry season sets in and conditions become hotter and drier, ranger groups shift their focus to wildfire prevention and suppression. During this time, wildfires can burn intensely and spread rapidly, posing serious risks to cultural sites, ecosystems, and infrastructure. In response, rangers raise community awareness about dangerous fire conditions and, when required, coordinate targeted wildfire suppression efforts to protect priority areas of Country.

Wildfire suppression has become an increasingly central component of annual fire management programs. Most firefighting is carried out "dry," relying on non-water-based techniques. These include the use of mineral earth breaks – cleared strips of soil that remove fuel loads and act as containment lines to slow or stop the fire's spread.

A distinctive feature of firefighting in Arnhem Land is the widespread use of backpack leaf blowers. These are used to extinguish flames and push embers, grass, and leaf litter back into the fire front, helping to control and contain the blaze.

Due to the remoteness of many fire lines, helicopters are often needed to transport ranger crews into inaccessible areas. Rangers frequently respond to fires that threaten culturally significant or environmentally sensitive sites, and their efforts have, on many occasions, successfully preserved these vital assets from destruction.

WILDFIRE SUPPRESSION

82

WILDFIRE SUPPRESSION CAMPAIGNS

Backpack leaf blowers, first pioneered by Warddeken Rangers and Bushfires NT's Michael Carter in the early 2000s, are now an essential fire management tool. Photo © Warddeken.

Left: Rangers use backpack leaf blowers to push back a wildfire in the rock country of the Djelk IPA. Photo © Bawinanga Djelk.

Below far left: A wildfire blazes in rocky country. Photo © Warddeken.

Below left: Backpack leaf blowers are an essential component of any wildfire suppression campaign in Arnhem Land. Photo © Warddeken.

Right: An aerial photograph taken from a helicopter shows the progression of a wildfire moving through Country. Photo © Warddeken.

Below right: Bawinanga Djelk Rangers at the ready with their trusty leaf blowers. Photo © Bawinanga Djelk.

United Nations Sustainable
Development Goals

The United Nations (UN) Sustainable Development Goals represent a global call to action to end poverty, protect the planet, and improve the lives and wellbeing of people everywhere. Adopted by all UN Member States in 2015 as part of the 2030 Agenda for Sustainable Development, the 17 Goals outline an ambitious 15-year plan for global progress.

sdgs.un.org/goals

SUSTAINABLE DEVELOPMENT GOALS

Through the delivery of Indigenous-led land and cultural heritage management programs, ALFA's partners are actively contributing to a number of these global goals. Income generated through the sale of Australian Carbon Credit Units (ACCUs) enables ranger groups to implement comprehensive fire management initiatives that reduce carbon emissions, enhance the ecological health of Country, and align with traditional burning practices.

Just as critically, these programs deliver significant cultural, social and economic co-benefits for Traditional Owners and their communities. In doing so, ALFA's partners are making a meaningful contribution to several key Sustainable Development Goals – embedding global principles in local, community-led action.

Suzannah Nabulwad has worked with Warddeken for over a decade and is now the most senior daluk female ranger at the company – a role model and mentor for younger women and kids across the Warddeken IPA. Photo © Warddeken.

Goal 1. No Poverty

Millions of dollars annually are reinvested in communities through wages.

Ranger programs provide employment opportunities in remote communities.

Goal 3. Good Health and Wellbeing

People are able to harvest and access bush tucker through ranger programs.

Landowners are supported to live and work on their Country.

Connection to cultural identity is enhanced.

Goal 2. Zero Hunger

Ranger groups operate food security programs such as tucker runs.

Regular income allows families to buy food.

Ranger programs support people to live on Country and access bush foods.

Goal 5. Gender Equality

Many of ALFA's partners have dedicated women's ranger programs.

More women rangers are involved in fire operations every year.

Goal 8. Decent Work and Economic Growth

Ranger programs offer meaningful, highly sought-after roles in economically disadvantaged regions.

Ranger programs support staff to access training and education.

Goal 13. Climate Action

The work of ALFA partners leads to significant GHG emission reduction every year.

ALFA has led others to replicate our model of business, leading to more GHG avoidance.

Goal 11. Sustainable Cities and Communities

Ranger groups provide essential services in remote communities.

Ranger groups offer the only employment in many homeland communities.

Goal 15. Life on Land

Ranger work respects the choice of Traditional Owners to remain on Country.

Ranger groups are providing a future for people on Country.

ALFA partners with eleven community and homeland-based Aboriginal ranger groups, supporting them to collaboratively implement six large-scale fire management projects across 86,000 km² of Arnhem Land.

These project areas include four declared Indigenous Protected Areas (IPAs), each managed by its corresponding ranger group:
– Djelk IPA
– Warddeken IPA
– South East Arnhem Land IPA
– Laynhapuy IPA

In addition, two further IPAs – Mimal and ASRAC – are currently under consideration for formal declaration by the Australian Government.

The following section profiles each of our exceptional partners, demonstrating the professionalism, dedication, and cultural authority with which they deliver best-practice fire management across Arnhem Land.

Yirralka miyalk (women) rangers are all smiles after touching down in the chopper during aerial bombardier training. Photo © Yirralka.

Adjumarllarl, Garngi and Mardbalk Rangers

NALFA project

In 2024, Adjumarllarl, Garngi and Mardbalk Rangers built on years of partnership to deliver a fire season defined by collaboration and skill development. Operating across Arnhem Land's north-western mainland, the three groups continued to strengthen their joint fire program through early burns, asset protection and, for the first time, targeted late dry season gap-filling.

Planning began with consultations across the region where Landowners and community members expressed strong support for continued burning and identified key areas for early action. Rangers also met with pastoralists, tourism operators and other stakeholders to ensure safe coordination across land uses.

Early burning focused on protecting key infrastructure, access routes and known ignition points. A joint fire camp at Wauk Outstation brought the three groups together with Traditional Owners and ALFA staff to carry out burns along roadsides and around assets, including Telstra towers, bores and outstations. Each group also undertook burns on their own Country, supported aerial operations, and worked closely with community members to ensure areas of cultural and operational priority were covered.

What made the 2024 season distinct was the introduction of targeted gap-filling – strategic burns carried out later in the season aimed at stopping wildfires before they spread. This was the first time these three ranger groups had undertaken gap-filling together. Rangers used helicopters, blowers and ground coordination to join burnt fire breaks, successfully halting several fires. Mardbalk Rangers stopped a southern-spreading fire with backburning and blower work, and Garngi and Adjumarllarl Rangers identified and responded to hotspots across their project areas.

For Garngi Rangers, who are based on Croker Island, participation in ALFA's fire program has enabled them to maintain an ongoing presence on the mainland. In 2024, this included joining Adjumarllarl and Mardbalk Rangers for the week-long fire camp in July and taking part in joint operational work throughout the season. Garngi are now looking at ways to strengthen their involvement in mainland fire management, including the potential purchase of a vehicle or barge to transport ranger assets.

During one of these late dry season fire operations, Garngi Rangers also identified illegal foreign fishing vessels off the north-west coast of Croker Island. This incident formed part of a broader spike in sightings across 2024, raising concerns among Traditional Owners about unauthorised access to culturally significant waters and pressure on local marine resources. It also highlights how fire operations support broader land and sea stewardship – helping rangers maintain a stronger presence and oversight across their Country.

Across the season, Adjumarllarl, Garngi and Mardbalk Rangers focused on working together – filling in the gaps, building skills, and keeping Country protected. In 2025, they plan to expand training, strengthen early season operations, and continue refining a cross-boundary fire program shaped by local knowledge and shared purpose.

Rangers from Mardbalk and Garngi perform burning along the coastline during the early dry season.

Arafura Swamp Rangers Aboriginal Corporation

CALFA project

ASRAC
Arafura Swamp Rangers Aboriginal Corporation

The Arafura Swamp Rangers Aboriginal Corporation (ASRAC) supports a network of ranger groups across central Arnhem Land who work together to care for Gurruwiling (the Arafura Swamp), its catchment, and the surrounding saltwater Country. ASRAC's work draws on strong family networks and cultural knowledge to deliver landscape-scale fire management that reflects local priorities and traditional practices.

The 2024 fire season was shaped by heavy late rains that delayed curing and pushed operations later into the year than planned. Asset protection burning began in June, with fire breaks established around 21 outstations, key infrastructure and sacred sites. This was followed by ground and aerial burning across the management area, which continued into mid-August due to the extended wet conditions. Despite the seasonal challenges, rangers completed over 6,000 kilometres of ground burning and more than 12,000 kilometres by air.

In the later dry season, rangers responded to multiple wildfires across the southeast catchment, with major efforts in the Parson Range, Dhipirri and Pardayparday areas. Teams from Malnyangarnak, Dhupuwamirri and Donydji led fire suppression efforts, supported by Gurruwiling Rangers. These efforts became an important training ground, where experienced rangers mentored newer staff in remote conditions and complex fire response.

The season also saw a deepening of ASRAC's integrated approach to cultural and ecological fire. Traditional fire knowledge was actively passed on during family camps at Malnyangarnak and Djilpin, where elders demonstrated the use of fire to hunt for long-necked turtles and manage bush foods. Women rangers (miyalk) played a central role, joining suppression teams in remote areas and leading cultural burning activities – strengthening their visibility and leadership across the program.

Young people also participated through ASRAC's strong Learning on Country program. In Ramingining, students joined rangers to learn about fire tools, planning, and safety. This hands-on education is helping build the next generation of rangers while reinforcing cultural knowledge within school settings.

A standout moment for many was the Balpara Camp at Gulbuwanga, where Wagilak and Ritharrngu Traditional Owners assessed fire outcomes and the health of Country.

Right: ASRAC Rangers conducted asset protection burns around 21 outstations, community infrastructure assets and sacred sites in 2024. Photo © ASRAC.

Below: This year rangers continued to mentor secondary students from Ramingining School in all aspects of the fire program, through the successful Learning on Country program. Photo © ASRAC.

Rangers, elders and families walked Country together, harvesting sugarbag and yam (key fire indicators for the region) and reflecting on how fire management is tracking against ASRAC's Healthy Country goals.

Throughout the season, rangers were supported with formal training in aerial ignition and mapping, alongside informal one-on-one coaching in fire suppression, safety protocols and equipment use. The importance of empowering local Aboriginal rangers to lead fire management on their own Country was a key message shared by ASRAC Director Dr Otto Campion in his presentation at the 2024 Savanna Fire Forum in Darwin. He spoke about the long-term value of cultural fire in caring for Country, strengthening communities, and supporting Landowner-led decision-making.

As the program continues to grow, ASRAC remains focused on its community-led model, where fire is not only a land management tool but a way to pass on knowledge, build skills and support Landowner aspirations. With stronger miyalk leadership, new partnerships, and growing involvement from youth and elders alike, ASRAC's fire program continues to deepen its impact across Country.

Bawinanga Djelk Rangers

CALFA & WALFA projects

Left: Rangers take a well-deserved break during a wildfire suppression campaign in the Djelk IPA. Photo © Bawinanga Djelk.

Above: Bawinanga Djelk Rangers worked with residents of several homeland communities to collaboratively conduct early season burns and prepare for the wildfire season. Photo © Bawinanga Djelk.

Djelk Rangers, based in Maningrida, manage fire across the Djelk Indigenous Protected Area (IPA) under the Bawinanga Homelands Aboriginal Corporation. Their work supports nearly 20 homelands, using fire to protect infrastructure, support culture, and manage remote Country.

The 2024 season began with extensive consultation, confirming strong Traditional Owner support. Over April and May, rangers travelled more than 2,500 kilometres to speak with over 100 Traditional Owners and Djungkay across communities from Maningrida to Beswick, Batchelor and Darwin. These discussions guided early planning, helping identify high-priority burn lines and areas needing asset protection. Early burning efforts included weed control, ground burning and aerial operations. Rangers completed 111 hours of on ground burning across 1,500 kilometres of track network and delivered aerial burns across more than 11,000 kilometres once curing conditions improved.

The later part of the season saw Djelk respond to significant wildfire activity. Between August and November, rangers responded to 19 wildfires across the IPA, contributing 866 hours of suppression work across 34 days. Their fast and coordinated responses, including seven helicopter-supported operations and the involvement of 10 Traditional Owners, were key to preventing widespread impact. The team also collaborated with Warddeken Rangers on a fire along the western boundary and supported ASRAC in a late-season burn to the east, reinforcing effective cross-boundary partnerships.

This response was backed by focused training. Rangers took part in fire mapping and aerial ignition workshops, including a hands-on gap-filling session. When a nearby wildfire broke out mid-training, crews shifted immediately to response mode.

The team also upgraded safety and suppression gear, including blowers, flame-retardant uniforms, hydration packs and vehicle-mounted flame throwers – strengthening their ability to operate safely across rough terrain.

Looking ahead, Djelk hopes to expand asset protection efforts to include cultural sites, and keep building capacity through stronger ground burning and on Country leadership.

Left: Jawoyn Rangers welcome ALFA and other rangers from across Arnhem Land at the end of year fire meeting at Nitmiluk. Photo © Stephanie King.

Below: Many Jawoyn Rangers, including a cohort of women, completed ALFA's aerial bombardier training in 2024. Photo © Stephanie King.

Jawoyn Association Aboriginal Corporation

WALFA project

JAWOYN ASSOCIATION
SHARING OUR COUNTRY

Spanning more than 7,400 km² of Jawoyn Country, the Jawoyn Rangers' fire program continues to grow in scale and complexity – delivering carbon abatement, protecting cultural and ecological values, and supporting access and livelihoods across a vast and diverse region.

Planning for the 2024 season began with on Country community meetings at Barunga, Beswick, Manyallaluk, Kybrook, Werenbun and Katherine. Senior rangers played a stronger role in shaping the year's strategy – an important shift toward locally led decision-making.

Prescribed burning ran from April through July, with operations combining over 90 hours of helicopter time and nearly 160,000 incendiaries deployed across key areas on Jawoyn Country. Roadside and asset protection burning was carried out along main access roads and cultural areas near Manyallaluk, Barunga and Beswick, supporting hunting, fishing and movement across Country and protecting key sites.

The most demanding part of the season came in the later months with lightning ignitions and dry winds driving wildfire activity across the region. Between August and November, rangers responded to a large number of fires, contributing 226 hours of helicopter time and deploying ground crews to Waterhouse, Conway's, the Kakadu boundary, Nitmiluk, Beswick and Manyallaluk. Suppression was challenging, but crews were well-prepared and responsive, often containing them within days and limiting the spread.

Training and knowledge exchange remained a strong focus in 2024. Rangers completed aerial burning and helicopter safety accreditation through ALFA, alongside first aid training. They also supported younger rangers and community to learn about fire on Country with culture camps run in June and July. Participation in events such as the ALFA fire meetings, the 2024 Savanna Fire Forum and the fire mapping camp at Bawurrrpunta further strengthened operational capability and regional connection.

The season tested the team's coordination and endurance, but also reinforced the importance of fast response, local knowledge and strong Traditional Owner involvement. Looking towards next season, Jawoyn Rangers are working to improve internal systems for fire consultations, data capture and reporting. Continued investment in developing satellite ranger bases remains a key priority – supporting their ability to mobilise quickly and continue delivering fire management that is grounded in local knowledge of Country.

Mimal Land Management

CALFA & WALFA projects

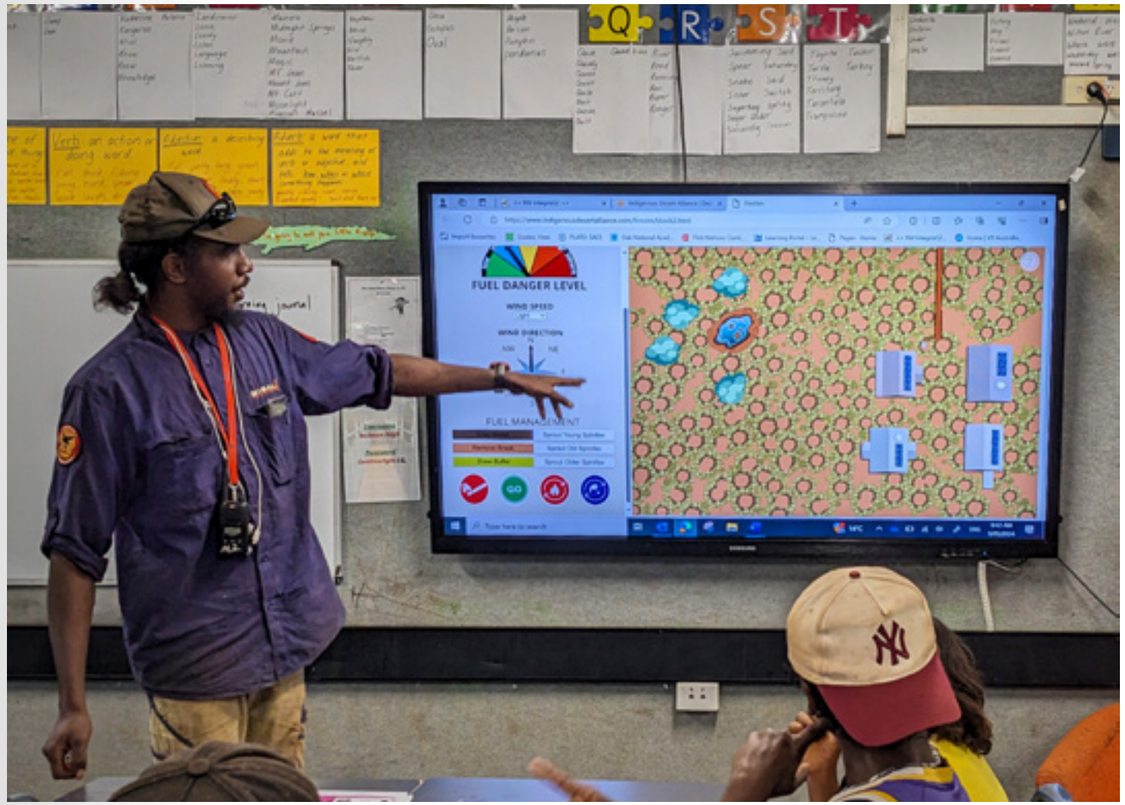
Mimal Rangers manage fire across 1.8 million hectares of central Arnhem Land, working across the traditional estates of the Dalabon, Rembarrnga and Mayali peoples. Based in Weemol, the ranger team plans and delivers large-scale fire operations each year – bringing together local knowledge of their rangers, Landowner input and coordinated ground and aerial burning. In 2024, that meant moving quickly through a shortened early season by updating burn lines, placing protective breaks, and getting fire on the ground before the weather turned.

As the wet season eased, Mimal Rangers hit the road to begin pre-season fire consultations – travelling between communities to sit down with Landowners and map out plans for the year ahead. Nearly 100 Traditional Owners were engaged across Bulman-Weemol, Beswick, Barunga, Manyallaluk, Mataranka and Ngukurr. Consultations in several communities, including Jabiru, Gunbalanya and Gapuwiyak, were disrupted by Cyclone Megan and will be prioritised in 2025.

The season itself was shaped by an extended wet followed by fast-curing grass across the landscape. With less time than usual for early burning, rangers moved quickly, carrying out operations across priority areas and contributing more than 3,000 hours of on ground and aerial fire work. Conditions tightened toward the end of the season, with attempts to close off unburnt areas during the final aerial round requiring extra effort to bring under control.

Ground-based efforts also focused on fire breaks along roads and access tracks – known hotspots for late-season ignitions caused by lightning and people travelling through Country. These strategic burns were critical to reducing risk to surrounding homelands and infrastructure. Meanwhile, the ranger team continued its gamba grass control program – carrying out weed surveys, treating priority sites, and tracking new infestations. With its extreme fuel load and rapid growth, gamba poses one of the most serious threats to both cultural values and the carbon economy. High-intensity burns undermine abatement, and gamba control is now central to maintaining the integrity of the fire program across Mimal Country.

After maintaining over 54 per cent of unburnt Country of this season, Mimal Rangers are now focused on strengthening how fire is managed across areas of ecological and cultural importance. This includes improving late season response systems and developing better community notification processes ensuring that people, particularly those with health conditions, are informed and included in planned burns.



Above: Rangers give a demonstration of a new fire response software to Bulman schoolkids as part of the Learning on Country program. Photo © Mimal.

Right: Mimal rangers travelled to many communities across Arnhem Land to consult with Traditional Owners for preseason fire planning. Photo © Mimal.

Yugul Mangi and Numbulwar Numburindi Rangers

SEALFA & SEALFA2 projects

Left and above: Yugul Mangi and Numbulwar Numburindi Rangers spent almost 155 hours undertaking aerial burning in the 2024 early dry season. Photo © Northern Land Council.

The South East Arnhem Land Indigenous Protected Area (SEAL IPA), jointly managed by the Yugul Mangi and Numbulwar Numburindi Rangers under the Northern Land Council, covers more than 18,000 km² on the western edge of the Gulf of Carpentaria. Fire management remains a central focus of the rangers' work, supporting cultural practice, ecosystem health, and carbon income generation.

Planning for the 2024 fire season began in February with fire history analysis and consultations that guided burn lines, asset protection priorities and Traditional Owner involvement. Burn plans were shaped collaboratively with rangers and Landowners, including drawing aerial ignition lines directly on maps and identifying key areas for protection or targeted burning.

Early dry season burns ran from late May to August, with a combination of ground and aerial operations. Rangers created protective fire breaks around 22 outstations and several remote infrastructure sites, using a mix of on-foot and vehicle-based burning. Although extended rains and slow curing delayed some aerial operations, rangers adapted to the seasonal conditions, burning 30 per cent of the fire project area and securing fire boundaries across the IPA.

A feature of the 2024 season was the active participation of Traditional Owners in operations. Several IPA committee members, including first-time flyers, joined rangers on aerial burns. One Traditional Owner enjoyed the flight so much he asked to join again and enquired about future jobs with the ranger team. Traditional Owners also used the opportunity to visit culturally significant sites on Country, where markers from past gatherings are still visible – demonstrating how fire operations are also important in supporting ongoing access and cultural connection to Country.

Women rangers contributed across the fire season, with planning now underway to formalise a new SEAL IPA Women and Youth Coordinator role. This move, endorsed at the October IPA meeting, aims to strengthen women's leadership and ensure inclusive participation in the program into the future.

Rangers also worked with the Ngukurr Language Centre to translate fire safety messages into Kriol and engaged Learning on Country students in discussions about how 'right way fire' helps protect Country, reduce emissions, and bring benefits through carbon credits. These sessions used locally relevant videos and examples to connect young people to the science and culture behind savanna burning.

Looking to 2025, SEAL Rangers plan to support greater involvement of women Traditional Owners in aerial and ground burning, maintain strong engagement with communities, and continue mentoring young people into the fire program.

Warddeken Land Management

WALFA project

In 2024, Warddeken Rangers continued to use fire strategically to protect high-value areas across the stone country of western Arnhem Land. Their work focused on safeguarding rainforest pockets, rock art sites and other places of deep cultural and ecological significance within the Warddeken Indigenous Protected Area.

In the early months of the year, while the Country dried, Warddeken consulted more than 120 Traditional Owners across communities and outstations surrounding the IPA. These conversations informed the year's strategy, helping rangers prioritise areas that held both high fire risk and deep cultural or ecological value.

Burning began soon after, with over 1,800 kilometres of ground burning and nearly 10,000 kilometres of aerial lines completed before July. Efforts focused on known problem areas, strengthening protection along IPA boundaries, and prioritising early burns in places of high-value cultural and environmental assets. Whether on foot or by helicopter, each burn was shaped by careful assessment, with early action playing a critical role in reducing late-season risk.

One of the season's defining efforts was the protection of 26 Anbinik rainforest isolates – cool, shaded monsoon forest pockets that are vital to biodiversity and especially vulnerable to wildfire. Rangers protected these sites using mineral earth firebreaks and targeted early burning, often combining this with on Country training for younger rangers. The same methods were applied to safeguard more than 30 significant rock art sites, where early season burns reduced fuel loads and protected shelters in estates like Makkalarl and Djordi. In many cases, cultural and ecological protection overlapped – reinforcing the shared logic of managing fire with care.

By the time late dry season fires began in September, rangers had already assessed the IPA and identified the areas most at risk. Fires sparked by dry lightning were tackled across the region, with ten wildfires suppressed by rangers working from Kabulwarnamyo, Manmoyi and Mamadawerre. A total of 540 personnel hours and 45 hours of helicopter time were dedicated to the response, including cross-boundary support to Djelk, Jawoyn and Kakadu Rangers.

Alongside operations, Warddeken built internal capacity by formalising risk management processes, expanding the use of fire data tools, and providing aerial and suppression training for rangers. A 13-day bushwalk across stone country brought fire skills and cultural learning together – offering rangers of all ages a chance to practice on ground burning in the places they are connected to.

Across the season, Warddeken focused on protection through early action, careful planning and burns that defended rainforests, rock art and cultural connection. In 2025, they plan to build on this work by strengthening links between fire, culture and ecology, and expanding ranger training across the IPA.

Right: A team of Warddeken daluk (women) rangers patrols a fire break. Photo © Warddeken.

Below left and right: Warddeken have been actively managing and protecting remnant Anbinik *(Allosyncarpia ternata)* forests for more than a decade. Rangers install mineral earth breaks around entire stands of forest and back burn from these breaks to create a barrier for late dry season wildfires. Photo © Warddeken.

Yirralka Rangers

NEALFA project

Left: This year the majority of Yirralka's aerial burning operations were conducted entirely by rangers and Traditional Owners. Photo © Yirralka.

Above left and right: Yirralka Rangers spent more than 80 hours in the helicopter undertaking strategic aerial burning, along with 14 days of on ground burning, across the 2024 early dry season. Photo credits © Yirralka.

Yolŋu knowledge continues to guide fire management across the Laynhapuy Indigenous Protected Area, where Yirralka Rangers delivered a season defined by early action, careful planning and strong local leadership – resulting in no wildfire suppression work required for 2024.

Planning began early, with rangers consulting more than 30 Traditional Owners across 14 homelands and meeting with the Ward Mala governing body to set fire priorities. These discussions highlighted areas where burning was encouraged, as well as places that needed to be left unburnt due to cultural reasons or seasonal conditions.

Ground burning began in June, focused on defending bores, power stations and community infrastructure. Operations were carried out in 19 homelands and included collaborative burns with Dhimurru Rangers and Mutjung Rangers. Roadside and Country burns continued through to mid-August, with a strong focus along the Central Arnhem Road – a known ignition point for late-season wildfires.

The aerial burning program ran across three deployments between July and August, covering 6,329 kilometres of fire lines over 81.5 hours – an increase from planned hours due to weather-related ignition challenges early in the season. In total, 19 rangers and Traditional Owners took part in helicopter operations, deploying incendiaries and building skills for future leadership. As the landscape dried, later missions achieved stronger results, and aerial burning helped create a resilient mosaic to buffer homelands and ecosystems from late dry season fire.

Strong early burning, good coordination and favourable late weather meant suppression work was not needed. This marked a significant operational success and allowed the team to focus on building knowledge through activities like aerial incendiary and mapping workshops, hands-on APB experience for ranger trainees, and a collaborative research project with Macquarie University monitoring wankurra (northern brown bandicoot) response to fire.

Across the season, Yirralka focused on early intervention, local leadership and fire management grounded in Yolŋu knowledge. In 2025, they plan to build on this work through more cultural fire events, post-burn consultation, improved training, and deeper integration of ecological insight into seasonal fire planning.

Healthy fire regimes support Country to stay healthy. Photo © Bawinanga Djelk.

Financial Statements
For the Year Ended 30 June 2024

Statement of Profit or Loss and Other Comprehensive Income

	2024 $	2023 $
Revenue	26,174,409	27,476,739
Other income	883,376	244,052
Contract exit fees	-	(2,760,000)
Hire fees	(26,084)	(38,788)
Depreciation and amortisation expense	(84,585)	(39,280)
Employee benefits expense	(655,650)	(467,235)
Licenses and fees	(688,129)	(489,427)
Other expenses	(1,214,602)	(1,659,325)
Subcontracting costs	(5,958,862)	(6,903,925)
Grant funding	(13,179,820)	(14,146,296)
Surplus for the year	5,250,053	1,216,515
Other comprehensive income for the year	-	-
Total comprehensive income for the year	5,250,053	1,216,515

Statement of Financial Position

	2024 $	2023 $
Assets		
Current assets		
Cash and cash equivalents	12,557,545	5,489,006
Trade and other receivables	2,397,865	1,932,820
Total current assets	14,955,410	7,421,826
Non-current assets		
Plant and equipment	373,222	269,915
Total non-current assets	373,222	269,915
Total assets	15,328,632	7,691,741
Liabilities		
Current liabilities		
Trade and other payables	4,465,162	2,194,060
Employee benefits	127,291	94,950
Other liabilities	1,443,964	1,360,569
Total current liabilities	6,036,417	3,649,579
Total liabilities	6,036,417	3,649,579
Net assets	9,292,215	4,042,162
Equity		
Accumulated surplus	9,292,215	4,042,162
Total equity	9,292,215	4,042,162

Directors' Declaration

In accordance with a resolution of the Board of ALFA (NT) Limited ("the Company"), the Directors of the Company declare that, in their opinion:

1. The financial statements and notes, as set out on pages 5 to 17, satisfy the requirements of the *Australian Charities and Not-for-profits Commission Act 2012* and:
   (a) comply with Australian Accounting Standards – Simplified Disclosures applicable to the Company; and
   (b) give a true and fair view of the financial position of the Company as at 30 June 2024 and of its performance for the year ended on that date.
2. There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

Signed in accordance with subsection 60.15(2) of the *Australian Charities and Not-for-profits Commission Regulations 2022*.

Director .....

Director .....

Dated this 17th day of September 2024

Independent Audit Report to the members of ALFA (NT) Limited

Report on the Audit of the Financial Report

Opinion
We have audited the financial report of ALFA (NT} Limited ("the Company"), which comprises the statement of financial position as at 30 June 2024, the statement of profit or loss and other comprehensive income, the statement of changes in equity and the statement of cash flows for the year then ended, and notes to the financial statements, including a summary of material accounting policy information and the directors' declaration.

In our opinion, the accompanying financial report of the Company is in accordance with the *Australian Charities and Not-for-profit Commission Act 2012* ("the ACNC Act"), including:
(i) giving a true and fair view of the Company's financial position as at 30 June 2024 and of its financial performance for the year ended; and
(ii) complying with *Australian Accounting Standards – AASB 1060: General Purpose Financial Statements - Simplified Disclosures for For-Profit and Not-for-Profit Tier 2 Entities and Division 60 of the Australian Charities and Not-for-profits Commission Regulations 2022*.

Basis for Opinion
We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of our report. We are independent of the Company in accordance with the auditor independence requirements of the ACNC Act and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants (including Independence Standards)* ("the Code") that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Information Other than the Financial Report and Auditor's Report Thereon
The Directors are responsible for the other information. The other information comprises the information included in the Company's board report for the year ended 30 June 2024, but does not include the financial report and our auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Report
The Directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with *Australian Accounting Standards – AASB 1060: General Purpose Financial Statements - Simplified Disclosures for For-Profit and Not-for-Profit Tier 2 Entities* and the ACNC Act and for such internal control as the Directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the Directors are responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report
Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:
— Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
— Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
— Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.
— Conclude on the appropriateness of the Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
— Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Perks Audit PJ Hill

PERKS AUDIT PTY LTD
8/81 Flinders Street
Adelaide
South Australia 5000

PETER J HILL
Director
Registered Company
Auditor, 72701

Dated this 17th day of September 2024

A low intensity early dry season fire burns in savannah woodland – the dominant vegetation type across Arnhem Land.
Photo © David Hancock.

“We use fire for many reasons: not only for conservation and management, but also as a healing process for land, for people, for native plants and animals. Fire is a tool that we have used from the beginning, from the deep past until today.”

Dean Yibarbuk, Traditional Owner

ALFA
Arnhem Land
Fire Abatement