



Investing in people and nature:

Strengthening conservation outcomes on Queensland private land.



Aerial river, Gulf of Carpentaria.
Photo credit: Kerry Trapnell

Executive Summary

With exceptional diversity in its landscapes and wildlife, Queensland has long had a deserved reputation as a place rich in both nature and nature-based experiences.

Queensland has more plant and animal species than any other state or territory in Australia. In fact, if Queensland was its own country, it would be one of the most species rich in the world. It has a landscape that varies dramatically from the tropical savannas of Cape York to the Simpson Desert, the rivers and floodplains of the Channel Country to the spectacular rainforests of the Wet Tropics.

The extraordinary diversity of our species and landscapes means Queensland carries an immense responsibility when it comes to nature conservation. Unfortunately, Queensland is failing to protect these natural values for the future: a recent Queensland Government report found that 955 species are threatened with extinction in the state, the second-highest number in the country.

Queensland also has the lowest percentage of protected areas of any state or territory, with only 8 percent of the state protected. In contrast, Western Australia has protected 23 percent of its land, the Northern Territory 25 percent and South Australia 30 percent.

Well-managed protected areas are proven to be one of the best ways to safeguard nature. They provide a generous return on public investment by supporting tourism, public health, recreation benefits and other ecosystem services like clean air and water.

Protected areas on private land have a vital role to play in conserving Queensland's natural heritage. More than 85 percent of land in Queensland is privately owned or managed, with many important wildlife habitats found only on freehold or leasehold land.

The Queensland Nature Refuges program is a voluntary conservation program for private landholders interested in conserving and restoring conservation values on their land.

More than 500 landholders have chosen to dedicate land for conservation, to ensure the protection of natural values for future generations.



Over the past decade, more than 500 landholders have chosen to dedicate part or all their land for conservation, to ensure the protection of natural values for future generations.

These landholders range from owners of small coastal lifestyle properties to pastoralists on large grazing stations, conservancies, for-profit corporations and Indigenous Traditional Owners.

Landholders, and the dedicated program officers who have worked to support them in establishing their refuges, have successfully grown the Nature Refuges program into the largest private protected area network in the country by area, covering a total area of more than 4.4 million hectares across the state.



Land management in the wet tropics. Photo Credit: Kerry Trapnell

Nature Refuge declarations are registered on title and commit landholders to the future care and protection of important wildlife and natural features on their land. These are significant responsibilities both in terms of time and money needed to deal with threats like weeds, uncontrolled fires and feral pests.

But funding for the program hasn't kept pace with the expansion of the nature refuge network. The system is now stretched to breaking point, placing a significant burden on landholders and impacting the program's ability to protect nature. Long-term under-investment in the program means that many landholders are not able to access support for vital conservation planning, management and monitoring activities on their land.

Investment in protected areas for Queensland is all the more important given the state's global natural significance and alarming rate of species decline.

Over the past five years, the Queensland Government has provided, on average, less than 25 cents per hectare annually to nature refuge landholders to manage their lands for nature, with many landholders receiving no ongoing financial support at all.

Inadequate technical and financial support leaves a significant burden on landholders seeking to protect wildlife habitat and properly manage weeds, fires and feral animals on their nature refuge.

The system is now stretched to breaking point, placing a significant burden on landholders and impacting the program's ability to protect nature.

Inadequate technical and financial support means there is an increasing cost imposed on private landholders seeking to properly manage weeds, fires and feral animals. This can lead to increased risk of failed or insufficient land management as landholders struggle to keep up.

With so many Queenslanders already committed to caring for nature on their land, increased investment in the program would provide support for the continued expansion of the network, enable meaningful and measurable conservation outcomes as well as much needed recognition of the commitment and hard work of nature refuge landholders.

The Queensland Government has committed to establishing a world-class protected area network, but we are far from achieving this vision. By working together, and providing more support to committed landholders, we can chart a course to a more positive future for people and nature in Queensland.

This report is informed by the findings of a recent expert assessment of private protected areas in Queensland¹ and identifies key recommendations for improvements if we are to establish a world-leading private protected area network.

With the right leadership, policy settings and investment Queensland can continue to grow private protected areas and improve their outcomes for people and nature, allowing the state to lead the way.

Key findings of the independent expert assessment

1. The Nature Refuges program has delivered a significant increase in the area of land dedicated to conservation and is therefore an important component of the Queensland protected area system.
2. It is difficult to determine how effective the nature refuge network is at protecting conservation values because there is no requirement to monitor conservation outcomes on nature refuges.

3. There is very limited technical or financial support available to nature refuge landholders from the Queensland Government after the initial establishment negotiations.
4. Nature refuges contribute to nature conservation in different ways, depending on their size and geographical location:

In coastal and **more intensively populated areas**, nature refuges tend to be smaller. They play an important role in maintaining native vegetation, restoring habitat for threatened species, contributing to feral animal and weed control, and allowing the movement of wildlife across the landscape by forming connected corridors.

In more **remote and Outback areas**, nature refuges tend to be larger. They can complement national parks to support conservation and sustainable land management practices including improved management of fire, weeds and feral animals, protection of waterways and improved stock management.

¹Protected Area Solutions (2018) Nature Refuges in Queensland: Report to the Pew Charitable Trusts and Queensland Trust for Nature, October 2018.



4WDs in the Simpson Desert. Photo Credit: Matt Turner.

Recommendations

Recommendation 1:

To support improved management and monitoring of the existing 4.4 million hectare network of nature refuges, increase the Queensland Government's annual protected area budget by \$24 million (an increase of 10 percent). This funding grows by >\$600,000 for each additional 100,000 hectares of new nature refuges and special wildlife reserves.

Recommendation 2:

Tailor delivery of the Nature Refuges program to reflect the different needs of landholders and landscapes in both settled coastal and agricultural regions and more remote Outback regions.

Recommendation 3

Ensure investment in private protected areas is proportionate to the scale and significance of the conservation values secured, with new investment likely to be directed primarily towards larger nature refuges (>5,000 hectares) to support effective planning, management and monitoring of conservation outcomes at scale.

Benefits for nature and people

Implementing these recommendations will deliver a range of environmental, social and economic benefits for Queensland and help to provide:

- Much needed support for nature refuge landholders to protect and restore wildlife habitat and manage threats like feral animals, noxious weeds and wildfire.
- Continued success in securing nature refuge agreements for properties with high natural values to add to the network.
- A world-class system of private protected areas that are managed and monitored in a way that can deliver conservation outcomes at scale and of global significance.
- Investment in private protected areas that is proportionate to the scale and significance of the conservation values secured.
- Implementation of a consistent, well-designed and user-friendly monitoring and evaluation system to ensure nature refuge landholders are supported in achieving measurable conservation outcomes on their land.
- Establishment of connections with Indigenous ranger groups and other established and competent not-for-profit groups to work in partnership with nature refuge landholders.



Life at Gilberton Station and Nature Refuge, in Queensland's North. Photo Credit: Pete Murray

Quick Facts on Private Protected Areas in Queensland



955

The **species threatened** with extinction in Queensland



8%

The **percentage of Queensland** currently managed as a protected area (the lowest in Australia).



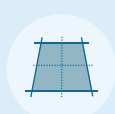
85%

The **percentage of land** in Queensland that's privately owned or managed.



500+

The **number of landholders** who have chosen to dedicate part or all their land for conservation.



4.4 million

The **number of hectares** they protect between them.



25¢

The **average annual amount per hectare** provided to nature refuge landholders over the last five years to manage their land for conservation.



Queensland is the **most biodiverse** state in Australia.



Landholders have successfully grown the Nature Refuges program into the **largest private protected area network** in the country by area.



Many of these landholders receive **no ongoing support from the Queensland Government** to manage their land for conservation.



Protected areas provide habitat for native animals like Koalas.

Queensland's Nature Refuges Program

Nature refuges are voluntary agreements between the state government and private landholders to protect the natural values of privately-held freehold or leasehold land and are established under the *Nature Conservation Act 1992*.

By area, the Nature Refuges program is the largest private protected area network in Australia and plays a crucial role in protecting habitat for threatened species in Queensland. This is particularly important given the state's relatively low percentage of national parks and other protected areas.

The process for declaring a nature refuge

A nature refuge declaration is an agreement between a landholder and the Environment Minister which is registered on the land title. These agreements are tailored to suit the management needs of the property, the needs of the landholder and the desired outcomes of the Government.

The agreement is binding and generally permanent, although some agreements are made for a fixed time period. If the property changes hands, the nature refuges declaration passes with the land, providing enduring protection for nature. Nature refuges can only be revoked with the consent of the Environment Minister.

Contribution of nature refuges to Queensland's protected area network

In September 2018, there were 514 nature refuges covering a total area of more than 4.4 million hectares (Figure 1). The area of nature refuges has grown significantly over the last decade (Figure 2), and they now comprise 30 percent of the area of the Queensland protected area estate.

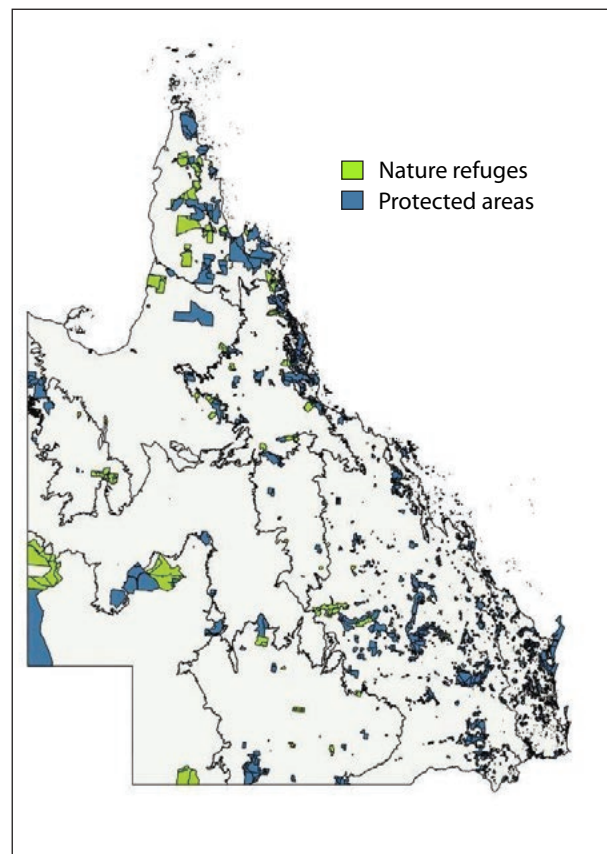


Figure one: Distribution of nature refuges and other protected areas in Queensland

Source: Map prepared by Protected Areas Solutions, data provided by the Department of Environment and Science, August 2018

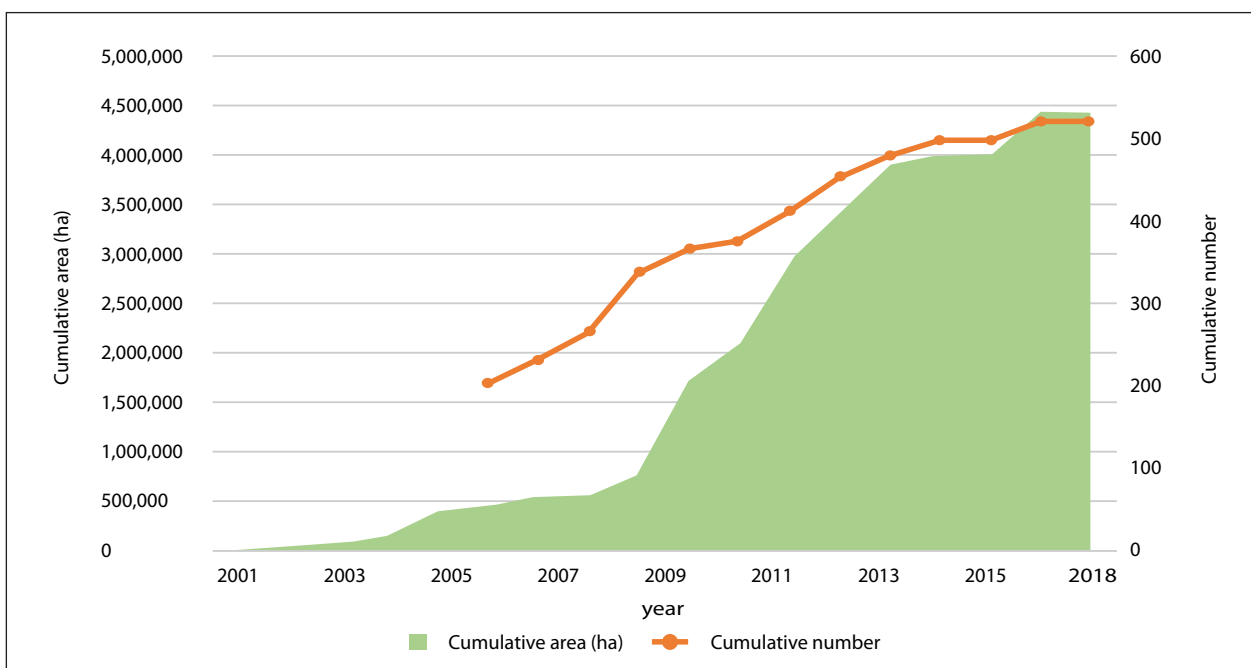


Figure two: Cumulative numbers and area of nature refuges.

Source: Protected Area Solutions, DES Nature Refuge Database

Conservation values protected by nature refuges

Nature refuges protect important habitat for a diverse range of native plants and animals, including more than 500 species threatened with extinction in Queensland. Many nature refuges protect multiple plant and animal species reflecting Queensland's global status as a hotspot for biological diversity. For example:

- 49 nature refuges protect quolls, including the endangered Spotted-Tail Quoll (*Dasyurus maculatus*)
- 72 nature refuges protect the endangered Southern Cassowary (*Casuarius casuarius johnsonii*)
- 129 nature refuges protect important habitat for Koalas (*Phascolarctos cinereus*)
- 73 nature refuges protect tree frogs, including the critically endangered Armoured Mist frog (*Litoria lorica*)
- 12 nature refuges protect cycads, including the endangered *Cycas megacarpa*.
- 16 nature refuges protect the vulnerable Brush-tailed Rock-Wallaby (*Petrogale penicillate*).

In addition to protecting our unique plant and animal species, nature refuges are home to a diverse range of landscape features and regional ecosystems,

Nature refuges protect important habitat for a diverse range of native plants and animals, including more than 500 species threatened with extinction in Queensland

including winding rivers and creeks, abundant wetlands, floodplains and springs, forests and woodlands, canyons and rugged escarpments. These landscapes are rich in cultural heritage and are deeply valued by the Indigenous and non-Indigenous people that call them home.

Nature refuges play an important role in conserving Queensland's natural and cultural heritage; provide social and economic benefits to the wider community, including the tourism industry; and are a relaxing place to unwind from the pressures of everyday life. They are an important part of Queensland's immensely valuable natural capital assets.



Clockwise from top left: Thorny Devil (Photo: Angus Emmott), Cassowary, Palm Cockatoo, Brush-Tailed Wallaby.

Incentives and stewardship support at Mt Mellum Nature Refuge



Property and size: Two blocks on separate titles, totalling 95 hectares.

Size of nature refuge: Two separate nature refuges at 40 hectares each.

Land use: 80 hectares managed for conservation, approximately 7 hectares for agriculture and approximately 8 hectares for residence and potential grazing.

Conservation values: Mt Mellum Nature Refuge has a large range of different ecosystems and forms part of a larger protected area network. It is home to a range of threatened animals including the Greater Glider, Koala, Richmond Birdwing Butterfly, Giant Barred Frog as well as several endangered plant species.

Registration history: Process Commenced in 2013

When Ian and Christine McMaster found their Mt Mellum property in 2010, it was the diversity of the landscape and its wildlife that they fell for.

The property, approximately 5 kilometres northwest of the town of Beerwah and at the southern end of the Blackall Range, is home to a large range of threatened animal species, including

the Greater Glider, Koala, Richmond Birdwing Butterfly, Giant Barred Frog as well as several endangered plant species.

“At the time, we were looking for an acreage where we could indulge our passion for growing Australian native plants,” Ian said. “This 60-hectare block was much larger than we were looking for, but we fell in love with its diversity and the splendour of its sections of untouched rainforest.”

The couple registered with Land for Wildlife (LFW) and began to discover just how much diversity of plant and animal life there was across their new property. They decided that it was important to

“There is no doubt that without the guarantee of ongoing funding and assistance from our council through Land for Wildlife, we would not have taken on our second nature refuge.”



Ian and Christine McMaster at Mount Mellum Nature Refuge on the Sunshine Coast. *Photo credit: Queensland Trust For Nature*

“We have friends who live in other council areas who have much less support, and for whom the task is much harder.”

preserve its beauty for posterity and chose to register it as a nature refuge.

“While we were still going through the registration process, the property next door came onto the market,” Ian explained. “It had more patches of rainforest and also a number of huge old eucalypts that provided homes for possums, owls, and a range of gliders. It also had significantly more weed infestation than our block. We really wanted to preserve this environment, but we were nervous about the work involved. In the end, the ongoing support that Sunshine Coast Regional Council provides through the LfW program convinced us that we could manage the additional workload, so we bought it and sought registration as a nature refuge for that property too.”

Ian and Christine have been able to access funding through Nature Refuge grants program, which has allowed them to conduct a controlled burn which was identified as a priority within their management plan.

However, Ian points out that the bulk of the support they’ve had financially and on the ground has come from the Sunshine Coast Regional Council through its LfW program.

“There is no doubt that without the guarantee of ongoing funding and assistance through LfW, we would not have taken on our second nature refuge. The other really important component is having access to people who are as committed to the natural environment as we are, are more knowledgeable, and who are there to help answer the hard questions when the load seems to be too heavy.”

The McMasters feel that a more uniform level of support for nature refuges across Queensland would be beneficial. They’ve had the support required to undertake the management required to maintain the conservation values of their land, but only through the support offered by their local Council.

“We have friends who live in other council areas who have much less support, and for whom the task is much harder.”

Diversity in the ownership and size of nature refuges

One of the strengths of the Nature Refuges program is the versatility and flexibility of nature refuge agreements. No two agreements are the same – they’re tailored to incorporate the needs of specific properties and landholders, as well as the government.

As a result, a diverse range of landholders have taken up the opportunity to enter the program. Nature refuge landholders include large companies, conservancies, local government authorities, indigenous organisations, family grazing businesses and individuals on lifestyle blocks.

Nature refuges also range widely in size. Nearly 80 percent of nature refuges are less than 1,000 hectares and together account for only 1 percent of the total area protected. Larger refuges (more than 10,000 hectares) account for 96 percent of the total area (Table 1).

Most large nature refuges are located in remote regions in the west and north of the state, while small nature refuges protecting important native habitats are found in more densely settled areas nearer to the coast.

Table one: Cumulative numbers and area of nature refuges.

Source: Prepared by Protected Area Solutions, data provided by Department of Environment and Science.

Size class (ha)	Number of nature refuges	percent of nature refuges	Total area (ha)	percent of total area
>100 000	14	3 %	2 984 098	68 %
10 000 -100 000	32	6 %	1 163 065	26 %
1 000 -10 000	66	13 %	216 290	5 %
100 -1 000	104	20 %	34 395	1 %
10 -100	223	42 %	9 050	0 %
<10	89	17 %	422	0 %
Total	528	100 %	4 407 320	100 %

Protecting threatened species at Pullen Pullen Reserve, Western Queensland



Property size: 56,000 hectares

Nature Refuge size: 56,000 hectares

Land use: Conservation

Conservation values: Habitat of the endangered Night Parrot

Registration history: Established in 2016

Pullen Pullen Reserve was established in 2016 as a sanctuary to protect what was, at the time, the only known population of the endangered Night Parrot in the world. The 2013 rediscovery of the Night Parrot in Queensland was described as a 'once-in-a-generation' find and quick action was needed to secure the bird's habitat.

The Queensland Government approved the transfer of the former pastoral lease property where the bird was discovered to Bush Heritage, recognising the national and international significance of this western Queensland habitat for the survival of the Night Parrot.

Bush Heritage mobilised private philanthropic support by establishing the Pullen Pullen Founders Circle, raising vital funds towards the purchase price of the property. The Queensland Government, through their Nature Assist

program, also contributed \$440,000 towards securing the land.

At the time of the property's purchase, Chief Executive of Bush Heritage Gerard O'Neill described the purchase of Pullen Pullen as a one-off opportunity to recover a species that had disappeared for almost 100 years.

"Together we are working hard to conserve [the Night Parrot's] habitat and protect it from threats such as predation by cats and foxes," Gerard said.

"A species as rare as the Night Parrot also faces a very considerable risk from poaching, and we have installed satellite cameras to catch poachers as part of our conservation efforts.

"The Queensland Government's funding will support a range of conservation measures at Pullen Pullen Reserve, including protection against feral animals, fencing to prevent stock incursions, and fire management.

"The funding will also support our anti-poaching surveillance technology and help us to monitor the night parrot's behaviour to increase the world's limited knowledge of this rediscovered species."

Pullen Pullen Reserve's landscape features sandstone, claystone and siltstone plateaus (or

Dr Steve Murphy and Rachel Barr undertaking Night Parrot monitoring in 2015 at Pullen Pullen. *Credit: Lyndon Mechielsen*





Night Parrot at Pullen Pullen Reserve.
Credit: Nicholas Leseberg

mesas), skirted by long unburnt spinifex that's important roosting and breeding habitat for Night Parrots.

There are floodplain grasslands running through the centre of the reserve, which provide critical feeding areas for the bird. These productive areas are the key reason the species occurs in this location.

While undertaking urgent action to protect the bird, researchers have also been able to further investigate the population biology and ecology of the species. For example, they discovered that removing cattle from the area led to more availability of seed for the Night Parrot.

They were also able to record the calls at Pullen Pullen, allowing other researchers and bird watchers around Australia to search for the Night Parrot more effectively. This data has resulted in the discovery of a night parrot population in Western Australia.

Management activities at the Pullen Pullen Reserve now include extensive and labour-intensive efforts to manage feral animals, invasive cattle, weeds and fire. Managing feral cats continues to be a major focus in Night Parrot conservation efforts.

Bush Heritage has relied on Pullen Pullen's status as a nature refuge to protect the Night Parrot population. Nature refuge declaration has helped Bush Heritage to celebrate the rediscovery and occurrence of the Night Parrot while protecting the tiny population, which is highly vulnerable to disturbance.

The organisation describes the Nature Refuges program as a good step towards providing protection, but says the Queensland Government's proposed special wildlife reserves (see text box) would benefit Pullen Pullen even more by providing national park-level protection to the reserve and giving Bush Heritage stronger powers to protect the land.

Delivering stronger protection for private protected areas

While nature refuges are a valuable and useful form of protected area, they do not protect land from certain 'extractive' activities – including mining, forestry and other potentially environmentally-damaging practices.

However, these activities will be prohibited in special wildlife reserves, a proposed new class of private protected area currently being considered by the Queensland Parliament.

If passed, the Nature Conservation (Special Wildlife Reserves) and Other Legislation Amendment Bill 2018 will create a level of protection for private land that is equivalent to national park status. Once declared, a special wildlife reserve will be permanent unless revoked by Parliament. These reserves will also require management plans, something not currently required under the nature refuges program.

This Bill will also amend the Lands Act by adding conservation as a recognised management outcome for pastoral leaseholders. This opens the door for land designated as a nature refuge or a special wildlife reserve to be managed primarily for conservation, something not allowed under the existing pastoral lease system which requires pastoralism to remain as the main use of the land.

This is an internationally important step forward in supporting conservation and land management on privately held freehold and leasehold lands across Queensland.

Current investment in the Nature Refuges Program

There are currently two forms of financial assistance offered by the Queensland Government to landholders with nature refuges: NatureAssist and Nature Refuge Landholder Grants.

NatureAssist

NatureAssist provides start-up funding to landholders who have entered into a nature refuge agreement to spend on projects with clear conservation outcomes which enhance the resilience and sustainable management of a property. The types of projects generally funded include:

- reducing stock and feral animal access to environmentally sensitive areas such as vine thickets, watercourses and wetlands to reduce their impact on the landscape;
- stabilising soils, improving water quality or increasing the value of wildlife habitat; and
- improving management practices for noxious weeds, feral animals and fire.

Management activities that are part of day-to-day maintenance or are required by legislation are not eligible for funding.

Nature Refuge Landholder Grants

Nature Refuge Landholder Grants provide up to \$10,000 matched dollar-for-dollar (in cash and/or kind) by the landholder. Works must be completed within six months. The types of activities generally funded include:

- control of weeds to rehabilitate native vegetation areas;
- installation of fencing to restrict/exclude stock from accessing ecologically significant areas;
- development and implementation of fire and feral animal management programs/plans;
- revegetation of degraded areas and establishment of vegetation corridors; and
- activities relevant to the conservation and management of the nature refuge values (e.g. fire access tracks, ecological surveys, off-stream stock watering points, reducing sediment loss, wildlife monitoring, environmental education/interpretive material).

Total Expenditure

Total expenditure on the Nature Refuges program in 2017-2018 was approximately \$4.6million. Over the past five years, only around 23 percent of nature refuges program funding was spent on grants and incentives for landholders, working out at less than 25 cents per hectare annually.

Felicity and Kiarra from Queensland Trust For Nature. *Photo Credit: Caleb McElrea*



Over the past five years, the Queensland Government has provided on average less than **25 cents** per hectare, per year to nature refuge landholders. Many landholders have received **no ongoing financial support** at all.



Many nature refuge landholders have received no ongoing financial support at all.

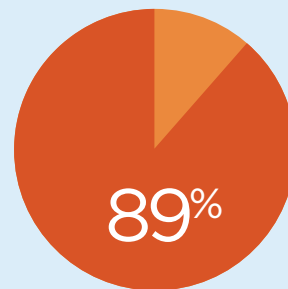
The draft Queensland Protected Areas Strategy (2017) recognised that the level of support provided to nature refuge landholders is “not considered adequate by many landholders” and that “the current range of incentives could be expanded to attract greater participation from private landholders”.

The draft strategy also notes that incentives have been directed to adding additional areas of nature refuges rather than to their ongoing management and that the range of incentives could be expanded to attract greater participation and to better support landholders who already manage their land for conservation.

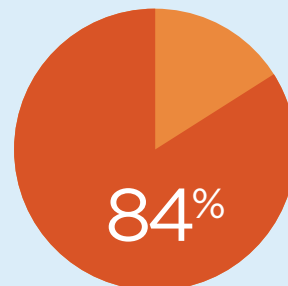
Increased investment and support in the program would provide important opportunities to deliver improved conservation outcomes, recognise the commitment and hard work of nature refuge landholders and involve the community in building Queensland’s protected area network.

Public support for investment in private land conservation

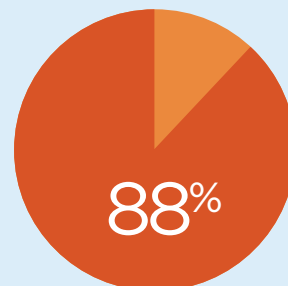
There is strong public support for investment in private land conservation – in November 2017, Galaxy Research found strong support for the following statements:



Private landholders have an important role to play in protecting wildlife habitat



The Queensland Government should provide funding and support to nature refuge landholders to protect wildlife habitat, control feral animals and remove invasive weeds



Providing incentives for people in the Outback to control feral animals and weeds would deliver benefits for all Queenslanders

Caring for country on Talaroo Nature Refuge, North Queensland



Property and size: Talaroo Nature Refuge

Size of nature refuge: 31,023 hectares

Land use: Conservation. Talaroo is managed as an Indigenous Protected Area (IPA).

Conservation Values: Talaroo has significant Aboriginal cultural heritage sites including the site of a massacre now called Memorial Park. Mound hot springs on Talaroo have both significant cultural values for the Ewamian people and conservation significance with rare and endemic aquatic species. Talaroo supports habitat for the Black-Necked Stork, Radjah Shelduck, Australian Bustard, and the Antilopine Wallaroo.

Registration history: 2015

For the Ewamian people, Traditional Owners of country in North Queensland, establishing a nature refuge on their traditional lands has been part of a long journey of conserving its natural and cultural values.

The Ewamian people were initially consulted 'many years ago' about purchasing land. They chose to purchase a property to manage for conservation and cultural purposes - one that also provided economic development opportunities for future generations.

While other properties were considered, Talaroo was chosen because of its conservation values and cultural significance for the Ewamian People.

"The property has the unique Hot Mound Springs and an area previously called Skull Camp - now known as Memorial Park - where a massacre took place in the early 1900s," said Sharon Prior, coordinator of the Ewamian Aboriginal Corporation (EAC).

"There are also many other cultural sites such as scarred trees, native wells, rock art sites and grinding grooves in the waterways."

Talaroo was purchased through funding from the National Reserve System and the Indigenous Land

"The program provides opportunities to not only protect and manage the biodiversity on our land but also to explore and develop sustainable economic opportunities."

The Hot Mound Springs at Talaroo.





*Ewamian Traditional Owners
Dave and Michell on Talaroo
Nature Refuge.*

Corporation. Since 2011, the EAC has received funding for five rangers to manage the Talaroo property through the Queensland Indigenous Land and Sea Rangers program.

A condition of the purchase funding was that there was the declaration of a conservation covenant declared over Talaroo. The Nature Refuge was declared in 2015, a process described as ‘long and complex’ by the Ewamian people.

“However, the benefits of the registration have been clear,” Sharon explained.

“We’ve built a strong network with stakeholders such as Natural Resource Management groups, scientists and other experts and Universities who have engaged with our rangers to conduct biodiversity surveys and research on Talaroo.

“The nature refuge also allows for EAC to develop ventures on the land while still managing it for conservation.”

EAC has not received any funding from the Nature Refuges program for the management of Talaroo. However, strong networks and partnerships built with other organisations have allowed for the successful management of Talaroo station for conservation. Partnerships for the management of Talaroo include funding from Queensland Indigenous Land and Sea Ranger Program for five ranger positions, funding from the Indigenous Protected Area program to develop a plan of management, assistance from scientists and research organisations to inform monitoring of conservation values, and funding from Natural Resource Management bodies to undertake on-ground works such as fire, feral and weed management.

While not in huge numbers, feral pigs do considerable damage to Talaroo’s waterways and dams. Rangers have successfully reduced the threat by erecting exclusion fencing around one dam, with a second now being fenced.

Ventures planned by the EAC for Talaroo include a three-staged tourism project which will include tours of the hot springs, accommodation and a cultural healing centre/festival grounds. The plans have been finalised and funding is being sought. It’s hoped facilities will be open to the public in 2020.

While there’s been little ongoing engagement between EAC and the Department since the nature refuge declaration, no visits by staff and no funding offered, Sharon said they would recommend the Nature Refuges program.

“It’s been a great achievement getting Talaroo gazetted as a nature refuge but I’d like to see more assistance and more mentoring for Indigenous organisations such as ours, and more assistance for ranger programs,” she said.

“Nature refuges are very important for indigenous and non-indigenous people. This is about protecting nature and the environment and looking after our country for future generations.

“The program provides opportunities to not only protect and manage the biodiversity on our land but also to explore and develop sustainable economic opportunities that are consistent with both conservation and cultural values.

“It makes me feel very proud to know that we’re a part of it.”

Independent expert assessment of the Nature Refuges program

Nature refuges are voluntary agreements between the state government and private landholders to protect the natural values of privately-held freehold or leasehold land and are established under the *Nature Conservation Act 1992*.

The Pew Charitable Trusts and Queensland Trust for Nature commissioned expert consultancy Protected Area Solutions to assess the ability of the Nature Refuges program to deliver large-scale, tangible conservation outcomes.

The assessment involved analysing relevant literature and publicly available program-related material, the nature refuge database and other material made available by the Department of Environment and Science. A questionnaire was also distributed to nature refuge landholders and targeted discussions were held with key stakeholders. The assessment drew on the experience and knowledge of the directors of Protected Area Solutions, who have held key roles in conservation and protected area programs in Queensland.

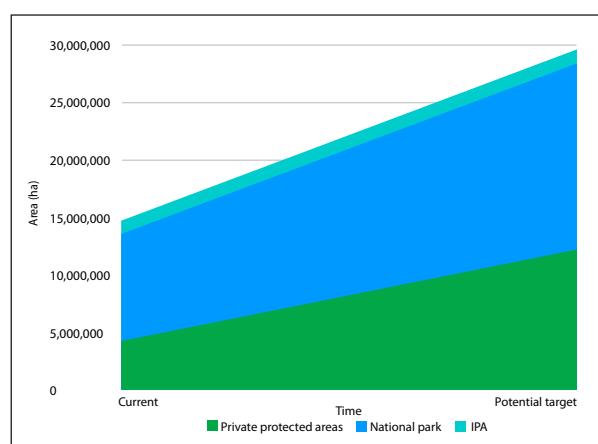
The authors of the review identify the following critical factors for successful private protected area systems: (a) strategic and targeted inclusions; (b) flexibility to meet the needs and aspirations of both landholders and governments; (c) flexible financial incentives; (d) support and partnerships; (e) monitoring, reporting and learning; and (f) tenure security. The current legislative, policy and administrative situation was assessed against each of the critical success features.

Figure three: Suggested growth in national parks, private protected areas (nature refuges and special wildlife reserves) and Indigenous Protected Areas, consistent with Queensland Government's 17 per cent protected area target.

Key findings of the independent expert review:

The Nature Refuges program has delivered a substantial increase in the area of land held under conservation agreement, and as such is an important component of the Queensland protected area system. The proposed new category of special

Overall, the Nature Refuges program is doing well in terms of being very strategic and targeted in securing nature refuge agreements in priority areas.





The French family at Gilberton Station and nature refuge.
Photo credit: Pete Murray

In order for Queensland to make substantial progress towards a comprehensive, adequate and representative protected area system, the total area of land held as nature refuge and special wildlife reserve should be increased to approximately 12.3 million hectares.

Strategic and targeted inclusions and flexibility

In general, landholders are more willing to establish private protected areas when covenants

are negotiated and tailored to suit individual needs, including in relation to the duration of the agreement, and where they recognise seasonal and landscape scale issues.

Overall, the Nature Refuges program is doing well in terms of being very strategic and targeted in securing nature refuge agreements in priority areas. It also provides a relatively good level of flexibility to meet the needs and aspirations of landholders and government.

Financial incentives and support

There is very limited technical or financial support available to nature refuge landholders from Queensland Government sources beyond the initial establishment negotiations. Follow-up assistance may be available from other sources such as local government, natural resource management bodies and conservancies depending on their priorities and available resources.

However, the program is failing to provide enough incentive to encourage landholder participation in establishing and managing private protected areas. It also fails to provide adequate landholder support and a pathway for partnerships with third party or other programs.

There is also an inconsistent level of support across the regions, with Outback locations having very limited support compared to coastal areas, where establishing a nature refuge can provide access

However, the program is failing to provide enough incentive to encourage landholder participation in establishing and managing private protected areas.

wildlife reserve will be a useful improvement given it prohibits 'extractive' activities, including mining, and requires a management plan for each property.

Nature refuges and special wildlife reserves can contribute to nature conservation in different ways depending on their size and geographical location.

In coastal and more intensively populated areas, nature refuges tend to be smaller. They play an important role in maintaining native vegetation, restoring habitat for threatened species, contributing to feral animal and weed control, and allowing the movement of wildlife across the landscape by forming connected corridors.

In more remote and Outback areas, nature refuges tend to be larger. They can complement national parks to support conservation and sustainable land management practices including improved management of fire, weeds and feral animals, protection of waterways and improved stock management.

to program partners, community groups and other programs that provide additional support. This may include access to additional funding, expertise, volunteers and specialist activities, such as revegetation programs and feral animal and weed control.

Many landholders reflected a frustration that there were few if any incentives to enter into nature refuge conservation agreements and a lack of general support and departmental contact. Survey respondents indicated that although over 90 percent had contact with the department following the declaration of their nature refuge, contact has reduced over the years or had only occurred during the initial establishment of the nature refuge.

Tenure security

Nature refuges can be declared over freehold and leasehold land. Under the current provisions of the Land Act, conservation is not allowed to be the primary purpose of a lease. Tenure reform is needed to ensure conservation is a legitimate use.

The Nature Conservation (Special Wildlife Reserves) Bill 2018 currently before the Queensland Parliament clarifies that where a private protected area declaration is made over a Land Act lease, the protected land may be managed for conservation, notwithstanding any contrary provision in the lease. This amendment will clarify beyond doubt that conservation-focused management activities on nature refuges declared over leasehold land are acceptable.

Monitoring, reporting and learning

There is no systematic approach to monitoring and reporting the impact of nature refuges or their contribution to protection of natural and cultural values. As a result, it is difficult to determine how effective the nature refuge network is at protecting conservation values.

Government budget reporting has focused on the number and area of nature refuges. While this performance indicator will have assisted to maintain the Nature Refuges program, it will inevitably lead to more attention being paid to recruiting new participants or increasing the area declared, rather than on the conservation outcomes achieved through declaration.

Landholder perspectives on the Nature Refuges program

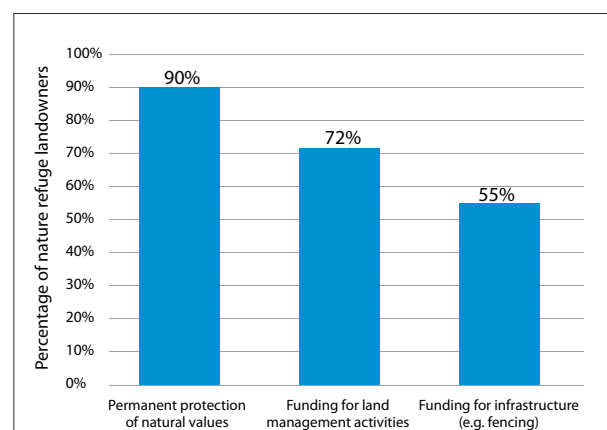
Survey respondents were overwhelmingly positive about nature refuges, emphasising the importance of nature conservation as part of their personal values. Seventy percent indicated that their nature refuge has helped them achieve business goals and aspirations, through promoting nature-based activities (28 percent), potential for carbon abatement/emissions reduction (28 percent), better market advantage (19 percent), and improved resilience to drought (9 percent).

Nearly 90 percent of survey respondents indicated that the key reason they have a nature refuge on their property is to permanently protect the natural values of their land. However, a majority also see nature refuges as a means for accessing funding for land management activities such as weed and feral animal control (72 percent); to access funding for infrastructure such as fencing or moving watering points (55 percent); and to reduce council rates (50 percent). Council rate relief only occurs in some areas, and many comments reflected the desire for this to happen across the state.

Just under 70 percent of survey respondents indicated that they had received support for their nature refuge. The type of assistance included funding (87 percent), physical on-ground support (62 percent), advice (56 percent), help with planning or survey work (34 percent), and provision of materials, for example for fencing (25 percent).

Contact has declined over the years or had only occurred during the initial establishment of the nature refuge. Forty-four percent of respondents received advice about financial assistance; 35 percent have received assistance with planning; 20 percent

Figure four: Three most common reasons for nature refuge landholders to enter into a nature refuge agreement.



have received compliance checks; 20 percent have received assistance with pest management and 17 percent received assistance with plant or animal surveys. 11 percent received no assistance at all.

When asked about the status of the conservation values of their nature refuge, 69 percent of survey recipients said that the conservation values on their property had either significantly improved (44 percent), or slightly improved (25 percent). Nearly 20 percent said the values had stayed the same, and 11 percent thought they had declined. One respondent thought the values had significantly declined.

The main indicators of improvements were fewer weeds (74 percent), increased wildlife (63 percent), increased diversity of native species (59 percent) and improved water quality (15 percent). Respondent comments reflected that much of the evidence is anecdotal, with nearly 87 percent of the respondents citing casual inspections as the basis for their responses. 46 percent of respondents use photo points, and 37 percent use formal monitoring to assess the condition of their properties.

Effective management of protected areas vital to conserve natural values

The active and effective management of protected areas is needed to maintain their natural values over time. Many native species are under pressure from threats that require active management: feral animals, noxious weeds and uncontrolled wildfire.

Increased investment in management of nature refuges will increase their effectiveness as a conservation tool, providing practical opportunities for landholders and partner organisations to maintain and restore local wildlife populations and plant communities.

In addition to its importance as a conservation tool, public investment in active land management provides a range of local economic, social and cultural benefits, including employment opportunities in remote communities and revival of Indigenous land management practices.

Large scale investment in private land conservation in New South Wales

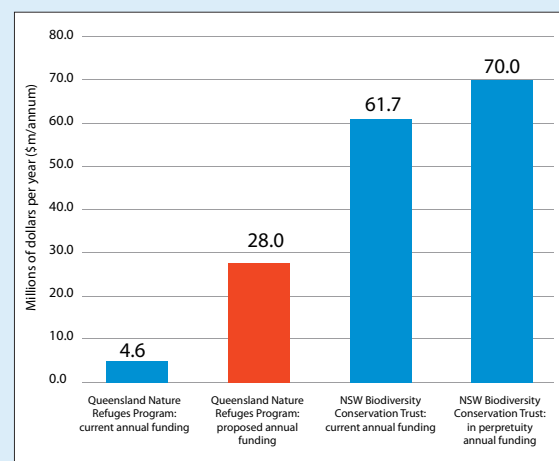
South of the border, the NSW Government is investing \$247 million over the next four years to support private landholders to protect and conserve natural values on their land.

These funds will be delivered by the NSW Biodiversity Conservation Trust, a statutory body established in 2016. The Trust aims to secure conservation agreements with landholders to secure the long-term protection and management of conservation values on private land.

Following the initial four-year investment period, the NSW Biodiversity Conservation Trust will deliver \$70 million per year in perpetuity, a total expenditure of \$1.3 billion over the next twenty years.

Importantly, the Trust will employ regional coordinators and support officers to provide technical advice and assistance to landholders, including regular site visits, telephone support, workshops and assistance with monitoring.

Figure five: Comparison of proposed annual budget for the Queensland Nature Refuges Program (see recommendations below) with the NSW Biodiversity Conservation Trust



Conservation on pastoral lands at North Head Station, North Queensland



Property and size: North Head Station - 75,800 Ha

Size of nature refuge: 18,573 Ha.

Land use: Cattle grazing

Conservation values: North Head has a diversity of habitat types that form part of an important wildlife corridor for the area. The nature refuge features unique spring-fed creeks that provide a crucial water source during dry periods for wildlife including Bandicoots, Rock Wallabies and the Antilopine Wallaroo.

Registration history: 2010

The decision to enter a nature refuge agreement with the Queensland Government was a relatively simple one for Barry and Tammy Hughes, graziers at North Head Station. The property has been in Barry's family for more than 100 years and the couple are proud of the unique vegetation, geology, and wildlife of the area.

"The nature refuge is a feather in our cap," Barry said. "It helps us demonstrate that cattle producers can also be good environmentalists who care deeply for our land. For us, it is important to demonstrate that if you manage your land right, you can have a productive enterprise as well as nature conservation."

"Having a nature refuge makes me think about my country differently- it has been part of a larger journey of changing our land management practices to be more sustainable and climate resilient."

Entering into a nature refuge agreement allowed the Hughes to access funding through NatureAssist to construct fencing around the ecologically-sensitive areas of their property and to install new watering points for better grazing management.

The new infrastructure has also helped in the control of feral animals.

"Feral cattle and horses were having a negative impact on the area by increasing the grazing pressure and damaging natural waterholes. The new infrastructure has made control of these feral animals a lot more efficient and allowed us to manage the pressure on the land and the springs," Barry said.

While Barry and Tammy do not currently have a management plan in place for their nature refuge,

they are open to more monitoring - provided it comes with support from qualified personnel.

The Hughes say they're pleased with their decision to enter into a nature refuge agreement and are grateful for support they have received so far from the Queensland Government. They are strong supporters of the Nature Refuges program, believing it strikes a good balance in supporting both production and conservation.

"For us, it is important to demonstrate that if you manage your land right, you can have a productive enterprise as well as nature conservation"

However, Barry believes the program suffers from underinvestment. He stresses that the quality of conservation outcomes could be improved if landholders were able to access funding beyond the initial establishment of their nature refuges, particularly in outback areas where the size and scale of nature refuge means that management actions and maintenance activities require significant investment.

Barry believes the program would greatly benefit from being administered and managed locally by local staff working together with local land managers and nature resource management bodies.

"It would give the program a better sense of transparency and community ownership and I think more landholders would go for it and want to be actively involved," he said.

North Head Station, North Queensland. Barry and Tammy Hughes. *Photo Credit: Pete Murray.*





Billy Buttons (Rutidosia sp.) and Sea Heath (Frankenia sp.) Credit: Copyright Bush Heritage Australia and Wayne Lawler/EcoPix.net







Kings Plain Station. *Photo credit: Tim Norton*

Recommendations

Recommendation 1:

To support improved management and monitoring of the existing 4.4 million hectare network of nature refuges, increase the Queensland Government's annual protected area budget by \$24 million (an increase of 10 percent). This funding grows by >\$600,000 for each additional 100,000 hectares of new nature refuges and special wildlife reserves.

This much-needed investment will allow:

- The continued negotiation of voluntary conservation agreements for properties with high conservation values;
- More interaction between nature refuge landholders and program staff to help landholders improve their conservation management practices and achieve conservation outcomes;
- The establishment of a monitoring and evaluation system to ensure nature refuge landholders are supported in achieving measurable conservation outcomes on their land;
- The delivery of targeted funding for good land managers to help them with conservation planning, management and monitoring; and
- The establishment of connections with Indigenous ranger groups and other established and competent not-for-profit groups to undertake work on nature refuges on a fee-for-service basis.

The above estimate is based on the current Government allocation of funding and staffing to the program (\$4.6 million in 2018-19) and discussions with a conservancy about the operational costs of actively managing large nature refuges for conservation outcomes. The full breakdown of these figures is available in the Protected Areas Solutions report.

Recommendation 2:

Tailor delivery of the Nature Refuges program to reflect the different needs of landholders and landscapes in both settled coastal and agricultural regions and more remote Outback regions.

The Nature Refuges Program should be structured and funded to reflect the differences in the size and function of nature refuges in the coastal and agricultural bioregions compared to those in the Outback.

In the closely settled areas and agricultural zones, nature refuges play a critical role in protecting native habitats and connecting these areas. There are large numbers of relatively small nature refuges, which are potentially eligible to participate in programs such as the Land Restoration Fund and Biodiversity Offsets.

In Outback areas, nature refuges complement national parks to ensure sustainable land management and fire, weed and feral animal control over large areas of (primarily) grazing land. There are small numbers of very large nature refuges. The program needs to recognise the distances and other barriers to collective effort by nature refuge holders, and that programs such as the Land Restoration Fund and Biodiversity Offsets will be inherently more difficult to access.

Recommendation 3:

Ensure investment in private protected areas is proportionate to the scale and significance of the conservation values secured, with new investment likely to be directed primarily towards larger nature refuges (>5,000 hectares) to support effective planning, management and monitoring of conservation outcomes at scale.



Brolgas at Isisford. Photo credit: Dan Proud

Queensland can lead the way

With the highest number of plant and animal species of any state or territory and an increasing number of species on the brink of extinction, Queensland carries an immense responsibility when it comes to conservation.

The Queensland Government has a vision of establishing a world-leading protected areas network, but we are far from achieving this outcome, with the lowest percentage of land set aside as protected area of any state or territory in Australia.

Well managed private protected areas are proven as a key tool to safeguard threatened species, protect important ecosystems and support good land management on private lands. But Queensland landholders are being left to do much of the heavy lifting due to a lack of investment and support from consecutive Governments.

Increased investment and support from Queensland Governments would provide important opportunities to recognise the commitment and hard work of nature refuge landholders, deliver improved conservation outcomes and involve the community in building Queensland's protected area network.

With the right leadership, policy settings and investment, Queensland can continue to grow private protected areas and improve their outcomes for people and nature, allowing the state to truly lead the way on private protected areas.

Acknowledgements

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Our Living Outback is an alliance of The Pew Charitable Trusts, Bush Heritage Australia and the Queensland Trust for Nature. We work to achieve investment in programs that support people and nature.

Indigenous readers are advised that while all care has been taken, this report may feature images of deceased people.

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