



Australian Government

Great Barrier Reef
Marine Park Authority



Queensland
Government

19

REEF JOINT FIELD MANAGEMENT PROGRAM

ANNUAL

REPORT

S U M M A R Y

20



EXECUTIVE SUMMARY

Dedicated field officers are essential for protecting the Great Barrier Reef World Heritage Area, which stretches 2300 kilometres along the Queensland coast. With more than 2900 reefs and 1050 islands — home to iconic plants, animals, habitats and rich cultural heritage — there's plenty of vital field work to do in this World Heritage Area.

The field officers are part of the Australian and Queensland governments' Great Barrier Reef Joint Field Management Program, which operates in the Commonwealth Great Barrier Reef Marine Park and the Queensland Great Barrier Reef Coast Marine Park, plus on Commonwealth islands and Queensland island protected areas.

The joint program provides a constant, in-park presence; delivering conservation actions, checking for change, responding to incidents, welcoming people and upholding compliance.

Our field management activities combat threats and build resilience for the reef, islands and species, so all Australians and international visitors can enjoy the Great Barrier Reef World Heritage Area now and into the future.

Patrolling these waters and islands, the Reef Joint Field Management Program delivers a range of crucial activities. These include monitoring and maintaining internationally important turtle and seabird breeding islands, eliminating island pests, and developing walking tracks, camping areas and lookouts.

In-water activities include maintaining a network of reef protection markers and moorings, and surveying reefs to help us understand and manage the impact of cyclones, crown-of-thorns starfish and bleaching on our coral reef ecosystems.

Field officers interact regularly with stakeholders and the broader community, providing information to park users and ensuring they abide by the rules that protect this iconic place. The program works with First Nations people to manage their Land and Sea Country and encourages communities and industries to protect species, coral reefs and islands.

Field management activities are at the heart of Australia's obligation to protect the Great Barrier Reef World Heritage Area. First agreed in 1979 by the then-Prime Minister Malcolm Fraser and Queensland Premier Joh Bjelke Petersen, the 'Emerald Agreement' established the foundation for joint management of the Great Barrier Reef. The current *Great Barrier Reef Intergovernmental Agreement 2015* cements the Australian and Queensland governments' commitment to long-term protection of the World Heritage Area, as well as the Reef Joint Field Management Program. Across four decades the program has grown from a small handful of officers managing the 12,000 square-kilometre Capricornia section, to 155 officers managing 348,000 square kilometres of marine parks and 470 island national parks and Commonwealth islands.

The Reef Joint Field Management Program won the Prime Ministers Gold Award for Excellence in Public Sector Management in 2019. This significant achievement recognises the program's commitment to collaborate, innovate and tackle threats to the World Heritage Area, deliver on-ground outcomes, and foster strong relationships with First Nations people, the community and others.

The program is undergoing a significant expansion and transformation, which commenced in the 2017–18 financial year following the Australian and Queensland governments' commitment to additional funding. Expansion is being staged to enable considered and sustained growth from a joint base funding commitment of around \$17 million to over \$38 million by 2021–22, and an increase in staff from 115 to around 186 people. In 2019–20 the program advanced eight of the 12 key investment areas: maintaining essential field management capabilities; a safe fit for purpose vessel fleet; island restoration and supporting reef restoration; enhancing compliance through vessel tracking; enhancing compliance through increased in-park presence, public contact and education; streamlining permissions; technology and data management; and collaborating with First Nations people.

This document summarises the Reef Joint Field Management Program's 2019–20 achievements in delivering the *Reef Joint Field Management Program Annual Business Plan 2019-20* and complements the *Reef Joint Field Management Program Annual Report 2019–20*.

COVID-19

The Reef Joint Field Management Program's capacity to deliver planned activities and projects was affected by the COVID-19 pandemic in 2019-20. The program adapted and responded quickly and implemented a number of measures to ensure ongoing delivery of activities while maintaining the safety of staff and the public. Despite COVID-19 impacts on the program's delivery, expansion has enabled noticeable improvements in performance targets for 2019-20.

IN MEMORY

On 6 April 2020 marine parks ranger Zach Robba's life was tragically taken away too early while working in the southern Great Barrier Reef. Being a ranger was Zach's dream job, and he embraced all that it entailed.





Assessments of fire and weed management priorities were undertaken for key Whitsunday Island grasslands

2019–20 FINANCE SUMMARY

The Australian and Queensland governments allocated funding of \$29,765,266 through the *Reef Joint Field Management Program Annual Business Plan 2019–20* and carryover funds to deliver field activities across the 348,000 square-kilometre World Heritage Area. The final available funds for the program increased slightly to \$30,509,525 due to additional revenue received.

At the start of 2019–20, the Great Barrier Reef Marine Park Authority held funds of \$922,047 from the previous year's carryover and the Queensland Parks and Wildlife Service held funds of \$2,815,423.

Revenue of \$1,322,259 was received by the joint program in 2019–20, including \$500,000 from the Authority for additional crown-of-thorns starfish surveys, a \$200,000 discretionary contribution from the Authority towards completion of the 24 metre vessel *Reef Resilience*, \$499,113 from sale of vessels and equipment, \$54,519 in cost recovery, \$50,749 in permit fees, \$12,688 in rent and \$5190 in other revenue.

The Reef Joint Field Management Program expenditure of \$29,377,078 was within 1.3 per cent of the \$29,765,266 budget allocation. This is a significant improvement from eight per cent in 2018–19, particularly given the delays in certain projects due to COVID-19. The program is on track to return to its 6-year performance of being within one per cent of budget allocation.

At the end of 2019–20, Queensland Parks and Wildlife Service held funds of \$255,157 and the Great Barrier Reef Marine Park Authority held funds of \$877,290 on behalf of the Reef Joint Field Management Program.

The program also received funding from other sources that contributed to field delivery in 2019–20, including:

- Queensland and Australian government funding to develop new and improved island visitor facilities in the Whitsundays and assist tourism industry recovery following Cyclone Debbie
- corporate sponsorship towards the Raine Island Recovery Project
- offset funding for Queensland and Australian government approvals associated with Curtis Island Liquid Natural Gas projects
- Queensland Government funding to improve the Magnetic Island Forts Carpark through the Growth Area and Regional Infrastructure Investment Fund
- Queensland Government funding to demolish disused Hinchinbrook Island Resort
- Australian Government funding to provide compliance training through the Capacity Building for Indigenous Rangers Strategy.

OUR ACHIEVEMENTS

The Reef Joint Field Management Program has five core priorities that aim to maintain the outstanding universal value of the Great Barrier Reef World Heritage Area, and enhance economic, recreational and traditional use of the Great Barrier Reef.

Rangers on patrol providing a reef safety net

1716
SEA
DAYS

98
AERIAL
DAYS

16
LAND
DAYS

Number of program staff delivering field activity increased 9%, up from 142 to 155 people



DELIVERING CONSERVATION ACTIONS

SAVING TURTLES
75 days delivering recovery activities at **Raine Island**, 3rd sand reprofiling moving **15,000m³** of sand resulting in **viable turtle nesting habitat doubling** since 2014

ERADICATING PESTS
responding to a **yellow crazy ant** incursion in the Whitsundays and delivering **170 days** of invasive weed control at **Curtis Island**

IDENTIFYING KEY PARK VALUES
10 island parks had **key values, condition and trend** identified

MAINTAINING HEALTHY ISLANDS
51% of island parks within recommended fire prescription up from **47%**, including **70%** of Protection Zones, **55%** of Mitigation Zones, and **51%** of Conservation Zones

FILLING INFORMATION GAPS
Regional ecosystem mapping of **28 previously unmapped islands**

PROTECTING HISTORIC HERITAGE
repairing **Magnetic Island's historic Forts buildings**, part of Townsville's defence history and one of the best examples along the Queensland coastline

PROTECTING CULTURAL HERITAGE
Hook Island rock art protected from goats with exclusion fencing and targeted control

HELPING BOATIES PROTECT CORAL AND SEAGRASS
279 moorings and **269 reef protection markers** inspected and maintained

RESTORING ISLAND HABITATS
Lady Elliot Ecosystem Resilience Plan 2020 finalised and **implementation accelerated** in collaboration with Lady Elliot Island Eco Resort and the Great Barrier Reef Foundation

TRIALLING REEF RESTORATION
Improving macroalgae removal methods at **Magnetic Island** and enhancing coral larvae recruitment

CHECKING FOR CHANGE

REEF HEALTH
1980 reef health and impact surveys across **196 reefs** check health

ENSURING EARLY DETECTION
6549 manta tow surveys monitor crown-of-thorns starfish, covering **1249 kilometres of reef-margin** across the **World Heritage Area**

KEEPING TABS ON SEABIRDS
223 bird surveys at **149 locations** identifying **88 species**, with rare and new species recorded

UNDERSTANDING TRENDS
40 years of seabird data collected by the program analysed for species trends, **12** had probable increases, **30** probable declines and **23** had stable or uncertain trends

WATCHING ISLANDS
health checks on **four priority island parks** to check condition of key values and **96 Island Watch surveys**

IDENTIFYING BIODIVERSITY
6 Key Biodiversity Areas identified that support globally significant numbers of seabirds

SUPPORTING PARTNERS
providing transport and assistance for turtle monitoring on 7 islands, including the **first monitoring in almost 20 years** at the **GBR's largest flatback rookery, Wild Duck Island**

RESPONDING TO INCIDENTS

UNDERSTANDING REEF THREATS
pre-summer workshop assessed the risk of coral bleaching and cyclones

COORDINATING CORAL BLEACHING RESPONSE aerial surveys and **108 in-water surveys** check for coral bleaching during the 3rd mass coral bleaching in the WHA in 5 years

WELCOMING PEOPLE

COMMUNICATING WITH WORLD HERITAGE AREA USERS
2901 contacts with users while on patrol

ENCOURAGING LOCAL STEWARDSHIP
volunteers responded to **61% of marine turtle strandings** and **1200 hours** delivered for island **weed control**

CREATING NEW VISITOR OPPORTUNITIES
Curtis Island's opportunities are expanding with **Connors Bluff day use area** complete and construction of a **20km multi-use trail network** underway; Whitsunday Island's **29km multi-day Ngaro Trail** under construction; and upgrades to Lizard Island's **walking track to Cooks Lookout**, and Lady Musgrave and North West islands popular **campgrounds now open** to visitors

MANAGING COUNTRY TOGETHER
First Nations peoples presence on program **vessels increased three-fold** in the southern GBR to **149 person days** (up from 45 days in 2018-19 and 7 days in 2017-18)

ENABLING SUSTAINABLE USE
decisions made on **316 joint marine parks permit applications**, **25 state marine park** and **54 national park permit applications**

CLEANING UP ISLAND PARKS
demolishing disused Hinchinbrook Island Resort, **8 barge trips** transported **259 tonnes of recycled metal**, **44 tonnes of asbestos** and **20,100 litres of sewage**

PROTECTING ISLANDS, PEOPLE AND PROPERTIES

responded to **3 wildfires** across island national parks, and supported wildfire response across Queensland and interstate with **75 staff deployments**



UPHOLDING COMPLIANCE

IMPROVING RECREATIONAL FISHING COMPLIANCE
3 marine parks zoning education and awareness campaigns held in **Yeppoon, Gladstone, and Green Island**

PROTECTING YOUR PATCH
WHA users provide **67 compliance incidents** reports of illegal activity

PROTECTING REEF SPECIES
1052 dedicated compliance days to deter and identify illegal activity – 938 vessel, 16 land and 98 aerial - **20% above the 870 day target**

PROMOTING INDUSTRY STEWARDSHIP
commercial fisheries vessel tracking reduces threats to marine parks values, **5 court prosecutions** from detections and **3-fold increase** in coral reef fin fishery suspected offences

IMPOSING CONSEQUENCES FOR ENVIRONMENTAL HARM
1349 possible offences lead to: **45** court prosecutions, **133** infringement notices, **58** caution notices, **402** advisory letters, and **30** warning notices

EXPANDING THE COMPLIANCE NETWORK
training **21 Indigenous rangers** as marine parks inspectors with **42 graduates** across **2 years**


ENCOURAGING COMPLIANCE AWARENESS
engaging with **700+ Indigenous rangers and Traditional Owners** to encourage compliance reporting, build relationships and manage land and sea country together

MINIMISING ENVIRONMENTAL HARM
supervising **17 permitted activities** within the World Heritage Area

PROTECTING ENVIRONMENTS

mitigating risk associated with **94 maritime events**, including **38 groundings** and **15 sinkings**

ASSESSING DAMAGE
in-field response to **4 incidents** to assess damage to the World Heritage Area



Around 15,000 cubic metres of sand was moved at Raine Island to create more viable green turtle nesting habitat

2019–2020 HIGHLIGHTS



DELIVERING CONSERVATION ACTIONS

RAINE ISLAND RECOVERY PROJECT

Species recovery work continued on Raine Island in the project's fifth year of funding, with 75 days spent delivering recovery activities with Wuthathi and Meriam Nation (Ugar, Mer, Erub) Traditional Owners. One planned trip in April 2020 was cancelled due to COVID-19 restrictions.

Following successful beach reprofiling exercises in 2014 and 2017 to improve turtle nesting and hatching a third reprofiling was undertaken over 11 days in August and September 2019. Around 15,000 cubic metres of sand was moved to raise the height of the beach and create more viable nesting habitat, which is now double the area of viable habitat before reprofiling commenced in 2014.

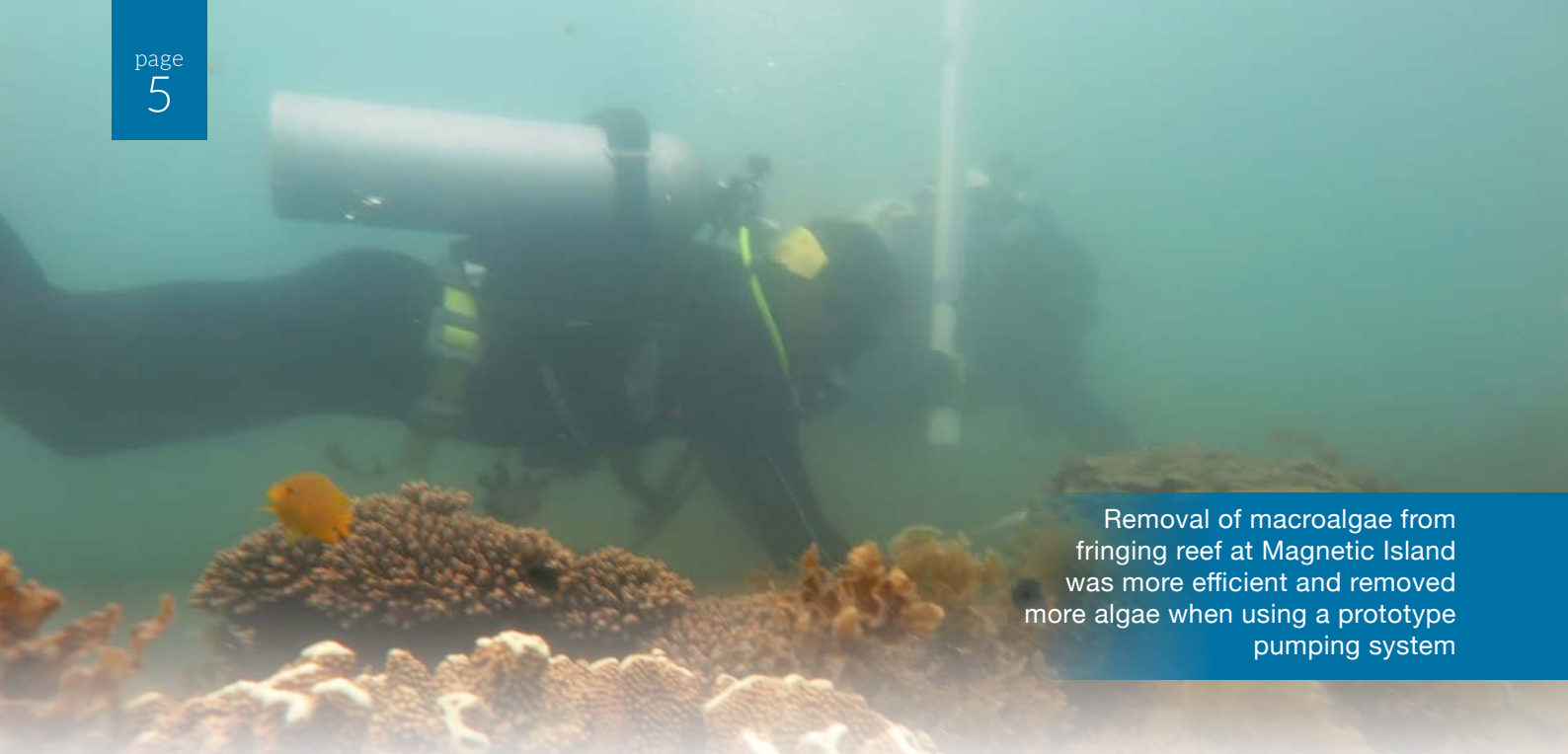
Turtle monitoring revealed a high-density nesting season with approximately 64,000 turtles aggregating in December 2019. However there was low hatchling production compared to previous seasons, partly due to clutch destruction from turtles digging up previously laid eggs; and low nesting success caused by disturbance amongst the high number of female turtles trying to lay on the beach.

The involvement of First Nations people is crucial to the success of the Raine Island Recovery Project. In 2019-20

Traditional Owners were employed as rangers on all nine trips undertaken, with 194 person-days delivered in the field. This included Traditional Owners being at Raine Island as on-site Cultural Heritage Advisors during sand reprofiling and assisting with monitoring at Sandbank No. 8 to enable comparison of nesting and hatching across the two sites. The program's recovery activities are delivered consistent with the *Caring for Raine Island Country and Culture – A Strategic Plan for the Indigenous Cultural Heritage Management of the Raine Island Group* developed by the Traditional Owners.

A draft *Raine Island National Park Scientific Management Statement* and associated draft resource information and pest thematic strategy have been developed and will be progressed further in 2020-21 with Traditional Owner involvement. A historic cultural heritage strategy is also in preparation.

These achievements would not have been possible without the partnership and additional funding from BHP through the Great Barrier Reef Foundation.



Removal of macroalgae from fringing reef at Magnetic Island was more efficient and removed more algae when using a prototype pumping system

VALUES BASED MANAGEMENT

Implementation of the values based management framework for protected areas progressed with further assessment workshops, assessment reports and development of thematic strategies in 2019–20. Value and level of service assessment reports were completed for 10 island protected areas: Raine Island and Capricornia Cays national park scientific; Capricornia Cays National Park; and Whitsunday, Gloucester, Lindeman, Molle, Repulse, Possession and Lizard island national parks. The program is working with First Nations peoples so that these values based assessment reports reflect a shared assessment of the islands values, levels of service and management. A review of the Barnard Island Group National Park value and level of service assessment is also underway with the Mandubarra peoples and the program has commenced working with the Wulgurukaba peoples to develop a Magnetic Island National Park Management Statement.

Work also commenced on developing values inventories and assessments for Broad Sound, South Cumberland and Keppel Bay island national parks; Percy Isles National Park; Flinders and Howick groups national parks (Cape York Peninsula Aboriginal Land); and Marpa, Ma'alpiku, Mitirinchi, Piper and Wuthara islands national parks (Cape York Peninsula Aboriginal Land); which will continue in 2020–21.

Thematic strategies provide more detail around on-ground delivery for protected areas and are considered together with values assessment reports, management plans and statements. Fire thematic strategies were developed, approved and recorded in the Queensland Parks and Wildlife Service's electronic Flame system for Lindeman, Repulse, Goold and Gloucester island national parks. Draft strategies were also prepared for South Cumberland, Broadsound and Whitsunday island national parks. Pest thematic strategies were also developed, approved and recorded for Capricornia Cays and Keppel Bay Islands national parks and national parks scientific; and Molle, Lizard, and Gloucester island national parks.

Monitoring and research thematic strategies that commenced in 2018–19 for Capricornia Cays National Park and National Park Scientific, and Curtis and Whitsunday island national parks were completed. They provide direction on health checks to be undertaken to monitor the condition of island key values, with health checks undertaken on these islands and also Hinchinbrook Island National Park in 2019–20.

REEF RESTORATION

The Reef Joint Field Management Program continues to deliver the *Reef Blueprint's* recommendation for active localised reef restoration. In 2019–20 a pumping system to remove macroalgae from fringing reef was trialled at Florence Bay on Magnetic Island. The trial demonstrated that the pumping system is more efficient and removes a greater volume of macroalgae when compared with previous years manual methods. To encourage recruitment of coral, the program also collaborated with James Cook University and Southern Cross University to trial coral larvae enhancement at the cleared sites, following successful trials elsewhere in previous years. James Cook University is monitoring the effect of macroalgae removal and coral larvae enhancement on the fringing coral reef environment.

Another reef restoration project being led by the program is the Green Island Mars Reef Stars, a collaboration with Mars Sustainable Solutions, the Sydney University of Technology and local tourism operators to trial localised restoration at Green Island with 'reef stars' and 'coral clips' using techniques implemented successfully in Indonesia. While COVID-19 restrictions have delayed the project, reef stars are being fabricated and in-field works will occur in November 2020 in collaboration with local tourism operators.

The program continued to support and enable reef restoration initiatives led by others, including coral larvae enhancement trials, coral gardening at tourism sites, and pumping of water from cooler depths.



Aerial baiting at North West Island commenced to reduce the threat mice pose to nesting seabirds



PEST MANAGEMENT

Targeted pest management continued in 2019–20 to protect the natural integrity of priority island locations and reduce disturbance and predation of vulnerable species. The program delivered a range of pest plant and animal projects to control pests like pigs, deer, foxes, dogs, mice, cattle, goats, lantana, Siam weed, and invasive grasses.

Rehabilitation of koala habitats on St Bees Island is progressing well following confirmed eradication of goats in 2018-19. The Program has refined its lantana control to incorporate research findings from 2018-19 on the benefits of combined herbicide and fire, and reduced overgrazing by removing 229 wallabies. Monitoring indicates that lantana cover has decreased by 38 to 100 per cent across monitoring sites and that recruitment of native grasses has increased. In future years these activities should lead to eucalypt recruitment, which will support the island's koala population.

The North West Island mice eradication project has commenced with on-ground baiting, and will extend into 2020-21. Mice are a significant threat to seabirds which nest on the island, eating eggs and young chicks and even attacking nesting adults. For safety reasons the island was closed to all visitors while baiting was undertaken and to enable post-baiting monitoring.


Control of feral animals continues on Curtis Island with aerial shooting and ground control removing 49 cattle and 182 pigs. These control activities enable recovery of the marine plain which supports critically endangered Capricorn yellow chats and reduces disturbance to vulnerable flatback turtles nesting sites, with monitoring showing no nest

predation for a second year. While the threat pests pose to the marine plain are reducing, the threat posed by climate change and associated sea level rise is now evident. In 2019-20 the largest tidal intrusion of the marine plain to date was observed, extending into areas not previously reached. This together with three years of drought has led to significant decline in *Schoenoplectus* spp habitat where the critically endangered chat breeds. Options to prevent tidal ingress into key habitats are being investigated and will be considered further in 2020-21.

While COVID-19 restrictions delayed some planned pest control activities in 2019-20 the program took the opportunity to reduce seagull numbers on several islands in the Capricornia Cays while visitor numbers were low. Initial observations indicate that targeted removal of seagulls around ground nesting tern colonies results in improved breeding success.

An emergency response was initiated for the yellow crazy ant detection at Shute Harbour in 2018-19. The program has strengthened its biosecurity measures to prevent the ants spreading to the Whitsundays' island national parks. Regular island surveillance has not found any sign of the invasive ants and the heightened surveillance will continue in 2020-21.

Offset funding from the Curtis Island Environmental Management Precinct and Queensland and Australian government approvals associated with the Liquid Natural Gas plants made the Curtis and North West activities possible.



1980 reef health and impact surveys were undertaken to help produce a reef wide snapshot of the Great Barrier Reef's health



CHECKING FOR CHANGE

The joint program checks for change on islands and in the water to monitor reef and island condition and the extent of existing or emerging threats. Checking for change identifies impacts from the main threats to the World Heritage Area and enables appropriate management actions to be implemented.

REEF SURVEYS

Field management officers conducted 1980 reef health and impact surveys across 196 reefs in 2019–20, of which 956 surveys were checking for crown-of-thorns starfish and 108 surveys were checking for coral bleaching.

They also completed 6549 manta tow surveys to detect crown-of-thorns starfish across 87 reefs and approximately 1249 kilometres of reef-margin across the Great Barrier Reef. When combined with regular localised tourism operator surveys and reactive agency surveys, these field management surveys produce a reef wide snapshot of the Great Barrier Reef's health. They also support the *Reef Blueprint's* recommendation to ramp up crown-of-thorns starfish control, including improved surveillance and reporting. Funding from the Great Barrier Reef Marine Park Authority's Crown-of-Thorns Starfish Control Program enabled the elevated survey effort.

A qualitative evaluation of the use of reef health and impact surveys by the program was undertaken to inform delivery of future reef health assessments. The evaluation identified that the reef health and impacts surveys are a useful tool for: situational awareness of reef health; early warning of impacts such as coral bleaching or disease; and in some instances for impact assessment such as post bleaching or at vessel grounding sites. However, reef health and impact surveys are not the most suitable tool for determining the effectiveness of management actions and where this level of assessment is required other methods should be utilised.

Subtidal seagrass monitoring was also undertaken at six target sites – Newry, Hinchinbrook and Flinders islands and Tongue, Bathurst and Lloyd bays. These surveys expand the Marine Monitoring Program's geographic assessment of seagrass condition.

MARINE TURTLE MONITORING

In addition to green turtle monitoring at Raine Island the Reef Joint Field Management Program leads and supports monitoring at a number of other marine turtle foraging and nesting sites throughout the World Heritage Area.

In 2019-20 the program provided vessel transport and assistance to colleagues within the Queensland Parks and Wildlife Service's Threatened Species Operations, James Cook University researchers and First Nations people to undertake turtle monitoring and improve knowledge and understanding of priority foraging and nesting sites, including at Howick, Milman, Wild Duck, Heron, Wreck and Peak islands. It has been almost 20 years since turtle monitoring was undertaken at Wild Duck Island and the island has become the World Heritage Area's largest nesting site for vulnerable flatback turtles.

The eastern Australian loggerhead turtle nesting population declined from around 3500 females in the 1970s to around 500 females in 2000. Following the use of turtle exclusion devices in the commercial trawl fisheries there has been a major recovery in loggerhead nesting numbers at mainland nesting sites, with nesting numbers now similar to late 1970s and early 1980s numbers. However the same recovery has not been observed at island nesting sites, with recovery at Wreck Island, a previous primary breeding site, still 87 per cent lower than in the 1970s.

To investigate other factors impacting on island nesting recovery of endangered loggerhead turtles the program is supporting a satellite telemetry tracking study led by Queensland Parks and Wildlife Service's Threatened Species Operations. Twenty satellite tags have been deployed on nesting loggerhead turtles, 18 on turtles nesting at Wreck Island and two on turtles nesting at Heron Island. One turtle has migrated around 2900 kilometres to its foraging area off the Crocodile Islands in the Northern Territory – the longest recorded migration of an eastern Australian nesting loggerhead turtle. A report will be prepared in 2020-21 to inform future management, once all satellite tracking information is collected and analysed.



Six key biodiversity areas for seabirds have been identified in the World Heritage Area and more areas are being assessed

SEABIRD AND SHOREBIRD MONITORING

The Reef Joint Field Management Program undertook 223 bird surveys across 149 locations in 2019–20, the fifth full year of monitoring under the *Coastal Bird Monitoring and Information Strategy (Seabirds 2015–2020)*. These surveys identified more than 88 different species of seabirds and shorebirds, with some rare and/or new recorded sightings for the WHA, including fairy prion, common diving-petrel, Arctic jaeger, brown skua and northern giant-petrel. A record 145 vulnerable red-tailed tropicbird nests were sighted during the winter nesting surveys at Raine Island.


To improve understanding of the migration movements of endangered Herald petrels, data from 13 geolocators attached to petrels in 2017–18 and recovered in 2018–19 was analysed. The analysis revealed a lot of movement of petrels into the Coral Sea and north of Papua New Guinea, with some birds travelling over 4000 kilometres east to near Fiji and over 3000 kilometres north to near the Mariana Trench. Further analysis will improve our understanding of movements and foraging sites during the non-breeding season.

An analysis of 40 years of Great Barrier Reef seabird data collected by the program was completed in collaboration with the University of Queensland and Swedish University

of Agricultural Sciences. The analysis of trends in World Heritage Area seabird breeding populations indicated that of 70 site-by-species combinations – 30 had probable declines, 23 had stable or uncertain trends and 12 had probable increases. This analysis will inform the five year review of the *Coastal Bird Monitoring and Information Strategy (Seabirds 2015–2020)* which will commence in 2020–21 to guide future monitoring.

In collaboration with Birdlife Australia the program has identified six Key Biodiversity Areas for seabirds in the World Heritage Area which support globally significant numbers of nesting or roosting seabirds: Raine Island, Moulter and MacLennan cays; Islands off Cape Melville; Michaelmas Cay; South Barnard Islands; Swain Reefs; and Capricornia Cays. Recommendations are underway to have these areas recognised as internationally significant and further assessments of other areas are underway to determine if they also meet the criteria for Key Biodiversity Areas.

Work with James Cook University to identify key seabird foraging sites within the World Heritage Area, was delayed due to COVID-19 and will extend into 2020–21. Once complete it will enable an assessment of the adequacy of protection and management of these key foraging sites.



The program monitored reef conditions closely across the second hottest summer on record for Queensland



RESPONDING TO INCIDENTS

Field management officers respond to incidents to minimise harm to the World Heritage Area's outstanding universal value, including ship and smaller vessel groundings and sinkings, pollution spills, wildfires, pest incursions, stranded marine animals and severe weather events, such as flooding.

MARITIME INCIDENTS

In 2019–20, the Reef Joint Field Management Program assessed the risks associated with 94 vessel events in the World Heritage Area. These events had the potential to cause environmental damage and included seven spills, 38 groundings, 15 sinkings and 12 unseaworthy or abandoned vessels. Assessment resulted in six official Order to Remove notices, in-field response to 25 incidents and four site assessments of damage. The program removed a wreck from Bush Island to prevent further damage to the reef and minimise potential impacts on nearby Wild Duck Island which is a significant nesting site for vulnerable flatback turtles.

The program finalised a *Great Barrier Reef Incident Management Framework* which provides clear direction for staff in responding to incidents. While a number of training courses were delayed due to COVID-19 restrictions the program supported delivery of oiled wildlife training by the Department of Environment and Science's Incident Response. Twelve local community members and Department of Environment and Science wildlife officers were trained on how to respond and care for oiled wildlife in the event of an oil spill, an identified gap in response capability. A second course has been deferred to 2020-21.

Oil spill evidence collection kits and associated manuals are being updated to ensure they are contemporary and align with partner agencies. While there have been COVID-19 delays with international deliveries, the program will complete refurbishment of 42 existing kits and have 10 new kits to expand response capability in 2020-21.

To support the program's preparedness staff participated in various scenarios and exercises during 2019-20. Twelve staff participated in Exercise Kremer, a Queensland pollution response preparedness exercise in Mackay. The multi-agency exercise demonstrated that program staff have strong capability and flexibility which is invaluable in the event of an incident, areas for improvement were also identified and will be advanced in 2020-21.

Funding from Reef Trust offsets supports the program's response to maritime incidents.

REEF HEALTH AWARENESS

An annual pre-summer workshop was held in November 2019 to assess climate related risks to the Great Barrier Reef and the potential for coral bleaching in 2019–20. At the time of the workshop, the impending Queensland summer was forecast to be drier and warmer than average; the monsoon onset was expected to be delayed; and the cyclone season was forecast to be below average. At that time the thermal stress forecasting tools suggested that moderate severity bleaching on a regional scale was likely.

Reef conditions were monitored closely, with regular checks of weather conditions, forecasts, modelling, and reef health reports. This situational awareness of reef health, particularly during the high-risk summer months between November and April (spanning the wet season) enabled the program to keep the Authority, Queensland Parks and Wildlife Service, partners and the public informed through weekly updates. Outside this high-risk period monthly updates were provided.

Summer 2019-2020 became the second hottest summer on record for Queensland with sea surface temperature anomalies in February 2020 the warmest on record for the Great Barrier Reef since 1900, at 1.25°C above average. The accumulation of heat stress led to the third mass coral bleaching event in the last five years for the World Heritage Area. Unlike the 2016 and 2017 mass bleaching events when extreme temperatures were mainly concentrated in the northern part of the World Heritage Area, in 2020 above average sea surface temperatures were observed across the full World Heritage Area, resulting in widespread bleaching.

In-water and aerial surveys were undertaken by the program to determine extent and severity of the bleaching event. Following these surveys, an Authority staff member participated in further, more in-depth aerial surveillance with the Australian Research Council Centre of Excellence for Coral Reef Studies. Levels of mortality and recovery vary and the full impact of this third bleaching event is yet to be determined.



The program has established and emerging arrangements with First Nations people to manage Land and Sea Country together



WELCOMING PEOPLE

The joint program welcomes people to appreciate, respect and enjoy the World Heritage Area by improving community understanding of values and threats, and providing visitor facilities to enable ecologically sustainable use. The program welcomes the involvement of industry and the broader community in field delivery, and partners with First Nations people to expand our shared capacity to protect and recover reef, islands and species.

WORKING WITH FIRST NATIONS PEOPLE

The program acknowledges the continuing land and sea country management and custodianship of the World Heritage Area by Aboriginal and Torres Strait Islander First Nations People. Wherever possible the program works with First Nations people to manage Land and Sea Country together. The program focuses on getting First Nations people back on country and engaged in land and sea country management, and the Queensland Parks and Wildlife Service jointly manage a number of National Parks (Cape York Peninsula Aboriginal Land) with First Nations people.

In 2019–20 there was a three-fold increase in delivering field activities together with First Nations people in the southern Great Barrier Reef. First Nations people spent 149 person-days on field management vessels undertaking activities with program staff including examining cultural sites, compliance, pest control, fire management, seabird monitoring, and infrastructure maintenance, up from 45 days in 2018-19 and seven in 2017-18. Due to COVID-19 restrictions there was a decline in the northern Great Barrier Reef from 640 person days in 2018-19 to 345 in 2019-20. Sea time attained by Indigenous Rangers aboard program vessels also assists them in attaining their coxswains' tickets.

The program has a number of established and emerging arrangements with First Nations people and this will continue to expand. This includes supporting Gidarjil Development Corporation in delivering their *Sea Country Business Strategy 2019–25*, with funding through Reef Trust offsets. The program delivered a range of activities with Gidarjil rangers, including improvements to North West and Lady Musgrave

island visitor facilities and pest control activities. Some Gidarjil rangers worked alongside program rangers as full time interns, an excellent opportunity for cross-cultural exchange of knowledge and experience. The program is also assisting Gidarjil Development Corporation with procurement of their new vessel *Guardian Warrior* which will enter service in 2020-21.

Girringun Land and Sea Rangers successfully delivered field activities in their sixth year of a works and services agreement and the program has entered into a work arrangement with Yirrganydji rangers to undertake monthly seabird counts at Michaelmas Cay. Girringun Aboriginal Corporation took ownership of their new vessel *Gunnundali* in 2019-20, with the program providing procurement and project management assistance.

Further cultural awareness protocols were established and documented with First Nations people under Indigenous Management Agreements for National Parks (Cape York Peninsula Aboriginal Land) and the use of such protocols is expanding to other areas. For the first time a cultural protocol video was developed with the Cape Melville, Flinders and Howick Island Aboriginal Corporation highlighting respectful ways to visit country. A second video is in preparation and more videos are planned for 2020-21. The protocols and videos will ensure program staff are aware of and respect First Nations peoples' traditions and customs when within their respective Land and Sea Country. The program also supported the development of several videos promoting Indigenous rangers and their protection of Sea Country.



Field officers talk directly with park users while on patrol in the World Heritage Area

COMMUNICATION, EDUCATION AND STEWARDSHIP

For many World Heritage Area users, field management officers are the public face of the Australian and Queensland governments' management of the Great Barrier Reef. Communication with park users is a vital part of encouraging voluntary compliance and maintaining Reef health.

Many people now prefer electronic maps to printed maps when travelling through the marine parks. However, printed zoning maps are still important and 46,400 maps were printed for distribution to help visitors to the marine parks understand where they are boating and what's allowed.

The Reef Joint Field Management Program recorded 2901 public contact moments in 2019–20, a 17 per cent increase from 2018-19. These are moments where field officers talk directly with park users while on patrol in the World Heritage Area. Part of these discussions include checking that park users know the rules and have access to zoning information with 67 per cent of 2434 users having maps available.

Zoning maps and other material produced by the program, such as Protect Your Patch collateral, is distributed by program staff and the Authority's regional engagement team to community access points and at community and major events such as fishing and boating shows, BCF Club Nights, fishing competitions and other key community events.

Field management activities have also been promoted on social media, including Facebook, Twitter, Instagram and LinkedIn. By using a combination of face-to-face contact, print and social media, the program is reaching many thousands of people to encourage stewardship, improve their understanding of the World Heritage Area and what's allowed, and let people know what they can do to help protect it.

The program has a network of over 500 trained marine animal stranding volunteers, including community groups, individuals and Indigenous Land and Sea Rangers. These volunteers responded to 61 per cent of reported marine strandings in 2019–20, with many of these responses occurring under COVID-19 modified operating procedures.

The program also supported 59 volunteers assisting with turtle monitoring, 26 assisting with campground hosting and


62 assisting with weed control. These volunteers expand the program's capacity to deliver field activities across the World Heritage Area.

ASSESSMENTS AND PERMITS

The program helped improve the established joint marine parks assessment and permit framework with new routine permits developed for cruise ships and barges and an expansion to the existing routine permit for tourism and charter operations. These routine permits provide a streamlined assessment and decision making process so that operators can obtain their permits as quickly as possible and staff can direct effort at activities that pose a higher risk to the marine parks. All applications are now being received online and the average processing timeframes continue to improve with routine permits decisions within 15 business days and tailored assessments within 39 business days.

In 2019–20, the joint program assessed and made decisions on 316 Commonwealth and Queensland marine parks, 25 Queensland marine park and 54 national park permit applications, and eight commercial activity agreements, to enable sustainable use of the World Heritage Area. The total number of marine parks permits in effect at the end of 2019–20 was 1437 permits comprising 4664 permissions, an increase from 1312 permits comprising 4202 permissions in 2018-19.

The program is supporting the Queensland Government's Great Barrier Reef Island Resort Rejuvenation Program, led by the Department of Innovation, Tourism and Industry Development. In 2019-20 the program demolished the disused Hinchinbrook Island Resort with funding from the Island Resort Rejuvenation Program. Eight barge trips transported 259 tonnes of recycled metal, 44 tonnes of asbestos, 91 tonnes of general waste and 20,100 litres of sewage from the site at Cape Richards. The former lease area has been relinquished back to the national park estate and the adjacent esplanade is now closed and will be incorporated into the national park. The program also assisted with site supervision of resort demolition works at Hook, Green and South Molle islands.



A new 20 kilometre multi-use trail network is under construction on Curtis Island

EXPANDING VISITOR FACILITIES

Opportunities for Curtis Island visitors are expanding with completion of a new day use area at Connors Bluff which includes walkways and lookouts that provide outstanding views of Southend Beach and the island's rugged windswept headlands. A new 20 kilometre multi-use trail network is also under construction with stage 1, which commences at Connors Bluff and extends along the wind sheared headlands complete. Stage 2's hinterland trails are under construction and will be completed in 2020-21. These new opportunities are realised through offset funding from the Curtis Island Environmental Management Precinct.

Magnetic Island is a popular destination for locals and visitors to North Queensland. While around 70 per cent of the island is protected area there are over 2500 permanent residents on the island. The Forts walk is one of the most popular visitor sites on the island and provides visitors with an opportunity to view and learn about the island's historic Forts complex, one of the best examples of such defence fortifications along the Queensland coastline. In 2019-20 the program undertook restoration works to improve the condition and safety of the historic Forts building, so that future visitors can appreciate its heritage and the amazing 360 degree views from the top.

The program is also collaborating with Townsville City Council to undertake a major redevelopment of the Forts carpark which will improve vehicle parking and bus access at the congested location, and create a central hub for park information. Planning is well advanced and construction will commence in 2020-21. Improvements to a number

of Magnetic Island's walking tracks damaged during the Townsville floods in February 2019 are underway and will extend into 2020-21. Funding from the Reef Joint Field Management Program, the Queensland Government Disaster Recovery Fund, and Queensland Government Growth Area and Regional Infrastructure Investment Fund are making these improvements possible.

Whitsunday Island's new 29 kilometre multi-day walking track the Ngaro Trail is well advanced. The trail will extend from Tongue Point to Whitehaven Beach, the World Heritage Area's two most popular tourism destinations. Construction commenced in 2018-19 and will be completed in 2020-21. The route for the new trail has been aligned with Traditional Owners as on-site cultural advisors, to minimise potential impacts on Indigenous heritage values. The Ngaro Trail is one of many new visitor opportunities the program has delivered since Cyclone Debbie impacted the Whitsundays in March 2017, supported by significant additional funding from the Queensland and Australian governments.

In the southern Great Barrier Reef North West and Lady Musgrave islands are popular camping and day visitor sites for locals and visitors alike. Offset funding for Queensland and Australian government approvals associated with Curtis Island Liquid Natural Gas projects has enabled the program to improve campgrounds, day use areas and fuel storage areas on the two islands. The improvements have been delivered together with Gidarjil Land and Sea Rangers and have been designed so that visitors can coexist with nesting turtles and shearwaters which frequent the islands.

Aerial patrols are undertaken in addition to vessel and land based patrols to detect illegal activity and encourage voluntary compliance

UPHOLDING COMPLIANCE

Illegal fishing is one of the highest direct risks to the World Heritage Area. During 2019–20 the Reef Joint Field Management Program continued to step up its enforcement operations with support from partner agencies, including Maritime Border Command, Australian Federal Police, Queensland Boating and Fisheries Patrol and Queensland Police.

COMPLIANCE PATROLS

In 2019–20, there were 1052 days dedicated to compliance patrols, 20 per cent higher than the 870 day target — 938 days on vessels, 16 land-based days and 98 days of chartered flights — to encourage user compliance and maintain the integrity of the marine parks zoning plans and World Heritage Area values. This is in addition to surveillance flights undertaken by Maritime Border Command. For a third consecutive year, the number of dedicated days remains above 900 days.

Seventy-eight per cent of the program's dedicated compliance days were undertaken during high-risk illegal recreational fishing periods, such as weekends, public holidays, school holidays and good weather periods when winds are less than 10 knots, when fishers are more likely to be in the World Heritage Area.

The program supported delivery of the Whitsundays Action Plan in 2019-20. Vessel patrols were increased, Shark Smart messaging was communicated and monitoring cameras were installed in a number of bays as part of a marine parks zoning education and awareness campaign targeting local and site-specific issues.

CONSEQUENCES FOR ILLEGAL ACTIVITY

There were 1349 possible offences reported in 2019–20. Illegal recreational fishing comprised 52 per cent of these offences, similar to the preceding three years. These reported offences resulted in 133 infringement notices (\$217,476 in fines), 58 caution notices, 402 advisory letters, 30 warning notices and 45 court prosecutions (\$114,890 in fines) to provide an effective deterrent to further illegal activity.

TRACKING COMMERCIAL FISHING VESSELS

Under the *Queensland Sustainable Fishing Strategy 2017-2027*, from 1 January 2020 all commercial fishing vessels operating in the World Heritage Area are required to operate vessel tracking units. With the expansion of vessel tracking the program now has the ability to closely monitor marine parks zoning activities. This has significantly increased the number of suspected marine parks offences detected. In 2019-20 there were five successful court prosecutions from incidents detected by vessel tracking; 145 suspected Coral Reef Fin Fishery offences were reported, a significant increase from 39 in 2018-19; and a number of suspected offences were reported in other fisheries. Regular assessments of the compliance threat for commercial fisheries are undertaken quarterly and the threat for three fisheries has reduced since vessel tracking commenced: sea cucumber collecting; crayfish and rock lobster fishing; and demersal line fishing.



Protect Your Patch campaigns were run in Yeppoon, Gladstone and Green Island to encourage stewardship and reporting of illegal activity

PROTECT YOUR PATCH

To combat recreational fishing complacency and negligence, the program continued with a fourth year of marine parks zoning education and awareness. In 2019–20 three campaigns were held during school holiday periods — at Yeppoon during July, in Gladstone during September and at Green Island across Christmas — focused around Protect Your Patch messaging to encourage marine parks users to follow zoning rules and report illegal activity. While further campaigns in the second half of 2019-20 were deferred due to COVID-19, in June 2020 an Eye on the Reef education and awareness campaign was delivered. The campaign encouraged recreational fishers and boat-owners to download and use the app to know what marine parks zone they are in, what's allowed and to report illegal activity. Community reporting of illegal activities increased to 67 incident reports in 2019-20, up from 56 reports in 2018-19.

COVID-19 INFLUENCE ON RECREATIONAL FISHING

In response to the threat posed by COVID-19, in March 2020 the Queensland Government closed all non essential services, quarantined Indigenous communities, closed camping areas, and restricted many activities. While this led to dramatic declines in commercial fishing and tourism activities, it coincided with a sustained period of favourable weather and the traditional high use recreational fishing periods of Easter, ANZAC day school holidays. As recreational fishing was allowed to continue during this time, these unique circumstances resulted in an unprecedented increase in recreational fishing in the World Heritage Area. In response, the program tailored compliance activities

to deliver highly visible surveillance in areas adjacent to highly populated centres and specific zones vulnerable to illegal fishing. This resulted in a record number of dedicated compliance patrol days and possible offences reported. In April 2020 dedicated patrols were 30 per cent higher than previous years, with 89 days delivered and 97 offences reported. These in-field patrols were complimented by a series of media releases and social media highlighting the planned patrols and detection of illegal activities

INDIGENOUS RANGER TRAINING

The Authority entered into a Memorandum of Understanding with the Department of Prime Minister and Cabinet in February 2018 to train at least 40 Indigenous rangers in Certificate IV in Government Investigations by June 2020. In 2019-20 a further 21 Indigenous rangers completed their training, bringing the total to 42 rangers trained across two years through the Capacity Building for Indigenous Rangers Strategy.

Compliance awareness training was also provided to 111 Traditional Owners and Indigenous Land and Sea Rangers to raise awareness and encourage reporting of offences. First Nations people are an important part of the joint program's compliance network, with over 717 Indigenous rangers and Traditional Owners talking with the program's Indigenous compliance team about management of their respective Sea Country. COVID-19 restrictions had a significant impact on the program's ability to meet in-person and undertake in-field activities with Indigenous Rangers and First Nations people. Funding provided through the Australian Government's Capacity Building for Indigenous Rangers Strategy made this training possible.



There are now 155 program funded staff delivering field activities across the World Heritage Area

PROGRAM INPUTS

Delivery of field management activities relies on a skilled workforce, operational and appropriately located management infrastructure, a fit-for-purpose and well-maintained vessel fleet, technological advances, good systems and strong governance.

VESSEL FLEET

Field management vessels spent 1716 days at sea during 2019–20, a 15 per cent increase from 1481 days in 2016–17 before expansion commenced. The 24-metre vessel *Reef Ranger* spent 204 days at sea in its sixth year of operation, less than the planned 263 days due to COVID-19 restrictions.

With further delays in delivery of the program's new 24 metre vessel *Reef Resilience* in 2019–20, the program utilised alternative platforms to deliver field activities, including other program vessels, charter vessels and helicopters. The original contract for construction has been settled and a new contract entered into with an alternative builder, with delivery of *Reef Resilience* scheduled for February 2021.

Construction has commenced on a new 17 metre patrol vessel to replace *Tamoya* in the Whitsundays, with the vessel scheduled to enter service in July 2021. *Reef Scout*, a new 6.2 metre rigid-hulled inflatable boat used to deliver compliance patrols from *Reef Ranger* entered service in February 2020, replacing *Darter II*.

WORKFORCE

Expansion of the program in 2019–20 has seen a further nine per cent increase in the number of field management funded staff, up from 142 to 155 staff, with further recruitment to new positions to progress in 2020–21.

Well-trained staff are essential to the delivery of an effective, efficient and safe Reef Joint Field Management Program. Seventy-eight staff received training across 17 different courses in 2019–20, including the tenth iteration of the highly successful Field Management Foundation course, which was first launched in 2014 and has now trained 185 people. COVID-19 restrictions had a significant impact on the delivery of training courses in 2019–20 with a number of courses deferred to 2020–21, including another Foundation course.

TECHNOLOGY

The joint program continues to explore and deliver technology improvements to enable more efficient and effective monitoring and reporting. In 2019–20 field staff captured 1455 trips, 2906 activities and 6946 events on the program's Field Reporting System, an electronic system that records details of field management trips.

Monitoring the number of turtles at Raine Island has previously been a challenging and time-consuming task to obtain accurate information. The Reef Joint Field Management Program has been collaborating with the Queensland University of Technology and the Department of Natural Resources, Mines and Energy to develop automated image analysis for turtles and seabirds using drone footage. Automated analysis for turtles has been successfully achieved and a scientific paper has been published on the use of this more efficient and effective technique for population estimation. Work continues to automate analysis for seabirds. Use of these methods for monitoring turtles and seabirds will extend to other sites across the World Heritage Area and enable more efficient and effective collection of information to inform management. The program is working with the Queensland University of Technology to identify other new technologies that will enable more efficient and effective delivery of field activities.

Green turtles congregate in the waters around Raine Island during nesting season

RESULTS AGAINST PERFORMANCE INDICATORS

Performance indicators highlight the program’s achievements against the *Reef Joint Field Management Program Annual Business Plan 2019–20*, which the Director-General of the Department of Environment and Science and the Chief Executive Officer of the Great Barrier Reef Marine Park Authority jointly approved.

With the introduction of a new style of Annual Business Plan in 2018–19, the program refined and improved how success will be evaluated through the use of performance indicators. The program has a high standard of performance and — in acknowledging the need to increase field delivery across the World Heritage Area — set challenging targets for delivery in 2018–19 and this continued in 2019–20.

In 2019–20, the program had 35 challenging performance indicator targets of which 25 (72 per cent) were achieved; six (17 per cent) were not achieved, but demonstrated significant progress; and four (11 per cent) were not achieved or had no significant progress. As illustrated below this is a significant improvement on 2018–19 when the new performance indicators were introduced. Despite COVID-19 impacts on delivery the program’s expansion has enabled noticeable improvements in delivery, with an increase in performance targets achieved and corresponding reductions in targets not achieved or with significant progress. The following table provides further information on why individual performance indicator targets have not been fully achieved.

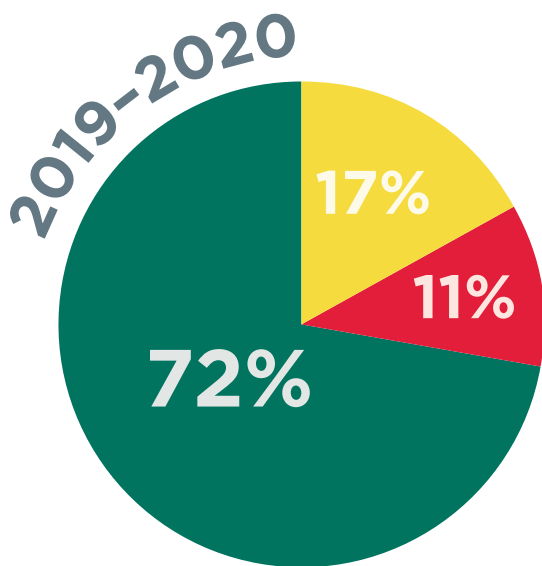


Figure 1: Percentage of performance against indicator targets 2019–20.

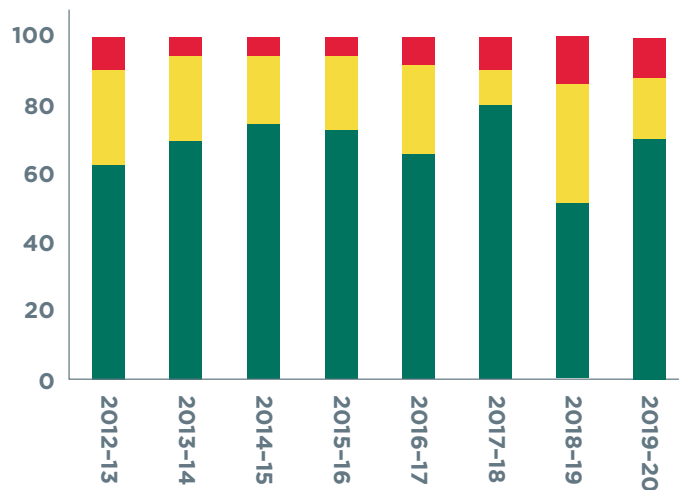


Figure 2: Program performance over eight years.









KEY

- TARGET ACHIEVED
- SIGNIFICANT PROGRESS TOWARDS TARGET
- TARGET NOT ACHIEVED + NO SIGNIFICANT PROGRESS

	PERFORMANCE INDICATOR	RESULTS 2019-20	
DELIVERING CONSERVATION ACTIONS	90 PER CENT OF THE REGIONAL PRIORITY BURN PROGRAM DELIVERED	100 per cent of the 2019 regional priority burns that the program was the responsible land manager for were completed (five burns). The program also provides assistance with fire management of the Curtis Island Environmental Management Precinct Protection Zone, which is the responsibility of the Curtis Island Liquid Natural Gas plant operators. One burn planned for this area in 2019 was not completed, however the program will assist with this burn during the 2020 fire season.	■
	90 PER CENT OF SCHEDULED PROTECTION ZONE FUEL MANAGEMENT TREATMENT DELIVERED	100 per cent of the 2019 Protection Zone burns that the program was the responsible land manager for were completed (two burns). The program is responsible for an area adjacent to the above mentioned Curtis Island Environmental Management Precinct Protection Zone and will undertake mitigation works there during the 2020 fire season.	■
	40 PER CENT OF CONSERVATION ZONES ARE WITHIN BURN PRESCRIPTION	51 per cent of Conservation Zones are within burn prescription.	■
	90 PER CENT OF THE STRATEGIC PEST MANAGEMENT PROGRAM DELIVERED	90 per cent of strategic pest projects delivered (nine projects). While a review of pig control on Hinchinbrook Island was undertaken to identify priorities, COVID-19 prevented control activities from progressing as planned. Eradication of mice from North West Island commenced late in 2019-20 following approval to use an off label pesticide and will continue in 2020-21.	■
	75 FIELD DAYS SPENT DELIVERING RAINE ISLAND RECOVERY PROJECT ACTIVITIES WITH TRADITIONAL OWNERS	75 field days were spent delivering recovery activities with Traditional Owners across nine trips despite a further April 2020 trip being cancelled due to COVID-19 restrictions.	■
	DELIVER THE THIRD SAND REPROFILING WORKS AT RAINE ISLAND TO MOVE AROUND 12,000 CUBIC METRES OF SAND TO CREATE FURTHER VIABLE NESTING BEACH ABOVE INUNDATION LEVEL	The program delivered its third sand reprofiling at Raine Island, moving around 15,000 cubic metres of sand. Viable nesting habitat has now doubled across three sand reprofiling operations between 2014 and 2019 which have moved around 40,000 cubic metres of sand.	■
	COMPLETE VALUE AND LEVEL OF SERVICE ASSESSMENTS FOR SIX ISLAND NATIONAL PARKS OR COMMONWEALTH ISLANDS	Value and level of service assessment reports were completed for 10 protected areas: Raine Island and Capricornia Cays national parks scientific; Capricornia Cays National Park; and Lizard, Possession, Whitsundays, Gloucester, Lindeman, Molle and Repulse island national parks. The Raine Island report has been approved with the endorsement of First Nations people, the others have been approved as interim reports until First Nations peoples' endorsement is obtained.	■
	100 PER CENT OF MOORINGS AND REEF PROTECTION MARKERS (RPMS) ARE INSPECTED AND REGULARLY MAINTAINED - MOORINGS AT FOUR MONTHLY INTERVALS AND RPMS ANNUALLY	100 per cent of 279 moorings and 269 reef protection markers were inspected at the required intervals.	■

	PERFORMANCE INDICATOR	RESULTS 2019-20	
DELIVERING CONSERVATION ACTIONS	COMMENCE DELIVERY OF ACTIONS IDENTIFIED THROUGH THE REPORT ON THE PROGRESS OF BA11 IN THE REEF 2050 LONG TERM SUSTAINABILITY PLAN TO PROTECT AND MANAGE SEABIRD BREEDING SITES	Delivery of the report's actions has commenced to fill legislative gaps in protection including: publishing restricted access area notices for Mast Head and Erskine islands on the Department of Environment and Science website; installing a restricted access area sign at Sisters Island; and recommending additional islands for inclusion in the Nature Conservation (Protected Areas Management) Regulations schedule of minimum aircraft flying heights.	■
	100 PER CENT OF NATIONAL PARK (CAPE YORK PENINSULA ABORIGINAL LAND (NP(CYPAL)) MEETINGS ATTENDED	100 per cent of meetings held were attended. Some meetings were postponed due to COVID-19 restrictions and sorry business.	■
	90 PER CENT OF TRADITIONAL USE OF MARINE RESOURCE AGREEMENT (TUMRA) MEETINGS ATTENDED	100 per cent of meetings that the program was invited to were attended. The program is not invited to all TUMRA meetings held.	■
	HISTORIC HERITAGE INSPECTIONS UNDERTAKEN OF COMMONWEALTH ISLANDS (DENT AND LADY ELLIOT ISLANDS AND LOW ISLES) AND ISLAND NATIONAL PARKS (RAINE, MAGNETIC, PERCY AND CURTIS ISLANDS)	Inspections were completed on Magnetic, Raine, Dent and Lady Elliot islands, Low Isles, and Cape Capricorn (Curtis Island). The inspection on Percy island was deferred due to COVID-19 restrictions and is scheduled to be completed in August 2020.	■
CHECKING FOR CHANGE	620 REEF HEALTH AND IMPACT SURVEYS (RHIS) DELIVERED	1980 Reef Health Impact Surveys were completed across 196 reefs, elevated above the target by 956 crown-of-thorns starfish related RHIS and 108 coral bleaching related RHIS.	■
	75 REEFS SURVEYED FOR CROWN- OF-THORNS STARFISH	87 reefs were surveyed.	■
	ICONIC AND PRIORITY ISLANDS HAVE ANNUAL HEALTH CHECKS UNDERTAKEN (BEING HINCHINBROOK, WHITSUNDAYS AND CAPRICORNIA CAYS ISLANDS)	Health checks were undertaken on all priority parks, being Hinchinbrook, Whitsunday and Capricornia Cays island national parks and Capricornia Cays National Park Scientific. However, scheduled health checks for some key values on Hinchinbrook and Whitsunday islands were deferred due to COVID-19 restrictions on program activities. Health checks were also undertaken on Curtis Island.	■
	90 PER CENT OF THE SEABIRD AND SHOREBIRD MONITORING PROGRAM DELIVERED	91 per cent of seabird surveys were completed in the fifth year of monitoring, up from 60 per cent in 2018-19. 83 per cent of shorebird surveys were completed in the second year of reporting for shorebirds, up from 60 per cent in 2018-19. Poor weather, competing demands, delays in delivery of <i>Reef Resilience</i> and COVID-19 restrictions impeded delivery of surveys.	■
	80 ISLAND WATCH SURVEYS COMPLETED	96 Island Watch surveys completed, including 23 islands not previously surveyed.	■
RESPONDING TO INCIDENTS	100 PER CENT OF MARITIME INCIDENTS THAT OCCUR ARE RISK ASSESSED AND RESPONDED TO ACCORDINGLY	100 per cent of 94 events reported to the program were assessed and responded to accordingly.	■
	80 PER CENT OF MARITIME INCIDENTS REQUIRING A SITE ASSESSMENT OF DAMAGE ARE UNDERTAKEN	80 per cent of incidents (four of five) requiring a site assessment of damage had assessments undertaken. A site assessment of damage was not possible for the fifth incident as the exact location of the grounding site was unable to be determined.	■

	PERFORMANCE INDICATOR	RESULTS 2019-20	
WELCOMING PEOPLE	MEET SERVICE LEVEL STANDARDS FOR MARINE PARK PERMISSIONS IN ACCORDANCE WITH THE PERMISSION SERVICE CHARTER - 25 BUSINESS DAYS FOR ROUTINE ASSESSMENTS AND 50 BUSINESS DAYS FOR TAILORED ASSESSMENTS	Service level standards were met in accordance with the Permission Service Charter. The average time for decisions was 15 business days for routine assessments and 39 business days for tailored assessments.	
	60 PER CENT OF MARINE STRANDINGS REQUIRING RESPONSE ARE ATTENDED TO BY TRAINED COMMUNITY VOLUNTEERS OR INDIGENOUS LAND AND SEA RANGERS	61 per cent of strandings (142 of 234) reported were attended by trained community volunteers or Indigenous Land and Sea Rangers.	
	10 PER CENT OF VESSEL TRIPS INCLUDE ABORIGINAL PEOPLE OR TORRES STRAIT ISLANDER PEOPLE	8.5 per cent of vessel trips included a Traditional Owner or Indigenous Land and Sea Ranger. COVID-19 restrictions had a significant impact on the program's delivery of activities with First Nations people.	
	2500 PUBLIC CONTACT EVENTS WHERE FIELD STAFF ARE TALKING DIRECTLY WITH WORLD HERITAGE AREA USERS	2901 events (comprising 2434 public contact, 120 permit checks, 323 incidents, and 24 caution notices events) were recorded where field staff were talking directly with World Heritage Area users.	
	100 PER CENT OF PROGRAMMED CRITICAL AND STATUTORY INFRASTRUCTURE MAINTENANCE TASKS COMPLETED	100 per cent of programmed critical and statutory infrastructure maintenance tasks completed.	
UPHOLDING COMPLIANCE	870 DEDICATED COMPLIANCE DAYS	1052 dedicated compliance days delivered (938 vessel, 16 land based and 98 aerial), 20 per cent above the 870 day target.	
	50 PER CENT OF DEDICATED COMPLIANCE DAYS UNDERTAKEN DURING HIGH RISK ILLEGAL RECREATIONAL FISHING PERIODS	78 per cent of dedicated compliance days undertaken on weekends, public holidays, school holidays, good weather periods when winds are less than 10 knots, and at nighttime. Note: this differs from 41% mentioned in the Authority's Annual Report 2019-20 which included just those days where winds were less than 10 knots.	
	TEN PER CENT OF DEDICATED COMPLIANCE DAYS INCLUDE INDIGENOUS LAND AND SEA RANGERS	Four per cent of dedicated compliance days (41 of 1052 days) were delivered with Indigenous Land and Sea Rangers. COVID-19 restrictions had a significant impact on delivery of activities with Indigenous Land and Sea Rangers.	

	PERFORMANCE INDICATOR	RESULTS 2019-20	
UPHOLDING COMPLIANCE	FIVE PER CENT OF COMPLIANCE REPORTS SUBMITTED BY INDIGENOUS LAND AND SEA RANGERS	<p>One per cent of compliance reports were submitted by Indigenous Land and Sea Rangers.</p> <p>This performance measure will be reviewed as it does not reflect the contribution Indigenous Land and Sea Rangers have in upholding compliance in the World Heritage Area. Those Indigenous Land and Sea Rangers who have received training and are marine park inspectors work in a variety of positions within the Reef Joint Field Management Program and Indigenous Land and Sea Rangers Program and apply their traditional knowledge to World Heritage Area compliance.</p> <p>However, many tend to operate in more remote areas where there are lower levels of use and illegal activity.</p>	
	60 PER CENT OF ON WATER VISITORS HAVE ZONING MAPS AVAILABLE (PRINT OR ELECTRONIC)	67 per cent of 2434 public contact events recorded in the program's electronic Field Reporting System had readily accessible zoning information – 52 per cent through electronic chart plotters, 31 per cent through printed maps and 7 per cent through the Eye on the Reef app.	
PROGRAM INPUTS	ANNUAL TRAINING PROGRAM DEVELOPED AND DELIVERED	The annual training program was developed however COVID-19 restrictions significantly affected delivery of planned training courses.	
	15 PER CENT OF PROGRAM STAFF HAVE RECEIVED TRAINING IN SITE ASSESSMENT OF DAMAGE WITHIN THE PAST THREE YEARS	10 per cent of program staff (16 of 155 staff) have been trained within the past three years. The program was on target, with training scheduled for May 2020, however training was deferred due to COVID-19 restrictions.	
	NO LOST TIME INJURIES	The program had one fatality and eight lost time injuries. There was a total of 121 days lost time (one Authority staff member with two days lost time and seven Queensland Parks and Wildlife Service staff with 119 days lost time). Promoting a safe work culture is a high priority for the program and new position will commence in 2020-21 to provide additional support.	
	FIVE YEAR VESSEL REPLACEMENT PROGRAM IMPLEMENTED	Vessel replacement program reviewed and updates incorporated into the <i>Reef Joint Field Management Program Business Strategy 2020 to 2024</i> .	
	1600 TOTAL DAYS AT SEA	1761 total days at sea delivered aboard program vessels, seven per cent above the 1600-day target and a further increase from 1716 days in 2018-19.	
	EXPENDITURE IS WITHIN ONE PER CENT OF BUDGET ALLOCATION	Expenditure was within 1.3 per cent of budget allocation with delays in planned expenditure due to COVID-19. This is a significant improvement from eight per cent in 2018-19.	

**Further information
about the Reef Joint Field
Management Program**

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