



Australian Government
Great Barrier Reef
Marine Park Authority



Queensland
Government

REEF JOINT FIELD MANAGEMENT PROGRAM

2021

ANNUAL

REPORT

S U M M A R Y



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 (the 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 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 173 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 more than \$38 million by 2021–22, and an increase in staff from 115 to around 186 people.


In 2020–21 the program advanced 10 of the 12 key investment areas:

- maintaining essential field management capabilities
- a safe fit for purpose vessel fleet
- island restoration and supporting reef restoration
- tourism and recreation infrastructure
- enhancing compliance through vessel tracking
- enhancing compliance through increased in-park presence, public contact and education
- incident response and recovery
- technology and data management
- collaborating with First Nations people
- streamlining permissions.

This document summarises the Reef Joint Field Management Program's 2020–21 achievements in delivering the *Reef Joint Field Management Program Annual Business Plan 2020–21* and complements the *Reef Joint Field Management Program Annual Report 2020–21*.

COVID-19

While the Program's 2020–21 performance decreased from 2019–20, COVID impacted delivery of targets against seven performance indicators, with only three of those not achieved. The Program performed well to maintain delivery with the Annual Business Plan forecasting the potential for COVID to impact delivery of 16 performance indicators.



1256 Reef Health Impact Surveys were conducted in 2020-21

2020-21 FINANCE SUMMARY

The Australian and Queensland governments allocated funding of \$35,512,771 through the *Reef Joint Field Management Program Annual Business Plan 2020-21* and carryover funds to deliver field activities across the 348,000 square-kilometre World Heritage Area.

This was revised to \$35,029,879 to account for funds for *Reef Resilience* being capital-funded rather than from incoming revenue, a higher than forecast carryover from 2019-20, diesel fuel rebate and reallocations due to Program underspends. The final available funds for the program increased slightly to \$35,097,932 due to additional revenue received.

At the start of 2020-21, the Great Barrier Reef Marine Park Authority held funds of \$877,330 from the previous year's carryover and the Queensland Parks and Wildlife Service held funds of \$255,157.

Additional revenue of \$921,117 (with a general recoveries adjustment of \$557) was received by the joint Program in 2020-21, including \$260,000 from the Authority for additional crown-of-thorns starfish surveys, a \$300,000 contribution from the Curtis EMP funds towards completion of the *Reef Guardian*, \$103,500 in permit fees, \$166,803 diesel fuel rebate, \$76,243 from sale of vessels and equipment and \$15,128 in rent.

The Reef Joint Field Management Program expenditure of \$33,879,758 was within 3.3 per cent of the budget allocation. While this is a decrease from within 1.3 per cent in 2019-20, it remains an improvement on 8 per cent in 2018-19, particularly given COVID impacts on delivery.

At the end of 2020-21, Queensland Parks and Wildlife Service held funds of \$436,691 and the Great Barrier Reef Marine Park Authority held funds of \$781,483 on behalf of the Reef Joint Field Management Program.

The Program also received funding from other sources that contributed to field delivery in 2020-21, including:

- Australian Government funding for the Reef Islands Restoration Projects and the GBR Green Turtle Research Program
- Queensland Government funding for continued development of the Ngaro walking trail on Whitsunday Island
- corporate sponsorship and Queensland Government funding towards the Raine Island Recovery Project
- offset funding for Queensland and Australian government approvals associated with Curtis Island Liquid Natural Gas projects
- Queensland and Australian government funding for Magnetic Island Master Plan projects
- 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.



1745
vessel days at sea
delivering the Program
priorities

Number of program staff
delivering field activity
increased 11%, up from 155
to 173 people



DELIVERING CONSERVATION ACTIONS

SAVING TURTLES removal of **41 deer** from Wild Duck Island and **131 pigs** from Curtis Island **protecting vulnerable flatback turtle nesting habitat**

ERADICATING PESTS pig control on Hinchinbrook Island improving key value wetlands and **50% reduction of prickly pear** in Double Cone Island habitats

IDENTIFYING KEY PARK VALUES 3 island parks had key values, condition and trend identified

MAINTAINING HEALTHY ISLANDS 52% of island parks within recommended fire prescription up from 51%, including 99% of Protection Zones

REDUCING PERMIT COMPLEXITY accrediting the Commonwealth *Whitsunday Plan of Management 2017* for the State marine park

PROTECTING HISTORIC HERITAGE completion of infrastructure works on the Assistant Lighthouse Keepers Residence at Low Isles

PROTECTING CULTURAL HERITAGE targeted removal of **43 goats** on Hook Island, protecting Nara Inlet rock art

PROTECTING CORAL AND SEAGRASS 312 moorings and 269 reef protection markers inspected and maintained

PROTECTING ISLAND VALUES gazettal of the Raine Island National Park (Scientific) Management Statement **developed with the Wuthathi People and Meriam Nation People**

TRIALLING REEF RESTORATION reef stars and Coralclips® installed more than 200m² of reef habitat at Green Island

CHECKING FOR CHANGE

REEF HEALTH 1256 in-water surveys across 178 reefs

ENSURING EARLY DETECTION 3196 manta tow surveys monitor reefs for crown-of-thorns starfish, covering 617km of reef-margin across the World Heritage Area

KEEPING TABS ON SEABIRDS 273 bird surveys at 174 locations identifying 113 species, including the first confirmed breeding of New Caledonian fairy terns at Thomas Cay

UNDERSTANDING POPULATIONS satellite tracking loggerhead turtles to investigate impacts on population recovery

WATCHING ISLANDS health checks on two priority island parks to check condition of key values and 90 Island Watch surveys

IMPROVING KNOWLEDGE 288,775 high resolution aerial images taken of beaches to inform nesting density and breeding distribution of northern GBR green turtle population

RESPONDING TO INCIDENTS

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

MONITORING REEF THREATS aerial surveys in the Far North during higher risk months and regular checks of conditions, forecasts and modelling

INCREASING CAPACITY TO RESPOND training 17 Program staff in use of oil spill evidence collection kits, 15 staff in Shoreline Assessment and Cleanup Technique and 80 community members, Gidarjil rangers and DES Wildlife officers in Oiled Wildlife training

PROTECTING ENVIRONMENTS mitigating risk associated with 65 maritime events, including 24 groundings and 13 sinkings

ASSESSING DAMAGE in-field response to 1 incident to assess damage to the WHA

WELCOMING PEOPLE

COMMUNICATING WITH WORLD HERITAGE AREA USERS 2835 contacts with users while on patrol

ENCOURAGING STEWARDSHIP volunteers and Indigenous Land and Sea Rangers responded to 68% of marine strandings and 5760 hours delivered for island weed control

CREATING NEW VISITOR OPPORTUNITIES completion of Whitsunday Island's 29km multi-day Ngaro Trail and upgrades to boardwalk from Tongue Point to Betties Beach, Curtis Island's 20km multi-use trail network and Magnetic Island's Forts carpark redevelopment and rebuild of two walking tracks

ENGAGING THE COMMUNITY 77 social media posts; 4 social media videos; 21 Reef health posts; first issue of 'Insight stories' e-magazine; 6 joint media releases

ENABLING SUSTAINABLE USE decisions made on 319 joint marine parks permit applications, 37 state marine park and 54 national park permit applications

KEEPING VISITORS SAFE Sharksmart messaging installed on public moorings and offshore buoys around North West Island and a Special Activity Notice declared

WORKING WITH FIRST NATIONS PEOPLE

MANAGING COUNTRY TOGETHER 3 marine parks zoning education and awareness campaigns held in Yeppoon, Gladstone, and Green Island

INVESTING IN PEOPLE work placements established with Darumbal, Wulgurukaba and Gidarjil rangers focused on mentoring, upskilling and sharing of knowledge

EXPANDING INCIDENT RESPONSE training 31 Indigenous rangers in marine parks incident management and response

RESPECTING COUNTRY Cultural Awareness Protocol videos produced for the Kuuku Ya'u Kanthanampu Aboriginal Corporation and Lama Lama Aboriginal Corporation

UPHOLDING COMPLIANCE

IMPROVING COMPLIANCE 4 education and awareness campaigns using targeted marketing strategies

PROTECTING YOUR PATCH WHA users provide 59 compliance incident reports of illegal activity

PROTECTING REEF SPECIES 1059 dedicated compliance days to deter illegal activity – 930 vessel, 17 land and 112 aerial

UNDERSTANDING REEF USE 837 compliance days undertaken during high-risk illegal recreational fishing periods

PROMOTING INDUSTRY STEWARDSHIP tracking of more than 1000 commercial fisheries vessels leads to 49 offences prosecuted and five infringement notices and 62 advisory letters sent

IMPOSING CONSEQUENCES FOR ENVIRONMENTAL HARM 75 court prosecutions, 77 infringement notices, 44 caution notices, 679 advisory letters, and 65 warning notices

ENCOURAGING COMPLIANCE AWARENESS engaging with 1300 Indigenous rangers and Traditional Owners to encourage compliance reporting and manage land and sea country together

STRENGTHENING PARTNERSHIPS five fee-for-service arrangements with First Nations groups

BUILDING CAPACITY assisting Lama Lama, Giringun, Yirrganydji and Jabalbina Indigenous Land and Sea Rangers to obtain their coxswains qualifications

IMPROVING WORKING RELATIONSHIPS establishment of an Indigenous Working Group to align business and optimise First Nations People time and knowledge



QPWS rangers undertook a successful fire season in 2020, lighting earlier in the season and achieving cooler mosaic-style burns

2020-2021 HIGHLIGHTS



DELIVERING CONSERVATION ACTIONS

The Program delivers conservation actions to protect and recover important natural and cultural values, including coral reefs, seagrass meadows, mangrove forests, coral cays, continental islands, wetlands, threatened species and cultural heritage.

FIRE MANAGEMENT

Fire management on island protected areas is critical to ecosystem health and the protection of life, property and cultural values. In 2020-21 the Program undertook 23 planned burns covering 7234 hectares across 16 protected area islands in the World Heritage Area, achieving 100 per cent of the Regional Priority Burn Program, with further planned burns also taking place. This is a significant increase in the total area burnt from 3028 hectares in 2019-20. Comprehensive planning ensured systematic and early burning at optimal times during the year.

A detailed review of fire zones and fire scar mapping in Flame led to improvements in mapping burnt areas and the better identification of fire-dependent vegetation. This will inform improved fire management into the future.



An effective and safe workforce is essential to the successful delivery of the Program



Monitoring of the Reef Stars project at Green Island is informing the development of another installation at Bait Reef in the Whitsundays

REEF RESTORATION AND INTERVENTION

The Reef Joint Field Management Program continues to deliver the *Reef Blueprint's* recommendation for active localised reef restoration. The Green Island Mars Reef Stars project initiated in 2019–20 in collaboration with Traditional Owners, Mars Sustainable Solutions, the Sydney University of Technology and local tourism industry progressed in 2020–21 with 'reef stars' and 'Coralclips®' installed over more than 200m² of fringing reef habitat at Green Island. The project is providing many opportunities to learn about and develop reef rehabilitation concepts and tourism operators are using the rapidly recovering site to educate visitors on reef conservation. The learnings from this project have informed the development of a new reef rehabilitation project for Bait Reef in the Whitsundays to restore a popular dive and snorkel site that has been heavily impacted by

cyclones and crown-of-thorns starfish. Installation of 'reef stars' and 'Coralclips®' at Bait Reef will be undertaken in 2021–22.

The Program continues to support monitoring of the results of earlier reef intervention initiatives across the World Heritage Area. Monitoring by James Cook University at Manta Ray Bay has shown more than 320 individual corals from 13 genera have recruited to the coral bommies that were returned to the water following Cyclone Debbie in 2017 and grazing fish are keeping the algae growth low. At Magnetic Island, monitoring by James Cook and Southern Cross universities indicate a threefold increase in coral recruitment in fringing reef areas that were cleared of macroalgae and subject to coral larvae enhancement trials in 2019–20.



Successful germination of *Corymbia clarksoniana* was noted for the first time on St Bees Island after a long-running pest control program targeting goats, lantana and introduced wallabies

PEST MANAGEMENT

Targeted pest management continued in 2020–21 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 showing significant progress following confirmed eradication of goats in 2018-19. Lantana control at three sites in collaboration with Central Queensland University using combined herbicide and fire is progressing well with monitoring indicating lantana cover has decreased significantly at Shark Point. To reduce grazing pressure, 214 wallabies were removed with monitoring showing a continued increase in the recruitment of native grasses and, for the first time the successful germination of *Corymbia clarksoniana*.

The North West Island mice eradication project is well advanced with baiting completed in August 2020 and monitoring currently in progress. Mice are a significant threat to seabirds that 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 enabled post-baiting monitoring. No live mice have been detected to date.

Control of feral animals continues on Curtis Island with aerial shooting and ground control removing five cattle, 131 pigs, four wild dogs and one fox. These control activities enable recovery of the marine plain which supports critically endangered Capricorn yellow chats and reduces disturbance to vulnerable flatback turtle nesting sites,

with monitoring showing no nest predation for a third consecutive 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 2020–21 the marine plain experienced its fourth consecutive year of drought conditions causing *Schoenoplectus* wetlands, the key chat breeding habitat, to remain dormant and breeding success to be relatively low.

An emergency response was initiated for the yellow crazy ant detection at Shute Harbour in 2018-19, where the infestation is still active. The Program has strengthened its ongoing biosecurity measures to prevent the ants from spreading to the Whitsundays' island national parks and conducts regular surveillance at key islands to check for presence of new pest ants. None have yet been identified but yellow crazy ants have been detected on Hamilton Island, increasing the risk for island national parks.

Protection of the largest rookery of the east coast population of vulnerable flatback turtles is in progress with the Program removing 41 deer from Wild Duck Island. An extensive camera monitoring network has been established by the Department of Agriculture and Fisheries under a collaborative research project with data indicating around 28 deer remain on the island and no disturbance to turtle nests. Removal of deer and will continue in 2021–22.

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.

Technical Support staff visit
Keswick Island to better
understand the condition of key
values and threats impacting them




VALUES-BASED MANAGEMENT FRAMEWORK

Implementation of the values-based management framework for protected areas continued with the completion of the Raine Island National Park (Scientific) Management Statement and Resource Information Document together with the Wuthathi People and Meriam Nation People. The management statement was gazetted in March 2021. Value and level of service assessment reports were also completed for eight island protected areas, Ma'alpiku Island, Mitirinchi Island, Piper Islands, Wuthara Island and Marpa national parks (Cape York Peninsula Aboriginal Land (CYPAL)); Keppel Bay Islands National Park (Scientific); and Keppel Bay Islands and South Cumberland Islands 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. Together with the Wulgurukaba People, through the Yunbenun Advisory Group, the Program also progressed the development of a Magnetic Island National Park Management Statement with workshops and refinement of the key values of the park.

Work continued developing values inventories and assessments for Broad Sound Islands and Percy Isles national parks; Middle Percy Conservation Park; and Flinders and Howick groups national parks (Cape York Peninsula Aboriginal Land); with work to continue in 2021–22.

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 drafted and recorded in the Queensland Parks and Wildlife Service's electronic FLAME system for five parks including South Cumberland Islands, Broad Sound Islands, Possession Island and Percy Isles national parks and Middle Percy Island Conservation Park. Draft pest thematic strategies were developed for five parks including Green Island, Barnard Island Group, Broad Sound Islands and South Cumberland islands national parks and Wuthara Island National Park (CYPAL). Draft monitoring and research strategies were prepared for three parks including Green Island, Molle Islands and Lizard Island national parks.



Hatching success of eggs at Raine Island was highest in 2020-21 at 74.4% across the island with reprofiled areas showing greater success than the unmodified areas

RAINE ISLAND RECOVERY PROJECT

Species recovery work continued on Raine Island in the project's sixth and final year of funding for Phase 1. Collaboration with the Wuthathi and Meriam Nation (Ugar, Mer, Erub) Traditional Owners has been crucial to the success of the project, which received a highly commended in the 2021 Queensland Reconciliation Awards. In 2020-21 Traditional Owners were employed as rangers on each trip to the island with 114 person-days delivered in the field. The Program's recovery activities are delivered consistently 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.

The area of viable turtle nesting habitat on the island has doubled following the three successful beach reprofiling exercises in 2014, 2017 and 2019. Assessments in 2020-21 show that despite minor lowering of the height behind the berm, these areas are retaining their profiles. This indicates the reprofiling works will have long-term benefits. Turtle monitoring revealed a very low-density nesting season with approximately 3000 turtles aggregating in December 2020 (compared with 64,000 turtles in December 2019), however, egg hatching success was the highest in recent seasons at 74.4 per cent across the island, with reprofiled areas having higher hatching success than unmodified areas.

Continued enhancement of the green turtle and bird nesting habitat was effected through removal of 187kg of beach-washed debris (predominantly plastic and rubber waste) and through a review of the cliff-top fencing, which led to a design modification and procurement of 300m of a stronger and more durable product.

The Raine Island National Park (Scientific) Management Statement was gazetted in March 2021 and was completed with the Resource Information Document in collaboration with the Wuthathi People and Meriam Nation People. Draft pest, monitoring and research and historical cultural heritage strategies will be progressed further in 2021-22 with Traditional Owner involvement.

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

Phase 2 of the project commences in 2021-22 and will be a three-year program continuing to build on the knowledge gained and works completed during the first phase. The project will align closely with the GBR Green Turtle Research Program that the Reef Authority manages within the Reef Joint Field Management Program.



Regular Reef Health Impact surveys are a frontline method of identifying emerging threats to the Reef



CHECKING FOR CHANGE

The joint Program checks for change on islands and in the water to monitor reef and island conditions 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 1256 reef health and impact surveys across 178 reefs in 2020–21, of which 479 surveys were checking for crown-of-thorns starfish.

They also completed 3196 in-water surveys to detect crown-of-thorns starfish over more than 617 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 picture of the Great Barrier Reef's condition. 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.

Subtidal seagrass monitoring was also undertaken at six target sites – Newry, Hinchinbrook and Flinders islands and Tongue, Bathurst and Lloyd bays. These Marine Monitoring Program surveys provide a broad geographic assessment of seagrass condition across the World Heritage Area.

Bird surveys identified more than 113 different species, including Masked boobies



SEABIRD AND SHOREBIRD MONITORING

The Reef Joint Field Management Program undertook 273 bird surveys at 174 locations in 2020–21, the sixth year of monitoring under the *Coastal Bird Monitoring and Information Strategy (Seabirds 2015–2020)* and the third year of reporting on shorebird surveys under the *Coastal Bird Monitoring and Information Strategy (2011)*. These surveys identified more than 113 different species including 70 adult endangered New Caledonian fairy terns, the highest total count recorded in the Great Barrier Reef, and the first confirmed breeding of the species at Thomas Cay. Significant (> 1 per cent of global and /or eastern Asian-Australasian flyway) populations of endangered eastern curlews were again observed in 2020–21.

The program continuously improves processes to ensure data capture and analysis methods are contemporary and provide useful information. A five-year review of the *Coastal Bird Monitoring and Information Strategy (Seabirds 2015–2020)* was commenced. This review will consider the 'Trends in seabird breeding populations across the

GBR' report, the RIMReP seabird report, and the acoustic monitoring reports associated with trials at Raine Island, East Fairfax Island and Capricornia Cays. The review will be completed in 2021–22. Development of a *Coastal Bird Monitoring and Information Strategy (Shorebirds)* was progressed by identifying nationally and internationally significant sites across the Great Barrier Reef. Consultation with Department of Environment and Science staff and the Queensland Wader Study Group to determine priority surveys sites and further develop the strategy will take place in 2021–22.

A collaboration with James Cook University to identify key seabird foraging sites within the World Heritage Area produced a final report 'Predicting seabird foraging on the Great Barrier Reef'. While the model described by the report works, there is high uncertainty given the low level of seabird tracking data. In 2021–22 the Program will work to identify what additional tracking data would improve the model for species at sites of concern, and to develop GIS layers to help visualisation.



Aerial images from the GBR Green Turtle Research Program provide vital data and an insight into the perseverance of a nesting turtle

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.

Monitoring of the largest flatback turtle rookery in the World Heritage Area continued in 2020–21 at Wild Duck Island for the second year after a 20 hiatus. Queensland Parks and Wildlife Service's Threatened Species Operations are also leading monitoring of nesting and foraging sites for hawksbill, loggerhead, flatback and green turtles at sites across the Great Barrier Reef including Milman Island, Howick Reefs, Port Curtis and Wreck, Heron and Peak islands.

The satellite telemetry tracking study that began in 2019–20 to investigate why population recovery for island nesting loggerhead turtles is low compared to coastal mainland nesters was completed in 2020–21. Led by Queensland Parks and Wildlife Service's Threatened Species Operations the study found that loggerhead turtles from island rookeries typically migrated northwards while those from coastal rookeries migrated equally north and south. New foraging habitats were identified and it was realised that

loggerheads foraging inshore had areas almost four times larger than those foraging in coral reef habitats. The report recommends continued satellite tracking of island nesting loggerheads to further investigate foraging habitats and threat impacts causing lower population recovery.

The Program worked with Traditional Owners to progress a four-year GBR Green Turtle Research Program across the Torres Strait and far-northern Great Barrier Reef. Project planning was completed together with the Torres Strait Regional Authority, the Gur A Baradharaw Kod Torres Strait Sea and Land Council, Lama Lama People, Wuthathi People, Kuuku Y'au People, and Prescribed Body Corporate Chairs. Traditional Owners provided cultural guidance and traditional knowledge of green turtle abundance in their Sea Country and participated in aerial surveillance flights. Aerial surveys of nesting beaches in the northern GBR and Torres Strait were undertaken to provide spatial data on the relative density of nesting, and temporal changes in breeding distribution over the last several decades. Images taken are being analysed to identify species from the tracks and estimate turtle nesting numbers. The aerial surveys will be reproduced during the 2022 nesting season.



The addition of *Reef Resilience* to the vessel fleet has increased the Program's capacity to respond to incidents



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 2020–21, the Reef Joint Field Management Program assessed the risks associated with 65 maritime events in the World Heritage Area. These events had the potential to cause environmental damage and included 24 groundings, thirteen sinkings, three spills and five unseaworthy or abandoned vessels. The assessment resulted in eight official Order to Remove notices and in-field response to two incidents. The Program removed a wreck from Archer Point and Rocky Island, which was undertaken through fee-for-service arrangements with Yuku Baja Muliku Indigenous Rangers and a 200-litre storage drum containing sump oil was removed from Snapper Island after being alerted to its location by Kuku Yalanji Indigenous Rangers. Program staff also provided oil spill response support to other lead agencies, including response to sunken trawlers in the Endeavour River and Baffle Creek.


Despite ongoing COVID restrictions on travel and gatherings, the Program worked to COVID guidelines and supported delivery of training to 17 Program staff in the use of oil spill evidence collection kits and 15 staff in Shoreline Assessment and Cleanup Techniques. Oiled Wildlife training was delivered to 80 local community members, Gidarjil Development Corporation Rangers and DES Wildlife officers in Brisbane and Gladstone to improve response capability in the event of an oil spill, funded by Reef Trust Offset.

REEF HEALTH AWARENESS

An annual pre-summer workshop was held in November 2020 to assess climate-related risks to the Great Barrier Reef including the potential for coral bleaching in 2020–21 and risks related to weather or biological factors such as COTS outbreaks. Throughout the summer months, regular checks of reef health condition (including aerial surveys of the Reef in the Far North), forecasts, modelling and reef health reporting were undertaken. During the higher risk months (November to April) weekly updates were provided to the Reef Authority, QPWS staff and key partners and weekly externally available web updates were provided for stakeholders and the public.

All summer months were warmer than average however temperatures did not cause as much coral heat stress in 2020–21 as they did in 2019–20. There were no prolonged high temperatures in 2020–21 or major cyclone disturbance, resulting in good conditions for coral recovery.

A review of the Reef Health Incident Response System and associated disease, coral bleaching, and cyclone incident response plans commenced and will continue in 2021–22.



The new Forts Junction Hub on Magnetic Island (Yunbenun) was developed in close consultation with the Wulgurukaba People



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 protection and recovery of reef, islands and species.

MAGNETIC ISLAND (YUNBENUN) VISITOR OPPORTUNITIES

Magnetic Island (Yunbenun) is a key North Queensland Region tourism destination. In 2020–21 the Program, together with the Yunbenun Advisory Group (representing the Wulgurukaba People), successfully completed a number of priority projects identified in the *Magnetic Island Master Plan 2019*.

The \$2.35 million Forts Junction Hub upgrade has transformed the Forts Walk entrance which attracts around 100,000 visitors annually. The Hub now provides safe pedestrian and vehicular access, increased parking capacity, formal bus facilities, public toilets and drinking water. The project has improved the connectivity of this site to the island's walking track network and creates an appropriate entry point for the national park. Wulgurukaba Cultural Advisors were engaged for site inductions and inspections and to inform the production of communication material. This project was funded by Growth Area and Regional Infrastructure Investment.

The Nelly Arcadia walking track upgrade was completed on budget with \$500 thousand funding. This 5.6km walking track is the main link on protected area estate between

the ferry terminal and the Forts Junction Hub. Originally handbuilt in the 1950s, the track has now been rebuilt with rock from on-site with a higher level of resilience to erosion and drainage issues. Four contract Indigenous Rangers were engaged for six months to work with contractors on walking track repair and with Program staff in general park management.

Repairs worth \$680 thousand were also undertaken on various walking tracks impacted by the 2019 Monsoon Trough Event. The funding was provided through the QRA Disaster Recovery Funding Arrangements and enabled the repair of eroded areas and remediation of safety issues.

Another \$1.5 million of funding has been secured from the Australian Government's COVID Relief and Recovery package. This, and a further \$400 thousand of Program funding will focus on further track upgrades, new track construction and development of new interpretive and communication material guided by the *Magnetic Island Master Plan 2019* and the recently finalised communications plan for Magnetic Island National Park.



Clearing the boardwalk site for the Ngaro Trail was muddy work but nothing these rangers can't handle

IMPROVING VISITOR EXPERIENCES

Visitor experiences at Curtis Island continue to improve with further development and installation of interpretive material and the Stage 2 completion of the 20-kilometre multi-use trail network, which commenced in 2018-19. This new trail takes visitors, including mountain bike riders, along wind sheared headlands and through the hinterland of the island offering outstanding views. Curtis Island is now the second island in the World Heritage Area to offer mountain-biking and is an important addition to the experience offered on the South Molle Island multi-use trail. The trail was funded through the Curtis Island Environmental Management Precinct offset funding.

On Whitsunday Island, the Program completed construction of the Ngaro Trail, a 29-kilometre multi-day walking trail from Tongue Point to Whitehaven Beach on Whitsunday Island which commenced in 2018-19. The route for the trail was devised with Traditional Owners as on-site cultural advisors, to minimise potential impacts on Indigenous heritage values. Work will begin in 2021-22 on the development of the camping nodes for the trail which are due for completion in 2022-23. Development of the Ngaro Trail is supported by significant funding from the Queensland and Australian governments. Also, on Whitsunday Island, visitor access has been improved at one of the most popular destinations in the region with the upgrade and widening of the boardwalk from Tongue Point to Betties Beach, completed in 2020-21 and Program funded.

Campground and day-use area upgrades at North West Island that commenced in 2018-19 were completed with the construction of three new accessible amenities buildings to replace old amenities. The new buildings are elevated to minimise impacts on key-value nesting turtles and shearwaters. These upgrades were funded by Reef Trust Offsets.

Planning for new Program-funded visitor and ecotourism opportunities on World Heritage Area islands commenced in 2020-21, with on-ground work to take place in 2021-22. New and upgraded visitor facilities, including toilets will be installed at Goold and Newry islands, and a new shade shelter will be constructed at Green Island. Planning continues for a new short walking track at Yanks Jetty at Orpheus Island.

ASSESSMENTS AND PERMITS

In 2020-21, the joint Program assessed and made decisions on 319 Commonwealth and Queensland Marine Parks, 37 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 2020-21 was 1459 permits comprising 5408 permissions, an increase from 1437 permits comprising 4664 permissions in 2019-20.

The Program helped improve the established joint marine parks assessment and permit framework by advancing an increasing risk-based approach to streamline processes. Program staff are undertaking a review to reduce the number of standard joint marine park permit conditions applicable to tourism, facility and barge permit templates and have finalised the last routine joint permit (for education programs). Joint marine park permissions management tools are being developed and a draft joint Tourism Management Action Strategy focusing on contemporary tourism management tools was released for public comment, with the final strategy due for completion in 2021-22.



Direct contact with the public is vital to encouraging stewardship and voluntary compliance

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.

The Reef Joint Field Management Program recorded 2835 public contact moments in 2020–21, a two per cent decrease from 2019–20. 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 92 per cent of 2454 users having maps available—61 per cent use chart plotters, 23 per cent use printed maps and 20 per cent use the Eye on the Reef App. This is a significant increase from 67 per cent of 2434 in 2019–20 when just 7 per cent used the Eye on the Reef App. *Note: some visitors used more than one method so a total of individual methods is greater than 100 per cent.* Despite many people now preferring electronic maps, printed maps are still important and 95,900 maps were printed for distribution to help visitors to the marine parks understand where they are boating and what's allowed.

The Program recognises the invaluable contribution volunteers make to the protection of the World Heritage Area. In 2020–21 the volunteer marine animal strandings program benefited from the provision of new stranding

response equipment; distribution of new bumper stickers to advertise the DES Hotline for reporting strandings; and strandings training delivered to 42 people from Mandubarra Land and Sea Inc, Cairns Turtle Rehabilitation Centre and Yirrganydji Land and Sea Rangers and Team Turtle Central Qld. Volunteers responded to 68 per cent of reported marine strandings in 2020–21, up from 61 per cent in 2019–20.

Sharksmart messaging was employed at North West Island with the Queensland Department of Agriculture and Fisheries to minimise health and safety risks to visitors in the area. Messaging was installed on public moorings and two offshore buoys and signs will be installed on the island 2021–22. By Special Activity Notice under the Marine Parks Regulation 2017, human behaviours that attract sharks, such as processing fish products, dumping fish scraps and cleaning fish processing equipment has been declared a special activity and may not be undertaken within a specified area around North West Island.

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. In 2020–21 Program staff attended four recreational user-focused events, including outdoor expos and fishing competitions in Townsville, Cairns, Cooktown and Gladstone and engaged with 1271 recreational users of the World Heritage Area encouraging best practice and stewardship of the Great Barrier Reef.



Vessel based compliance patrols are critical to minimising the effects of illegal fishing on WHA values

UPHOLDING COMPLIANCE

Illegal fishing is one of the highest direct risks to the World Heritage Area. During 2020–21 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 2020–21, there were 1059 days dedicated to compliance patrols, 16 per cent higher than the 910-day target — 930 days on vessels, 17 land-based days and 112 days aerial — 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, which resulted in 8 incidents of suspected illegal activity in 2020–21. For a fourth consecutive year, the number of dedicated days remains above 900 days.

Seventy-nine 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.

VESSEL TRACKING

Since 1 January 2020, all commercial fishing vessels operating in the World Heritage Area have been required to operate vessel tracking units. In 2020–21, more than 1000 commercial fishing vessels were monitored to detect non-compliance and gather intelligence to inform surveillance activities. There were 49 offences prosecuted from 26 investigations (some were from detections in 2019–20) which resulted in \$64,550 in fines, in addition to five infringement notices (\$12,888 in fines) and 62 advisory letters.

CONSEQUENCES FOR ILLEGAL ACTIVITY

There were 1323 possible offences reported in 2020–21. Illegal recreational fishing comprised 62 per cent of these offences, a 10 per cent increase from 2019–20 and a continuation of the upward trend in recreational fishing offences since 2012-13. These reported offences resulted in 77 infringement notices (\$147,290 in fines), 44 caution notices, 679 advisory letters, 65 warning notices and 75 court prosecutions (\$140,210 in fines) to provide an effective deterrent to further illegal activity.

COMMUNITY AWARENESS

The Program continues to invest in community education and awareness to improve recreational fishing compliance. Four media campaigns in 2020–21 focussed on marine park zoning and the Eye on the Reef App. Advanced marketing strategies profiled and targeted recreational fishing audiences at boat ramps and through advertising on weather sites, web browsers and social media feeds. The September campaign with 22 media mentions reached potentially 121,872 people. The December campaign resulted in website zoning pages receiving 40,779 views and in April floor decals and corflute signs were used at selected boat ramps with QR codes encouraging users to download the Eye on the Reef App. In June the Program again focused on the Eye on the Reef App and promoting how-to chart plotter videos showing users how to access zoning information.

Improving incident response
through training Indigenous
Land and Sea Rangers



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. 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.

BUILDING WORKING RELATIONSHIPS

The Program has a number of established and emerging arrangements with First Nations people and this will continue to expand. ILUA requirements were implemented with Raine Island, Magnetic Island and Port Curtis First Nations People, through regular meetings and workshops, employing Traditional Owners and delivering on-ground works together. The Yunbenun Advisory Group was established in 2020–21 to work with QPWS on the management of Yunbenun (Magnetic Island) and the Program assisted Gidarjil Development Corporation (under MOU arrangements) to project manage and procure their new 10.8m vessel Guardian Warrior which was launched by the Reef Authority's Chair Dr Ian Poiner in November 2020.

To align business and optimise the use of First Nations people valuable time and knowledge, the Program established a Reef Joint Field Management Program Indigenous Working Group that will meet quarterly with people attending from various teams with the Reef Authority and QPWS. The draft Indigenous Partnerships Strategy was further progressed to guide opportunities to increase First Nations cultural expertise and strengthen relationships and is due for completion in 2021–22.

SHARING KNOWLEDGE

The Program continues to create opportunities to share knowledge with and learn from First Nations People. Two Cultural Awareness Protocol videos were produced with the Kuuku Ya'u Kanthanampu Aboriginal Corporation and the Lama Lama Aboriginal Corporation highlight respectful ways to visit Country. More videos are in development with other groups and will be progressed in 2021–22. A cultural heritage protocols guide to assessment and decision making for commercial filming applications at Rainie Island NP (Scientific) was also developed in collaboration with Meriam Nation and Wuthathi people. The videos and protocols guide will ensure Program staff are aware of and respect First Nations peoples' traditions and customs when working within their respective Land and Sea Country.

INDIGENOUS RANGER TRAINING

Marine Parks incident management and response training was provided in April and May 2021 to 31 Indigenous rangers that had previously participated in Certificate IV in Government Investigations (Statutory Compliance) training with the Program. The training focused on the long-term target to expand Traditional Owner engagement and involvement in the delivery of field management activities.

Compliance awareness (including Eyes and Ears training) and mentoring was provided to 41 Traditional Owners and Indigenous Land and Sea Rangers across the WHA to raise awareness and encourage reporting of offences. This was a reduction from previous years due to COVID limitations on travel. Indigenous Land and Sea Rangers and First Nations people and organisations submitted 52 incident and information reports in 2020–21, actively contributing to compliance management and education on their respective sea country. Funding provided through the Australian Government's Capacity Building for Indigenous Rangers Strategy made this training possible.

The Program also mentored Giringun and Yirrganydji rangers on the use of the Field Reporting System (FRS) and assisted Lama Lama, Giringun, Yirrganydji and Jabalbina Indigenous Land and Sea Rangers in obtaining their coxswains qualifications through mentoring and accruing sea time aboard Program vessels.

SUPPORTING FIRST NATIONS PEOPLE ON COUNTRY

The Program supports First Nations people to return to Country and deliver field management activities together. First Nations people from outside the Program spent 318 person-days on field management vessels in the northern GBR and 106 person-days in the Southern GBR. This is a decrease from 345 and 149 days in 2019–20 due to COVID restrictions on travel within Queensland, particularly to and from remote communities.

The Program continued to support existing and develop new formal arrangements, including work placements, contracts, works and services agreements and Memorandums of Understanding to help build the capacity of First Nations People to work on Country and deliver a range of field activities. The Program continued to work with the Giringun Land and Sea Rangers for a seventh successful year to undertake pest control, track and infrastructure maintenance, bird surveys, weather station monitoring, seagrass monitoring and compliance. Work placements were developed with Darumbal, Wulgurukaba and Gidarjil Indigenous Land and Sea Rangers to build working relationships and on Country field management skills while Yirrganydji Land and Sea Rangers were contracted to complete monthly seabird counts at Michaelmas Cay for a second year.

The Program supports Traditional Owners working on and caring for Country



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

Construction of the new 24-metre vessel *Reef Resilience* was completed with the Program taking delivery of the vessel in Gladstone in late March 2021. Construction of 17-metre *Tamoya II* is near completion and due to enter service at Airlie Beach in early 2021–22. The Program entered into a new contract to build a new 19-metre barge to be based in Townsville with construction to commence in 2021–22 and delivery expected in 2022–23.

Field management vessels spent 1745 days at sea during 2020–21, a 17 per cent increase from 1481 days in 2016–17 before expansion commenced. The 24-metre vessel *Reef Ranger* spent 214 days at sea in its seventh year of operation, less than the planned 262 days due to five days of unplanned downtime and trips being adjusted and sometimes cancelled due to COVID restrictions. The new vessel *Reef Resilience* delivered 71 days at sea in its first year of operation with 11 days unplanned downtime.

WORKFORCE

Expansion of the Program in 2020–21 has seen a further 11 per cent increase in the number of field management funded staff, up from 155 to 173. Completion of recruitment to new positions will take place in 2021–22, the final year of the five-year expansion.

Well-trained staff are essential to the delivery of an effective, efficient and safe Reef Joint Field Management Program. In 2020–21 180 staff received training across 32 different courses. Delivery of the highly successful Field Management Foundation Program training course was deferred in 2020–21 due to COVID restrictions. Two courses are planned for 2021–22 to accommodate the increase in new Program staff.

TECHNOLOGY

The joint Program continues to explore and deliver technology improvements to enable more efficient and effective monitoring and reporting. In 2020–21 field staff captured 1378 trips, 3047 activities and 6495 events on the Program's Field Reporting System, an electronic system that records details of field management trips.

The Program entered into a three-year collaborative agreement with the Australian Institute of Marine Science to pursue benthic survey technologies. The work focuses on development of a ReefScan package, an industrial camera with depth sensors that will provide imagery and 3D spatial metadata, including the associated data management and machine learning analysis. The intent is that the camera will be mounted on small vessels, towed platforms or autonomous underwater and surface vehicles, depending on the need. These new survey technologies will provide improved and safer methods for undertaking RHIS, SAD, COTS surveys and manta tow. Joint field trials were undertaken with AIMS and Program staff to trial the ReefScan camera and also frames for mounting multiple cameras to capture a wider area.

The Program also developed a draft Technology Transformation Program Strategy to guide direction and investment in technology that will deliver the Program's most immediate and significant benefits. The strategy is due to be finalised in 2021–22.



Eradication of mice on North West Island will protect Wedge-tailed shearwater chicks from predation

RESULTS AGAINST PERFORMANCE INDICATORS

Performance indicators highlight the Program’s achievements against the *Reef Joint Field Management Program Annual Business Plan 2020-21*, 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.

In 2020-21, the Program had 39 challenging performance indicator targets, of which 24 (62 per cent) were achieved; six (15 per cent) were not achieved but demonstrated significant progress and nine (23 per cent) were not achieved or had no significant progress. While the Program’s 2020-21 performance decreased from 2019-20, COVID impacted the delivery of targets against seven performance indicators. The Program performed well to maintain delivery with the Annual Business Plan forecasting the potential for COVID to impact the delivery of 16 performance indicators.

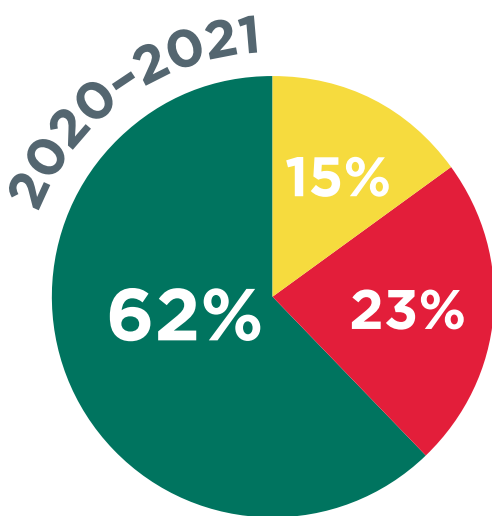


Figure 1: Percentage of performance against indicator targets 2020-21.

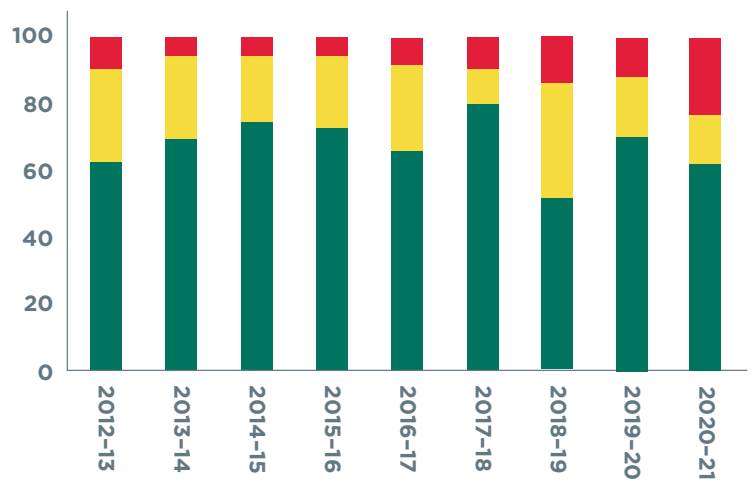





























Figure 2: Program performance over nine years.















	PERFORMANCE INDICATOR	RESULTS 2020-21	TARGET
DELIVERING CONSERVATION ACTIONS	90 PER CENT OF THE REGIONAL PRIORITY BURN PROGRAM DELIVERED	100 per cent of the 2020 regional priority burns were completed (5 burns – Curtis Island EMP mitigation; Whitehaven Beach hazard reduction; Curtis Island broadscale aerial; Magnetic Island strategic fireline; St Bees Island grasslands and Shark Point). One of the burns partially achieved its objective, all others fully achieved their objectives	 Achieved
	90 PER CENT OF THE PROTECTION ZONE AREA IS WITHIN TREATMENT PRESCRIPTION	99 per cent was within treatment prescription (at 31 December 2020) through targeted controls, a systematic review of fire zoning and implementing values-based management framework fire strategies	 Achieved
	60 PER CENT OF CONSERVATION ZONES ARE WITHIN BURN PRESCRIPTION	52 per cent of Conservation Zones are within burn prescription. Improved mapping in 2020–21 has led to a more accurate representation of actual burnt areas by removing unburnt areas within the planned burn mosaic and removing areas that were incorrectly identified as fire dependent. These improvements have reduced the reported total area burnt in comparison to previous years but the Program has actually performed well to achieve 52 per cent	 Significant progress towards target
	90 PER CENT OF PRIORITY PEST PROJECTS ACHIEVE VALUES-BASED MEASURABLE OBJECTIVES	95 per cent of strategic pest projects achieved values-based measurable objectives	 Achieved
	DEVELOP AND INITIATE A SISAL HEMP CONTROL PROGRAM ON MORRIS ISLAND	Complexities in engagement with the Umpila Traditional Owners led to delays and a re-evaluation of the project. Planning for an amended control program on Morris Island and scoping of another rehabilitation project on a separate island has begun	 Not achieved
	IDENTIFY THE CONDITION AND TREND OF PISONIA FORESTS ON FAR NORTHERN GBR ISLANDS TO INFORM RESTORATION	A desktop analysis to identify Pisonia forest on islands north of Townsville has been completed with on-ground surveys planned in 2021–22 to assess conditions, trends and threats	 Significant progress towards target
	COMPLETE FINAL OR INTERIM VALUE ASSESSMENTS FOR TWO ISLAND NATIONAL PARKS OR COMMONWEALTH ISLANDS	Value assessment reports were completed for eight protected areas—five are final reports approved with First Nations peoples endorsement, and three are interim reports until First Nations peoples endorsement is obtained	 Achieved
	90 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 moorings (312) and RPMS (269) were inspected at required intervals	 Achieved

	PERFORMANCE INDICATOR	RESULTS 2020-21	TARGET
DELIVERING CONSERVATION ACTIONS	DELIVER 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	Six globally significant seabird sites were submitted for consideration as Key Biodiversity areas. The recommendation was made for further islands to be subject to minimum aircraft flying heights. Review completed of marine park permit conditions identifying restrictions to be required as conditions. Thirteen key seabird sites identified outside of protected area estate that would benefit from protection	 Achieved
	INSPECTIONS UNDERTAKEN OF HISTORIC HERITAGE ON COMMONWEALTH ISLANDS (DENT AND LADY ELLIOT ISLANDS AND LOW ISLES) AND ISLAND NATIONAL PARKS (RAINE, MAGNETIC, PERCY AND CURTIS)	Inspections of historical heritage were completed on all seven islands	 Achieved
	90 PER CENT OF ISLAND, MARINE AND MEGAFUNA REFERRAL GROUP FUNDED PROJECTS ARE COMPLETED WITHIN PROJECT TIMEFRAMES	Four of seven projects completed within timeframes: (1) little tern nesting protection at Bowling Green Bay Spit; (2) year 1 of a 3-year far northern inshore dolphin survey; (3) year 2 of a 2-year satellite telemetry loggerhead turtle tracking study; and (4) Green Island reef rehabilitation. Population modelling of inshore dolphins and sawfish will now be part of the RIMReP monitoring gaps project due to delays finding a suitable contractor. The Magnetic Island macroalgae project was deferred to allow for other priorities. Monitoring the population dynamics of foraging loggerhead turtles in the Capricorn Bunker Group was deferred to 2021-22 to enable the use of Program vessels	 Not achieved
CHECKING FOR CHANGE	620 REEF HEALTH AND IMPACT SURVEYS (RHIS) DELIVERED	1256 RHIS completed across 178 reefs including 479 COTS related RHIS	 Achieved
	60 DAYS CROWN-OF-THORNS (COTS) STARFISH SURVEILLANCE DELIVERED	52 days delivered. Poor weather led to the cancellation of 10 days of surveillance	 Significant progress towards target
	ICONIC AND PRIORITY ISLAND NATIONAL PARKS - BEING HINCHINBROOK, WHITSUNDAYS, GREEN, AND MAGNETIC ISLAND NATIONAL PARKS, CAPRICORNIA CAYS NATIONAL PARK AND RAINE ISLAND NATIONAL PARK SCIENTIFIC - HAVE REQUIRED HEALTH CHECKS UNDERTAKEN	Health Checks were undertaken on Whitsunday and Magnetic island national parks. Raine Island Health Checks were undertaken in July 2021. Health Checks on Capricornia Cays and Hinchinbrook were unable to be delivered due to COVID limitations on travel, unscheduled maintenance on Reef Resilience and competing priorities. Health Checks on Green Island will commence once a monitoring and research strategy is developed	 Not achieved
	90 PER CENT OF THE SEABIRD AND SHOREBIRD MONITORING PROGRAM DELIVERED	93 per cent of seabird surveys were completed in the sixth year of reporting and 100% of shorebird surveys were completed in the third year of reporting	 Achieved
	100 ISLAND WATCH SURVEYS COMPLETED	90 Island Watch surveys were completed, including 12 islands not previously surveyed. COVID limitations on travel lead to cancellation of some planned work trips resulting in a reduced number of surveys	 Significant progress towards target
	90 PER CENT OF PRIORITY NESTING AND FORAGING INDEX SITE MONITORING IS DELIVERED OR SUPPORTED BY THE PROGRAM	The Program supported or delivered monitoring at 100 per cent of priority nesting (7 sites) and foraging (2 sites) index sites within the WHA	 Achieved

	PERFORMANCE INDICATOR	RESULTS 2020-21	TARGET
RESPONDING TO INCIDENTS	100 PER CENT OF MARITIME INCIDENTS REPORTED TO THE PROGRAM ARE RISK ASSESSED AND RESPONDED TO ACCORDINGLY	100 per cent of 65 events reported to the Program were assessed and responded to accordingly	 Achieved
	80 PER CENT OF MARITIME INCIDENTS REQUIRING A SITE ASSESSMENT OF DAMAGE ARE UNDERTAKEN	50 per cent of incidents (1 of 2) requiring a site assessment of damage had assessments undertaken. A site assessment of damage was not possible for the second incident due to cyclonic activity and the likelihood of interaction with sharks and crocodiles while in-water	 Significant progress towards target
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	82 per cent of routine assessment decisions were made within 25 days, and 43 per cent of tailored assessment decisions were made within 50 business days. An increase (higher than the service charter can meet) in the number of applications for ten months of the year caused a backlog of assessments for staff. Efforts to reduce the backlog and return to within the service charter will continue in 2021-22	 Not achieved
	60 PER CENT OF MARINE STRANDINGS REQUIRING RESPONSE ARE ATTENDED TO BY TRAINED COMMUNITY VOLUNTEERS OR INDIGENOUS LAND AND SEA RANGERS	68 per cent (228 of 333) of strandings reported were attended by trained community volunteers or Indigenous Land and Sea Rangers	 Achieved
	2700 PUBLIC CONTACT EVENTS WHERE PROGRAM STAFF ARE TALKING DIRECTLY WITH WHA USERS DURING VESSEL OR LAND-BASED ACTIVITIES	2835 events recorded on the Field Reporting System — comprising 2454 public contacts, 57 permit checks, 308 incidents, and 16 caution notice events— where field staff were talking directly with WHA users	 Achieved
	100 PER CENT OF PROGRAMMED CRITICAL AND STATUTORY INFRASTRUCTURE MAINTENANCE TASKS COMPLETED	100 per cent of programmed critical and statutory infrastructure maintenance tasks completed	 Achieved

	PERFORMANCE INDICATOR	RESULTS 2020-21	TARGET
UPHOLDING COMPLIANCE	910 DEDICATED COMPLIANCE DAYS	1059 dedicated compliance days delivered across all partner agencies (930 vessel, 17 land-based and 112 aerial) to deter and identify illegal activity, 16 per cent above the 910-day target	 Achieved
	50 PER CENT OF DEDICATED COMPLIANCE DAYS UNDERTAKEN DURING HIGH-RISK ILLEGAL RECREATIONAL FISHING PERIODS (NIGHT-TIME, WEEKENDS, PUBLIC HOLIDAYS, SCHOOL HOLIDAYS, GOOD WEATHER PERIODS (WINDS < 10 KNOTS))	79 per cent of dedicated compliance days (837 of 1059 days) undertaken during high-risk illegal recreational fishing periods <i>Note: this does not include QBFP and QPWS patrols that were undertaken during good weather periods where winds were < 10 knots as this information has not been recorded in FRS, so per cent achieved would actually be even higher</i>	 Achieved
	60 PER CENT OF ON-WATER VISITORS HAVE ZONING MAPS AVAILABLE, PRINT OR ELECTRONIC (INCLUDING MOBILE APPS)	For 92 per cent of 2454 public contact events recorded in FRS visitors had access to one or more sources of zoning information – 61 per cent use chart plotters, 23 per cent use printed maps and 20 per cent use the Eye on the Reef App. This is a significant increase from 67 per cent of 2434 public contact events in 2019–20 when just 7 per cent used the Eye on the Reef App	 Achieved
	DEVELOP NEW PERFORMANCE INDICATORS TO MEASURE THE EFFECTIVENESS OF EDUCATION CAMPAIGNS AND COMMUNITY UNDERSTANDING	Work is underway to develop new performance measures	 Not achieved

	PERFORMANCE INDICATOR	RESULTS 2020-21	TARGET
WORKING WITH FIRST NATIONS PEOPLE	100 PER CENT OF NP (CYPAL) MEETINGS ATTENDED	100 per cent of meetings held were attended (around 16 meetings)	 Achieved
	90 PER CENT OF TUMRA MEETINGS ATTENDED	100 per cent of meetings that the Program was invited to were attended <i>Note: The Program is not invited to all TUMRA meetings</i>	 Achieved
	10 PER CENT OF PROGRAM VESSEL TRIPS INCLUDE FIRST NATIONS PEOPLES FROM WITHIN OR OUTSIDE THE PROGRAM	34 per cent (395 of 1159) of Program vessel trips included First Nations peoples from within or outside the Program	 Achieved
	FEE-FOR-SERVICE ARRANGEMENTS ARE IN PLACE WITH THREE DIFFERENT FIRST NATIONS GROUPS	Fee-for-service arrangements were entered into with five different First Nations groups – Giringun for delivery of a range of services, Yirrganydji for delivery of bird surveys, Yuku Baja Muliku for incident response activities, Gunggandji for Green Island casual ranger services and Lama Lama for a data entry	 Achieved
	10 PER CENT OF DEDICATED COMPLIANCE DAYS INCLUDE TRAINED INDIGENOUS RANGERS OR FIRST NATIONS PEOPLE WITHIN THE PROGRAM	16 per cent of dedicated compliance days (134 of 838 days) delivered with trained Indigenous Rangers or First Nations people within the Program. More than one third included trained Indigenous Rangers from outside the Program	 Achieved
	5 PER CENT OF COMPLIANCE REPORTS SUBMITTED BY TRAINED INDIGENOUS RANGERS OR FIRST NATIONS PEOPLE WITHIN THE PROGRAM	3.5 per cent of compliance reports were reported by or originated from Indigenous Land and Sea Ranger Groups or First Nations People within the Program. This performance indicator is not included in the ABP 2021-22, as statistics based on the volume of reports are not adequately reflecting the importance and quality of Land and Sea rangers work	 Not achieved

	PERFORMANCE INDICATOR	RESULTS 2020-21	TARGET
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. Training was delivered in critical areas to compensate for COVID delays	 Significant progress towards target
	15 PER CENT OF PROGRAM STAFF HAVE RECEIVED TRAINING IN SITE ASSESSMENT OF DAMAGE WITHIN THE PAST THREE YEARS	5 per cent of Program staff (8 of 173 staff) have been trained within the past three years. The Program was on target, however training was again deferred due to COVID restrictions on travel. Some elements of site assessment of damage training have been incorporated into recent oil spill evidence collection kit training	 Not achieved
	NO LOST-TIME INJURIES	There were 8 lost-time injuries (LTI) and 30 days lost time; all were QPWS Program staff. This is a decrease from 1 fatality and 8 LTI with 121 days lost time in 2019-20; and 11 LTI with 101 days lost time in 2018-19. Workplace health and safety has been identified as a priority project for 2021-22	 Not achieved
	FIVE YEAR VESSEL REPLACEMENT PROGRAM IMPLEMENTED	Vessel replacement program reviewed and updates incorporated into the Field Management Business Strategy 2021 to 2025	 Achieved
	1650 TOTAL DAYS AT SEA DELIVERED ABOARD PROGRAM VESSELS OR ABOARD VESSELS CHARTERED BY THE PROGRAM	1745 total days at sea delivered, 6 per cent above the 1650 day target. 1684 days aboard Program vessels (97 per cent) and 61 days aboard chartered vessels (3 per cent). Program days at sea continue to increase with expansion, from 1481 days in 2016-17, 1598 days in 2017-18, and 1581 in 2018-19, and 1716 in 2019-20	 Achieved
	EXPENDITURE IS WITHIN ONE PER CENT OF BUDGET ALLOCATION	Expenditure was within 3.3 per cent of the budget allocation, with delays in planned expenditure due to COVID and staff vacancies. While this is a decline from within 1.3 per cent in 2019-20 it remained an improvement from 8 per cent in 2018-19	 Not achieved

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

 info@gbmpa.gov.au
 www.gbrmpa.gov.au
 www.des.qld.gov.au



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