

# Our performance

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This section highlights the department's achievements and performance. It aligns with the *DES Strategic Plan 2021–25* and the *2021–22 Service Delivery Statements*.

The key objectives outlined in the *DES Strategic Plan 2021–25* are:

- Conserve and restore Queensland's unique biodiversity, heritage and protected areas
- Enable job creation, and the growth of new industries and environmental markets
- Protect World Heritage areas including the Great Barrier Reef
- Empower Queensland's youth
- Strengthen and harness Queensland's scientific excellence
- Deliver a world class environmental, heritage and biodiscovery regulatory system.

## Conserve and restore Queensland's unique biodiversity, heritage and protected areas

The Queensland Government is dedicated to conserving our unique biodiversity and our important natural, heritage and cultural values. We are committed to protecting our ecosystems and values in partnership with First Nations peoples, the stewards of Country for many thousands of years. For First Nations peoples, Country and culture are indivisible.

Much of Queensland's economic strength depends on our natural assets. Our multi-billion-dollar tourism industry relies on our remarkable natural environment. The productivity of our agricultural sector, and much of the culture and heritage of our regional communities are underpinned by healthy ecosystems. There is an increasing awareness of the value of this natural capital and the economic risks associated with its degradation.

Despite their importance, the strength and resilience of our ecosystems are under threat. Delivering conservation actions and strategies will ensure that we deliver a coherent and coordinated set of effective actions to manage biodiversity in Queensland across portfolios, local jurisdictions, landscapes, habitats and ecosystems. The Queensland Government is committed to improving the management of biodiversity, threatened species and protected areas, and safeguarding our heritage and cultural values.

## Key achievements in 2021–22

**Conserve and protect Queensland's biodiversity, threatened species, and critical natural assets and continue to grow the protected area estate. This year we:**

### **Acquisitions**

- acquired the adjoining Bramwell Station and Richardson Station, an area of 131,900 hectares, and which will be included in the Cape York Peninsula Tenure Resolution Program for tenure negotiation with Traditional Owners including additional protected areas
- purchased The Lakes, a 35,300 hectare property in north west Queensland in partnership with The Nature Conservancy and the Wyss Foundation, proposed for dedication as a new national park
- acquired a further five properties, totalling 360 hectares, for addition to existing national parks.

### **Nature Refuges**

- declared 12 new nature refuges under the *Nature Conservation Act 1992* adding 10,486 hectares to Queensland's protected areas
- awarded 82 Nature Refuge Landholder Grants to support the management and protection of significant natural and cultural values on existing nature refuges
- entered into a contract with Ecosure Pty Ltd to deliver a suite of services to existing nature refuge landholders in six bioregions across Queensland to build management capacity and to improve protection of biodiversity.

### **Policies/Strategies**

- continued implementing *Queensland's Protected Area Strategy 2020–2030*, including publishing a report card outlining highlights from the first year of implementation

- introduced into Parliament the Nature Conservation and Other Legislation Amendment Bill 2022
- continued the Great Sandy Marine Park Zoning Plan and Moreton Bay Marine Park Zoning Plan reviews and continued work to develop a contemporary marine park zoning plan review process
- commenced work to expand the Cleveland Bay declared Fish Habitat Area
- upgraded remote area power systems at Boodjamulla (Lawn Hill) National Park, Teerk Roo Ra (Peel Island) National Park, Great Sandy National Park, Diwan and Heathlands Resources Reserve; harnessing increased renewable energy, reducing reliance on energy generated by fossil fuels, and reducing our emissions footprint
- installed a renewable energy system to the grid connection at Mon Repos Turtle Centre, reducing the usage of fossil fuel generated electricity.
- successfully hosted the Koala Collab 2021 virtual conference event which brought together over 280 participants from the broader community, partner organisations and government showcasing projects and challenges relating to koala conservation.

#### ***Threatened Species/Wildlife***

- continued implementation of the *Threatened Species Program 2020–2040* including recovery programs for priority species such as koala, northern hairy-nosed wombat, greater bilby, bridled nail-tail wallaby, marine turtles and Nangur skinks
  - continued to support the bridled nail-tail management program on Taunton National Park (Scientific) resulting in the population thriving, and continued to monitor the bilby and kowari population at Astrebla Downs National Park
  - implemented the statewide aerial survey program to monitor the abundance of harvest macropods
  - continued the implementation of the internal Biodiversity Strategy with the delivery of specific actions detailed in other parts of this report such as:
    - delivered Community Sustainability Action Grants programs that support removal of invasive species
    - delivered a timely, transparent and scientifically accurate threatened species listing process based on the common assessment methodology – aligning the conservation status of wildlife with other jurisdictions in Australia
    - implemented the *South East Queensland Koala Conservation Strategy 2020–2025*
    - developed recovery actions plans to protect threatened species
  - continued delivery of the Queensland Wetlands Program including evaluation of the *Wetlands in the Great Barrier Reef Catchments Management Strategy 2016–21*; commenced development of an updated strategy; released a whole-of-system, values-based management framework and associated Aquatic Ecosystem Rehabilitation Guidelines; delivered Walking-the-Landscape workshops with regional partners to identify catchment management actions.
- Promote and connect people with national parks. This year we:**
- promoted World Heritage Areas, popular parks, hidden gems and park rangers through distribution of the Naturally Queensland e-newsletter to over 138,800 subscribers, and over 490 posts regarding national parks to our

#### ***Koalas***

- extended the existing partnership with the Queensland Trust for Nature to:
  - increase the area targeted for restoration of koala habitat under the Koala Habitat Restoration Partnerships Program
  - deliver revegetation of 105 hectares of new koala habitat
  - regenerate a further 145 hectares of existing vegetation through assisted ecosystem recovery
- continued to partner with Australia Zoo, Royal Society for the Prevention of Cruelty to Animals Queensland (RSPCA Queensland) and Currumbin Wildlife Hospital as part of the South East Queensland Wildlife Hospital Network to treat and rehabilitate sick, injured and orphaned wildlife across South East Queensland
- continued the management of eight properties acquired by the Queensland Government for the restoration of koala habitat in preparation for their transition to long-term conservation tenure
- engaged Griffith University to co-design and implement community engagement and threat mitigation initiatives in partnership with local governments to support koala conservation in South East Queensland
- progressed development of a koala sighting app on the QWildlife platform to increase the communities' capacity to contribute data to inform the planning and delivery of conservation initiatives. The app is in the User Acceptance Testing phase

- social media platforms reaching a combined audience of more than 16 million people
- issued 331,920 camping permits and 209,948 vehicle access permits for Queensland national parks and forests
- launched a new immersive education room at Walkabout Creek Discovery Centre to enhance conservation education programs for school children
- supported the tourism industry by providing fee relief to tourism operators as part of the Queensland Government COVID-19 support for the tourism and hospitality sector.

**Protect Queensland’s cultural and built heritage. This year we:**

- developed a post-contact cultural heritage strategy, to direct resource investment across Queensland’s parks and forests estate, and enhance post-contact cultural heritage management, ensuring alignment with best practice principles and indicators to ensure custodial obligations are met
- entered five new places of state-level cultural heritage significance in the Queensland Heritage Register
- completed major reviews of nine places already on the Queensland Heritage Register to ensure their information is fit-for-purpose, in agreement with the Queensland Heritage Council and place owners
- provided regular input on planning instruments to ensure the conservation of local and State heritage places
- oversaw the continued delivery of a program of conservation works to State heritage listed Newstead House and provided ongoing administrative and technical support to the Board of Trustees for Newstead House
- supported the establishment of the Queensland Heritage Advisory Panel and developed an implementation strategy to deliver on the recommendations of the final report presented to the Minister in October 2021.

**Enhance strategic land use planning in Queensland to support sustainable development. This year we:**

- recommended amendments that improved the protection of biodiversity and environmental values (including the Great Barrier Reef), coastal hazards and climate change mitigation strategies in planning schemes under the *Planning Act 2016*, *Economic Development Act 2012*, *Integrated Resort Development Act 1987* and *Sustainable Ports Development Act 2015*

- updated mapping relating to matters of state environmental significance including koala habitat; threatened species, to reflect recent reclassifications; significant marine turtle nesting sites and shorebird roosting and feeding areas
- supported and contributed to the Queensland Renewable Energy Zones development precincts which aims to develop wind energy farms throughout the state.

**Prepare for and manage bushfire and extreme weather events on Queensland Parks and Wildlife Service and Partnerships managed estates. This year we:**

- delivered 435 planned burns to about 358,157 hectares of Queensland’s parks and forests
- responded to 131 bushfires during the bushfire risk period (30 August to 3 December 2021)
- responded to the South East Queensland flooding event with Rangers assessing and closing affected parks and infrastructure. Teams were mobilised to repair affected areas, recover pontoons and clean up beaches of debris
- published the *Post-fire Assessment Report—Natural Values: 2020 Duling Bushfire, K’gari (Fraser Island), Great Sandy National Park, South East Queensland Bioregion* report and developed an action plan based on the Inspector-General Emergency Management (IGEM) recommendations
- finalised the development of the Queensland Parks and Wildlife Service and Partnerships (QPWS&P) Bushfire Management Risk Framework and commenced implementation which includes bushfire risk analysis to inform the development of priority park and forest fire strategies and planned burn programs
- continued the ongoing implementation of the recommendations from the IGEM review of wildfire response and preparedness actions after the 2019 wildfire on K’gari (Fraser Island)
- implemented Phase 2 of the Bushfire Recovery Project for priority threatened species in Great Sandy National Park – Cooloolool section, with support from the Australian Government after the 2019 South East Queensland wildfire event
- delivered competency-based fire management roles training through the department’s fire training program to 160 staff and eight First Nations Rangers. This includes the first 21 QPWS&P staff to have nationally recognised Level 2 Incident Management qualifications for bushfire management

- implemented improved reporting on the results of fauna surveys and incidental records arising from the federally funded bushfire recovery projects undertaken across Lamington, Mount Barney, Main Range and Bulburin national parks. The reports for these areas have been completed
- continued to provide regular, high resolution fire scar data for fire managers across the state, based on Sentinel-2 satellite imagery delivered via open data portals including QPWS&P.

**Partner with First Nations peoples to steward country and incorporate traditional knowledge in program delivery. This year we:**

- continued to embed the principles and values of *The Gurra Gurra Framework 2020–2026* across the business to build and strengthen partnerships with First Nations peoples and communities across the state
- entered into an agreement with Bunya Peoples' Aboriginal Corporation to deliver restoration activities and cultural burning on eight nature refuges on Wakka Wakka, Jarowair and Yuggera Ugarapul Country
- partnered with First Nations organisations in 13 additional communities to fund and employ 54 new Indigenous Land and Sea Rangers, and allocated grants to 19 First Nations organisations (representing 24 communities) for the 100 existing Indigenous Land and Sea Rangers
- supported 13 Indigenous communities with grant funding, through the Looking After Country Grant Program to undertake projects to protect and conserve natural and cultural resources
- supported the ongoing growth of the Queensland Indigenous Women's Ranger Network through funding an Indigenous ranger group to coordinate and deliver forums, training, networking, and development opportunities for women in often very remote Queensland locations
- continued to support the Queensland Indigenous Land and Sea Rangers and Junior Ranger programs which provide a diverse range of opportunities for youth to learn about country and engage with elders to create greater understanding of cultural values and knowledge
- mentored and supported Indigenous Land and Sea Ranger Groups to participate in field management activities, including the provision of dive qualification training to 23 Indigenous rangers
- supported Traditional Owners to return to Country to deliver field management activities and strengthened Traditional Owner presence on Great Barrier Reef Joint Field Management Program vessels by increasing the number of person days on vessels from 106 to 342 in the southern Great Barrier Reef (GBR) and 438 person days on vessels in the northern GBR
- converted 160,108 hectares of land in the Daintree, Kalkajaka, Hope Islands and Ngalba-bulal National Parks to national parks (Cape York Peninsula Aboriginal Land) and transferred ownership to the Eastern Kuku Yalanji people under the Cape York Peninsula Tenure Resolution Program
- agreed the creation of a 112-hectare Eastern Yalanjiwarra Nature Refuge on Aboriginal land under the Cape York Peninsula Tenure Resolution Program
- continued negotiations on three land tenure dealings for the transfer of approximately 400,000 hectares under Aboriginal ownership and the dedication of protected area estate, under the Cape York Peninsula Tenure Resolution Program
- jointly managed National Parks (CYPAL) with Traditional Owners by implementing Indigenous Management Agreements, participating in joint management meetings, developing collaborative fire and pest plans, accommodating Traditional Owners on vessel patrols, and incorporating Traditional Owners into joint work programs within the Great Barrier Reef and Marine Parks region
- celebrated ten years of joint management arrangements between the State and the Quandamooka people on Minjerribah's (North Stradbroke Island) protected areas
- implemented legislative amendments to create the Cangen-Yangan Indigenous Joint Management Area on Mulgumpin (Moreton Island)
- continued to implement the Mulgumpin (Moreton Island) Indigenous Management Agreement, and joint management arrangements over the island's protected areas
- continued to implement the Minjerribah Indigenous joint management arrangements for the maintenance and protection of cultural and conservation values on Minjerribah (North Stradbroke Island)
- managed Quandamooka Sea Country in Moreton Bay, continuing to deliver on commitments in the memorandum of understanding
- worked with ten Traditional Owner groups to manage Sea Country in the Great Barrier Reef under Traditional Use of Marine Resources Agreements

- drafted an Agreement Making Framework to guide the department in the processes of culturally appropriate agreement making and relationship building with First Nations peoples
- demonstrated recognition for First Nations peoples' connection to country by committing to new policy and departmental processes to implement section 47C of the *Native Title Act 1993*, allowing the department to disregard (by agreement) the extinguishment of native title over protected areas
- finalised and began implementing a Traditional Owner Partnerships Strategy for the Reef Joint Field Management Program to guide future collaboration opportunities with Traditional Owner groups
- used four fee-for-service agreements with Traditional Owner groups to deliver works on Country in the Great Barrier Reef
- partnered with the Wulgurukaba Traditional Owners under a works contract for a range of activities on Magnetic Island National Park, including to collaboratively deliver walking track projects and to incorporate Yunbenum Land and Sea rangers into the QPWS&P management unit on Magnetic Island
- provided 252 days employment for Wuthathi and Meriam Nation (Ugar, Mer, Erub) rangers and cultural advisors working on Country on the Raine Island Recovery Project and the Raine Island Beacon Restoration Project
- undertook ranger work placements for Traditional Owner rangers for a minimum period of six months each, with Lama Lama, Rinyirru, Mandubarra, Gunggandji-Mandingalbay Yidinji and Darumbal Traditional Owners
- produced a further two cultural etiquette videos in collaboration with Traditional Owners highlighting respectful ways to visit Country, bringing the total number of videos available to five
- provided coastal bird monitoring training to Land and Sea Rangers
- delivered Fire Crew national competency standard fire training to eight First Nations Rangers, building on the training completed by 11 First Nations Rangers in 2020–21
- delivered the Management Plan for Boodjamulla (Lawn Hill) National Park in collaboration with the Waanyi Native Title Aboriginal Corporation—registered native title bodies corporate (RNTBC)
- delivered the Currawinya Management Plan co-authored by Budjiti Traditional Owners
- reached agreement with Butchulla Aboriginal Corporation RNTBC to develop the Great Sandy National Park – K'gari (Fraser Island) section Management Plan
- completed the draft Great Sandy National Park – Cooloola section Management Plan in cooperation with the Kabi Kabi people in preparation for internal review and external consultation
- commenced the draft Moreton Island National Park Management Plan and related strategies with the Quandamooka Yoolooburrabee Aboriginal Corporation
- continued negotiations with the Waanyi Native Title Aboriginal Corporation RNTBC to resolve the successful 2016 claim over Boodjamulla (Lawn Hill) National Park under the *Aboriginal Land Act 1991* and develop a cooperative management agreement
- continued negotiations with the Butchulla Aboriginal Corporation RNTBC to develop a cooperative management agreement and an Indigenous Land Use Agreement over the protected area estate on K'gari (Fraser Island)
- undertook a fauna survey at Oyala Thumotang National Park with the First Nations people
- continued development of Central Station as a cultural tourism centre with camping and bush tucker tours on K'gari (Fraser Island)
- continued the Central Station Redevelopment project and provided final copy for Butchulla Aboriginal Corporation RNTBC signing of the Commercial Activity Agreement for designated facility use, supporting Butchulla Aboriginal Corporation RNTBC Cultural Tours
- supported Great Barrier Reef Traditional Owners to develop a Reef 2050 Traditional Owner Implementation Plan and supporting communications products
- delivered 11 environmental projects under the Reef Assist program in the Wet Tropics, Burdekin and Mackay-Whitsunday regions, with nearly half of the 230 positions created being filled by First Nations people working on Country
- provided continued funding to the Gidarjil Development Corporation for ongoing delivery of the Traditional Owner-led inshore coral and water quality monitoring project in the southern Great Barrier Reef
- provided funding for phase 1 of the Koinmerburra Ridge to Reef Restoration Project, co-designing a strategic plan with Koinjmal Traditional Owners to undertake restoration activities and training on Country
- provided training to 13 Traditional Owners in water quality monitoring through the Wet Tropics Major Integrated Project. This has helped the Mamu and Gulngay Kinjufile Aboriginal Corporations to recently secure

additional funds for water quality monitoring and improvement projects.

- developed an action plan to meet the commitment in the *South East Queensland*

*Koala Conservation Strategy 2020–2025* to recognise the importance of koalas to First Nations peoples.

## Summary of performance in 2021–22

The following results document performance highlights against outcome indicators as outlined in the *DES Strategic Plan 2021–25*.

Outcome indicators	Performance highlight
<p>Increased percentage of Queensland's land area that is protected</p> <p><i>SDS service standard included below</i></p>	<p>As at 30 June 2022 the total protected area estate is 14,206,518 hectares, or 8.21% of Queensland's terrestrial landmass. This combined landmass is larger than the state of Tasmania.</p>
<p>Inclusion of culturally significant places in the Queensland Heritage Register</p> <p><i>SDS service standard included below</i></p>	<p>100% of departmental heritage recommendations for the inclusion in, or removal from, the Heritage Register were accepted by the Queensland Heritage Council.</p>
<p>Maintained or improved key natural, cultural and heritage values</p>	<p>89% of natural and cultural key values in identified priority parks and forests were maintained or improved during 2021–22.</p> <p>This measure gauges if the QPWS&amp;P on-ground management actions are maintaining or improving the condition of key natural and cultural values in identified priority parks and forests. The condition of key values is assessed annually through QPWS&amp;P health checks.</p>

## Service Standards

The following service standards in DES's 2021–2022 *Service Delivery Statement* were used by the department and the government to assess performance as documented as at 30 June 2022.

SDS Service standards	Notes	2021–22 Target/Est.	2021–22 Actual	Target met/not met
<b>Service area: Parks, Wildlife and Conservation Services</b>				
<b>National Parks</b>				
Percentage of the prescribed Protection Zone fuel management treatment achieved on Queensland Parks and Wildlife Service (QPWS) managed areas to protect life and property	1	90%	75%	Target not met
Area of the QPWS managed estate with fuel loads reduced by planned burning, to reduce fire risk to life and property and protect biodiversity	2	637,463 ha	358,563 ha	Target not met
Number of overnight camper stays hosted on national parks and Forests		1.4 million	1,495,062	Target met
Number of hectares of State land and national parks transferred to Traditional Owners in Cape York Peninsula	3	462,825 ha	160,229 ha	Target not met
<b>Wildlife</b>				
Median time taken to resolve declared problem crocodiles		≤7 business days	1 business day	Target met
<b>Protecting environments and ecosystems</b>				
Percentage of Queensland's land area that is protected	4	8.27%	8.21%	Target not met
Cost per session for the Queensland wetland information system ( <i>WetlandInfo</i> )		<\$1.20	\$0.59	Target met
<b>Service area: Heritage Protection Services</b>				
Percentage of departmental heritage recommendations, for inclusion in or removal from the Heritage Register, accepted by the Queensland Heritage Council		90%	100%	Target met
Average cost per Heritage Register entry reviewed and updated		\$235	\$230	Target met

Notes:

- Of the 1,388.3 hectares target area, 1,041.1 hectares was burned in 2021–22. The variance between the 2021–22 target/estimate and the 2021–22 actual is due to widespread and unusually prolonged wet conditions driven by the La Nina weather pattern. The wet conditions have hampered access and effectiveness of burn activities.
- There were 435 planned burns undertaken resulting in 358,563 hectares of estate treated. The variance between the 2021–22 target/estimate and the 2021–22 actual is due to widespread and unusually prolonged wet conditions driven by the La Nina weather pattern.
- The State land transferred to Traditional Owners during the period included the Eastern Kuku Yalanji dealing and Munburra. The variance between the 2021–22 target/estimate and the 2021–22 actual is due to the complexity of the Thayanaku land dealing, and the requirement to resolve complex tenure issues and ensure the free, prior and informed consent of Traditional Owners. Approximately 382,000 hectares are scheduled for transfer in 2022–23 and is reflected in the 2022–23 SDS target/estimate.
- There was an increase of 3,955 hectares during the last quarter, bringing the total protected area estate to approximately 8.21% (14,206,518 hectares). The variance between the 2021–22 target/estimate and the 2021–22 actual is largely due to the reduction of 106,066 hectares as a result of the reversion of the Jardine River and Heathlands Resources Reserves to reserves under the *Land Act 1994*. This is a necessary step associated with the conversion of the majority of these areas to National Park (Cape York Peninsula Aboriginal Land) which is scheduled to occur in 2022–23 following the authorisation process with Traditional Owners.

## Enable job creation, and the growth of new industries and environmental markets

The Queensland Government is dedicated to strong action on climate change and remains committed to its targets: reducing emissions by 30 per cent below 2005 levels by 2030 and achieving zero net emissions by 2050. Delivering on these targets will make an important contribution to global action on climate change and help attract new investment, industry development and sustainable job creation across the Queensland economy.

In 2021–22, the government delivered a Queensland Climate Action Plan 2020–2030 (QCAP). The QCAP builds on the achievements of the past three years under the Queensland Climate Transition Strategy and Queensland Climate Adaptation Strategy. Both strategies have helped position Queensland's communities, industries and economy to succeed in the global shift to zero net emissions and as the impacts of climate change are felt more deeply. DES leads collaborative work across the Queensland Government to develop and implement the QCAP.

### Key achievements in 2021–22

#### **Enable the continued growth of a strong and compliant resource recovery and recycling manufacturing industry. This year we:**

- reviewed the Queensland waste levy arrangements and secured reforms to levy rates, exemptions and annual payments to councils to ensure a path to achieving the state's waste targets
- co-funded organics processing infrastructure with industry and the Australian Government - the Food Waste for Healthy Soils Program will deliver new and enhanced processing facilities to divert organic material from landfill and deliver a high quality, saleable product for soil improvement
- delivered the Regional and Remote round of the Queensland Recycling Modernisation Fund for sorting, processing and re-manufacturing equipment across the state
- continued to undertake waste levy compliance activities, including volumetric surveys, on-site inspections, and successful enforcement actions with the issuing of 69 direction notices, 39 penalty infringement notices, two environmental protection orders, and 37 applications for new environmental authorities were received as a result of these activities
- continued administration of the Local Government Illegal Dumping Partnership Program involving over 27 councils for Round 1 of the program, with 891 penalty infringement notices issued
- finalised a report on tyre dumping across South West Queensland to assist future management of the issue
- released the *Queensland Organics Strategy and Action Plan 2022–2032* to improve the management of organic materials along the supply chain and identify and prioritise actions

to improve the recovery of organic materials, supporting the establishment of new processing industries and development of recovered materials market opportunities.

#### **Support ecotourism opportunities that are innovative and sustainable. This year we:**

- implemented the Ecotourism Program Assurance Framework to ensure ecotourism facilities on protected areas monitor and report on their contributions to park management, maintenance and planning
- continued to engage with Kabi Kabi First Nations peoples on the Cooloola Great Walk Ecotourism Project to deliver a product that promotes awareness of Traditional Owner cultural values
- partnered with the Department of Tourism, Innovation and Sport (DTIS) to achieve project milestones of the Wangetti Trail including referral under the *Environment Protection and Biodiversity Conservation Act 1999* and worked with a contractor to complete the detailed design for the southern section of the trail
- collaborated with DTIS on the development of the Act Eco initiative to provide funding to several new eco and nature-based tourism opportunities adjacent to or near protected areas across the state
- partnered with the Wet Tropics Management Authority and Tourism and Events Queensland to develop a new Wet Tropics Tour Guide Program to foster world-class presentation of the Wet Tropics World Heritage Area and its values, promote and support excellence in interpretation, storytelling and sustainable tourism



- installed 30 new small vessel public moorings and 13 no-anchor zone markers in the Whitsundays to protect and improve access to the Great Barrier Reef
- completed the construction phase of the new multi-day Ngaro Walking Track from Tongue Point to Whitehaven Beach on Whitsunday Island
- supported the development of the Sustainable Visitor Capacity and Management study for Cooloola, K'gari (Fraser Island) and Bribie Island Recreation Management Areas to inform safe and sustainable management of visitation and completed the review of Cooloola and Bribie Island recreation areas.

**Enable the biodiscovery industry through best-practice legislation and streamlined permitting. This year we:**

- introduced a traditional knowledge obligation through the development of the Traditional Knowledge Codes of Practice, Traditional Knowledge Guidelines and other supporting materials, ensuring protection of First Nations Peoples' knowledge of the uses relating to native plants and animals.

**Support small businesses to be energy and resource efficient to reduce costs and improve sustainability. This year we:**

- continued our partnership with the Chamber of Commerce and Industry Queensland to deliver the successful ecoBiz program, supporting more than 1,500 Queensland businesses to transition towards sustainable business practices.

**Enable strong resilient communities to achieve zero net emissions by 2050. This year we:**

- contributed to the Queensland Resource Industry Development Plan including proposals for resource companies to develop decarbonisation plans
- supported community-based action on climate change through grants that kick started smaller-scale, local projects aimed at reducing emissions and building resilience
- launched the Low Carbon Accelerator Program to provide eligible businesses with funding support and industry partnership opportunities to develop and implement new low carbon methods and technologies for Queensland industries
- partnered with the Local Government Association of Queensland to work with First Nations councils to co-design regional waste management plans that identify and prioritise

actions to deliver environmental and economic improvements for communities to support place-based circular economy and market development opportunities.

**Support jobs and regional businesses through capital works programs. This year we:**

- supported more than 700 jobs and delivered 106 capital works projects to enhance visitor access and better manage our parks and forests.

**Support Queensland communities and businesses to manage climate risk and seize the opportunities of a low carbon economy. This year we:**

- launched the second investment round of the Land Restoration Fund that is expanding carbon farming in Queensland by supporting projects that deliver environmental, social, economic and First Nations outcomes including the sequestration of millions of tonnes of carbon in Queensland landscapes, provide habitat for threatened species, improve the health of our land and waterways, and create jobs in the carbon economy for regional workers and businesses.

**Improve the translation of science and research to create jobs. This year we:**

- commissioned CSIRO/Data61 to prepare *A New Chapter* – a report identifying opportunities to seed nine emerging industries for Queensland over the coming decade which will be used to inform strategic decisions around supporting science capability, investment in science infrastructure and science-driven industry development and attraction
- worked with all Queensland universities to explore a joint approach to increasing philanthropic investment in local research
- delivered the Future Skills in Queensland workshop to Queensland's universities and TAFE Queensland to plan how we can bring together industry and business leaders, major employers, and training providers to identify strategies and partnerships to assist industry to build the workforce needed to ensure Queensland's continued prosperity
- chaired the Boggo Road Collaboration Leadership Group, which drives the coordinated development of the Precinct to maximise its potential through better coordination of initiatives, planning, and proposed infrastructures.

## Summary of performance in 2021–22

The following results document performance highlights against outcome indicators as outlined in the *DES Strategic Plan 2021–25*.

Outcome indicators	Performance highlight
<p>Contribution towards the government's target of:</p> <ul style="list-style-type: none"> <li>30% reduction in net greenhouse gas emissions by 2030</li> <li>zero net emissions by 2050</li> </ul>	<p>The Queensland Government launched the <i>Queensland Climate Action Plan 2020–2030</i> (QCAP) on 30 July 2021. The QCAP sets out the priority sectors for action over the next decade to achieve zero net emissions by 2050, power Queensland with 50% renewable energy by 2030 and reduce greenhouse gas emissions by at least 30% below 2005 levels by 2030.</p> <p>Queensland's emissions for 2020, the latest available data from the National Greenhouse Gas Inventory, were 19% below 2005 levels, almost two-thirds to meeting the 2030 emissions reduction target. DES is supporting whole of government governance processes to drive the QCAP's implementation, as well as delivering specific programs to support climate action across the state.</p>
<p>Contribution towards the government's waste target for 2050:</p> <ul style="list-style-type: none"> <li>25% reduction in household waste</li> <li>90% of waste is recovered and does not go to landfill</li> <li>75% recycling rate across all waste types</li> </ul>	<p>Queensland's overall recovery rate was 56.2%, a 2.1 percentage point increase from 2019–20. In 2020–21, waste diversion for the headline waste streams were:</p> <ul style="list-style-type: none"> <li>28.4% for municipal solid waste (the current target is 55% by 2025)</li> <li>54.8% for commercial and industrial waste (the current target is 65% by 2025)</li> <li>79.7% for construction and demolition waste (the current target is 75% by 2025).</li> </ul> <p>The <i>2020–21 Recycling and Waste in Queensland report</i> was published in June 2022.</p>
<p>Increased economic and job opportunities arising from Queensland's investment in environmental outcomes</p>	<p>DES is currently leading the development of a Natural Capital Program, including investment facilitation to support private sector investment for the protection, restoration and enhancement of biodiversity in Queensland. This investment will also support increased economic and job opportunities. Work is nearing completion on the development of a web entry portal (including expression of interest form) for the Natural Capital Program. A market sounding process has begun with potential investors and related groups to better understand investor readiness, barriers and opportunities in natural capital investment, and to facilitate further relationships which may lead to on-ground projects.</p>

## Service Standards

The following service standards in DES's *2021–2022 Service Delivery Statement* were used by the department and the government to assess performance as documented as at 30 June 2022.

SDS Service standards	Notes	2021–22 Target/Est.	2021–22 Actual	Target met/not met
<b>Service area: Environmental Policy, Programs and Regulation Services</b>				
Not available	1			

Note:

- Service standards for this objective are being developed for inclusion in a future *Service Delivery Statement*.

## Protect World Heritage areas including the Great Barrier Reef

We work in genuine partnerships with First Nations peoples, the Australian Government and many other land managers, partners and stakeholders to protect and manage Queensland's five World Heritage areas — K'gari (Fraser Island), the Wet Tropics of Queensland, Gondwana Rainforests of Australia (Queensland section), the Australian Fossil Mammal Sites (Riversleigh section) and the Great Barrier Reef.

Queensland's World Heritage Areas are internationally treasured natural wonders and Australian icons with significant cultural, tourism and recreational values. The Great Barrier Reef alone has special significance to over 70 First Nations peoples, who have lived across the Reef and its catchments for tens of thousands of years and who maintain a continuing connection to their land and sea Country.

The Reef is facing significant threats, including climate change, and sediment and nutrient run-off. The first mass coral bleaching event to occur during a La Nina weather pattern that usually results in lower temperatures and higher rainfall for Australia's east coast, occurred this summer, impacting the central and northern Reefs. The cumulative impact of these threats is taking a measurable toll on the condition of the Reef and the health of its ecosystems. Queensland is actively tackling these challenges. This includes action to reduce emissions that contribute to global climate change, reducing sediment and nutrient run-off under the *Reef 2050 Water Quality Improvement Plan*, and implementing the updated *Reef 2050 Long-Term Sustainability Plan 2021–2025* and Field Management Program with the Australian Government.

### Key achievements in 2021–22

#### Protect and maintain the value of Queensland's World Heritage areas. This year we:

- worked with the Australian Government to deliver a *State Party Report on the state of conservation of the Great Barrier Reef World Heritage Area* and hosted a Reactive Monitoring Mission by the UNESCO World Heritage Centre and International Union for Conservation of Nature
- enhanced our partnership with the Butchulla First Nations people and CSIRO to commence development of a Climate Change Adaptation Plan for the K'gari (Fraser Island) World Heritage Area
- sponsored the K'gari Research Symposium: K'gari – Towards 2050, bringing together Butchulla First Nations people, researchers, and community members to develop strategies to guide future climate change actions
- facilitated the formal repatriation of the island's Indigenous name to the K'gari (Fraser Island) World Heritage Area and achieved equal representation of Butchulla people on the K'gari (Fraser Island) World Heritage Advisory Committee
- supported the Waanyi First Nations people to strengthen World Heritage management provisions for Riversleigh in the *Boodjamulla (Lawn Hill) National Park Management Plan*
- increased representation of Waanyi people on the Riversleigh World Heritage Advisory Committee
- in partnership with Traditional Custodians, researchers, and land managers increased monitoring of at-risk high-altitude flora and

fauna species in the Wet Tropics of Queensland World Heritage Area

- commenced recruitment for a culturally appropriate Queensland-specific Advisory Committee for Gondwana Rainforests of Australia World Heritage Area, incorporating equal representation across Gondwana's First Nations groups.

#### Lead in the protection and restoration of the Great Barrier Reef through the implementation of reef reforms and water quality programs. This year we:

- finalised the updated *Reef 2050 Long-Term Sustainability Plan 2021–25* together with the Australian Government
- commenced minimum practice standards under Reef protection regulations for cattle grazing in the Fitzroy region and requirements for farm nitrogen and phosphorous budgets for sugarcane cultivation in the Wet Tropics, Burdekin and Mackay Whitsunday regions
- continued the independent review of the land management target for agricultural practice adoption to better align them with water quality targets across catchments
- continued implementation of the targeted reef compliance program, including successful enforcement action taken with the issuing of 35 warnings, four statutory notices, and one penalty infringement notice
- implemented the new environmentally relevant activity 13A, which regulates commercial cropping and horticulture in the Great Barrier Reef catchment, with ten new environmental authorities issued

- published the *Compliance and Enforcement Strategy: Reef Protection Regulations*
- continued to deliver the Queensland Reef Water Quality Program, which funded a range of water quality improvement projects in partnership with industry, agricultural producers and communities
- released the joint Queensland and Australian Government *Reef Water Quality Report Card 2020*, which showed continued progress towards Reef 2050 Water Quality Improvement Plan targets, including the inaugural social monitoring reporting
- continued to implement the Urban Water Stewardship Framework with Local Government in the five Reef regional report card partnership regions of the Wet Tropics, Dry Tropics, Mackay-Whitsunday-Isaac, Fitzroy Basin and Gladstone Harbour
- delivered three pilot projects for innovative urban wastewater treatment in the Townsville, Mackay and Fraser Coast local government areas
- commenced an update of the Reef *Scientific Consensus Statement* to ensure a common understanding of the most up-to-date scientific information for Reef water quality policy and management decision-making
- partnered with The University of Queensland in a multi-million-dollar collaboration to improve water quality in the Great Barrier Reef by developing innovative tools that aim to continually improve water quality and provide international and domestic stakeholders with greater confidence in the management of the Great Barrier Reef
- supported grazing, cane, banana and horticulture industries to adopt improved practices for enhanced productivity and water quality outcomes
- completed two Major Integrated Projects in the Wet Tropics and Burdekin Regions, reducing sediment discharge by over 10,000 tonnes per year in the Burdekin, and nutrient discharge by approximately 74,000 kilograms in the Wet Tropics
- commenced the design and delivery of the Reef Credit Fund to help support landholders generate additional income through improved farming practices
- continued to deliver a suite of nutrient management planning projects, bringing the total number of farm plans to almost 700 since 2016, generating 834 tonnes less nitrogen applied on farm across the Burdekin, Mackay Whitsunday and Burnett Mary regions
- supported the delivery of FORAGE budgeting services in the Upper Burdekin and Fitzroy regions enabling local providers and

champion graziers to assist 59 graziers to determine stocking rates that will improve land and soil condition and reduce soil run-off

- partnered with The University of Queensland to establish a new research program to better target reef protection compliance activities
- achieved targets set for the Grazing Resilience and Sustainable Solutions (GRASS) program tailor-made Action Plans for Land Management, with 377 plans in place on properties covering more than two million hectares across the Burdekin, Fitzroy and Burnett Mary regions.

**Facilitate new job opportunities and improve environmental outcomes through the delivery of targeted programs in reef catchments and World Heritage areas. This year we:**

- supported 232 positions and created 112 unique training opportunities through the Reef Assist program, which continued to deliver 11 on-ground environmental projects in the Wet Tropics, Burdekin and Mackay-Whitsunday regions, to improve catchment health and help protect the Great Barrier Reef
- supported employment of 37 regional staff through implementation of the Burdekin and Wet Tropics Major Integrated Projects
- progressed the graduation of 11 early career extension officers placed in extension organisations under the 2021–22 Agricultural Extension Work Placement Program, bringing the overall intake to 32 trainees engaged in the project since its inception in 2017
- supported the employment of a Butchulla Project Officer for the design and development of a culturally informed Climate Change Adaptation Plan for the K'gari (Fraser Island) World Heritage Area
- established a Queensland-based Executive Officer role to provide support to the new Gondwana Rainforests World Heritage Area (Queensland Section) Advisory Committee.

**Deliver a world-class Joint Field Management Program together with the Great Barrier Reef Marine Park Authority. This year we:**

- took delivery of the new 17 metre patrol vessel 'Tamoya II', contributing to the ongoing expansion of the Joint Field Management Program's patrol response capacity across the Great Barrier Reef World Heritage Area
- delivered a new reef rehabilitation project at Bait Reef in the Whitsundays
- delivered a comprehensive summer Reef health assessment program including aerial surveys and new assessment technologies with partner organisations

- conducted dedicated compliance patrols to deter illegal activity with 94 days of aircraft surveillance resulting in 292 offences. Recorded 1,230 possible offences with resulting compliance action including 60 infringement notices, 27 caution notices, 520 advisory letters and 67 court prosecutions
- delivered 70 days of broad-scale Crown of Thorns Starfish (COTS) surveillance activities, surveying approximately 921 kilometres of reef-margin across the Great Barrier Reef.

## Summary of performance in 2021–22

The following results document performance highlights against outcome indicators as outlined in the *DES Strategic Plan 2021–25*.

Outcome indicators	Performance highlight
Contribution towards the government's target of: <ul style="list-style-type: none"> <li>60% reduction in anthropogenic end-of-catchment dissolved inorganic nitrogen loads</li> <li>25% reduction in anthropogenic end-of-catchment sediment loads</li> </ul> <i>SDS service standard included below</i>	The 2021–22 performance for this service standard will be reported through the combined Reef Water Quality Report Card 2021 and 2022. The following 2019–20 results were published in February 2022: <ul style="list-style-type: none"> <li>According to the modelling, we are almost halfway to the dissolved inorganic nitrogen target. The dissolved inorganic nitrogen load leaving catchments showed a cumulative reduction of 27.7% to June 2020, a modelled average annual reduction of 2.2% (approximately 118 tonnes) from July 2019 to June 2020.</li> <li>The dissolved anthropogenic sediment load leaving catchments showed a cumulative reduction of 15.2% to June 2020, a modelled average annual reduction of 0.6% (approximately 37 kilotonnes) from July 2019 to June 2020. According to the modelling, we are more than halfway to the sediment target.</li> </ul> The report is available from <a href="http://www.reefplan.qld.gov.au">www.reefplan.qld.gov.au</a> .

## Service Standards

The following service standards in DES's *2021–2022 Service Delivery Statement* were used by the department and the government to assess performance as documented as at 30 June 2022.

SDS Service standards	Notes	2021–22 Target/Est.	2021–22 Actual	Target met/not met
<b>Service area: Environmental Policy, Programs and Regulation Services</b>				
<b>Great Barrier Reef water quality improvement programs</b>				
Queensland contributes to progress towards 2025 targets of: <ul style="list-style-type: none"> <li>60 per cent reduction in anthropogenic end-of-catchment dissolved inorganic nitrogen loads</li> <li>25 per cent reduction in anthropogenic end-of-catchment sediment loads</li> </ul>	1	≥2% ≥1%	Not available	Not applicable
Percentage of sugarcane producers, within reef catchments: <ul style="list-style-type: none"> <li>participating in the SmartCane Best Management Practice (BMP) program</li> <li>achieving accreditation in the SmartCane BMP program</li> </ul>	2	57% 19%	56% 19%	Target not met Target met
Queensland Reef Water Quality Program funds distribution administration ratio	3	≤\$0.20	\$0.22	Target not met

### Notes:

- The 2021–22 performance for this service standard will be reported through the combined Reef Water Quality Report Card 2021 and 2022.
- Delivery of the BMP participation program was impacted by Queensland Cane Growers Organisation Ltd (CANEGROWERS) losing several regional delivery staff between January–June 2022 and, with the department's agreement, resources were focussed on delivering re-accreditations and new accreditations. This shift in focus led to achieving the 2021–22 target for new accreditations, and the retention of 98% of previously accredited producers through re-accreditation against a retention target of at least 95% over the life of the program.
- The actual for 2021–22 is based on the ratio of administration expenses and funds distributed in the previous financial year. The result of \$0.22, was due to a lower-than-expected uptake of the Farming in Reef Catchments Rebate Scheme.

## Empower Queensland's youth

The Queensland Government wants all young Queenslanders across the state to see limitless possibilities and realise their potential to help shape their future. The government is working to strengthen the leadership skills and capacity of young people to drive change in their communities and beyond. This includes sponsoring the YMCA Queensland Youth Parliament and delivering the Queensland Indigenous Youth Leadership Program.

Young people are passionate, informed and invested in the future of this state. The more government can provide opportunities for young people to share and listen to their experiences, ideas, and solutions, the better they can inform the policies, programs and services that interest and impact them.

The government is supporting Queensland's youth to engage in science activities and science, technology, engineering, and mathematics (STEM) subjects inspiring them towards jobs of the future.

## Key achievements in 2021–22

### **Strengthen leadership skills and capabilities to help provide young Queenslanders with a stronger future. This year we:**

- delivered the 18<sup>th</sup> annual Queensland Indigenous Youth Leadership Program. Supporting young First Nations Queenslanders to come together to develop leadership skills, build confidence and agency to build capacity and drive change in their local communities and beyond
- supported Queensland Parliamentary Services to deliver the Eric Deeral Indigenous Youth Parliament program, to provide an opportunity for young First Nations Queenslanders to experience Parliamentary debate and learn more about Parliamentary processes
- supported the delivery of the 27<sup>th</sup> annual Queensland Youth Parliament program, continuing our partnership with YMCA Brisbane and Queensland Parliamentary Services to provide this opportunity to 93 young people aged 15–25. This non-partisan program provides a unique leadership and educational opportunity for the participants to experience Parliament firsthand, and participate in the development, debate and passing of Youth Bills on topics of interest to young Queenslanders
- launched the *Engaging Queenslanders in science strategy 2021–2024* designed to foster engagement, participation, and innovation in STEM.

### **Engage, celebrate and listen to the voices of young Queenslanders to shape and improve Queensland Government policy and services. This year we:**

- hosted Queensland Youth Week in April 2022, encouraging all Queenslanders to celebrate our state's young people and their

achievements, with more than 76 events registered across the state during the week

- continued delivery of Speak Out events, which enables us to listen directly to young Queenslanders on topics that are important to them, including ideas and challenges related to their local community, mental health, the environment, housing affordability and consent. Events were held at Mount Isa, the Sunshine Coast, Ipswich, Logan, the Gold Coast and a special daytime event in the Safer Schoolies precinct
- delivered the Youth Week Gold Coast Speak Out event, to which six Queensland Government departments attended. The event highlighted some exceptional young Queenslanders in a public facing communications campaign, and heard firsthand from young people on specific policy or service development questions
- shared feedback from young people at Speak Out events directly with the relevant Queensland departments, to ensure the voices and views of young Queenslanders are considered in the shaping and development of Government policies, programs and services
- encouraged departments to extend their commitments to youth engagement and pursue opportunities to engage young Queenslanders by embedding the Queensland Youth Engagement Charter across government.

### **Enhance the safe and responsible behaviour of school leavers and support Queensland communities over the schoolies holiday period. This year we:**

- successfully delivered the 2021 Safer Schoolies response in the face of COVID-19 and in partnership with nine Queensland

- Government agencies, seven community partners and the City of Gold Coast
- created a safe and welcoming space in the Surfers Paradise Schoolies Hub for over 16,000 Year 12 graduates to celebrate safely and happily
  - effectively worked with non-government organisations, along with the Queensland Ambulance Service, Gold Coast Health and Queensland Police Service, to coordinate and deliver a suite of integrated health and support services designed to meet the specific needs of the Schoolies period
  - delivered the Safer Schoolies education program to 4,819 students across 36 schools
  - enhanced the safe and responsible behaviour of school leavers and supported local communities while minimising disruption during the Schoolies period
  - delivered a Safer Schoolies response where there were no major incidents, arrests were down 33 per cent, hospital presentations were down 44 per cent, and overall sentiment was positive (described as the 'best behaved' year of Schoolies)
  - rolled out a new wristband registration system which included a data chip capturing individual IDs, to 16,482 legitimate Year 12 school leavers attending Schoolies week celebrations on the sands of Surfers Paradise
  - recruited 153 volunteers who provided support to the Gold Coast Schoolies wellbeing space and the walk home and drive home services
  - included accommodation outreach services in the Gold Coast Schoolies response.

**Encourage participation and enrolment in Science, Technology, Engineering and Mathematics (STEM) subjects. This year we:**

- highlighted opportunities for young people to engage in science events, projects and initiatives run across the Queensland Government on the Queensland Youth social media channels

- delivered the Youth Research Grants Program, which provided Queensland Universities the opportunity to secure seed funding for research projects based on research priorities identified by young people at Youth Forums across the state. Young people are participating in the selected research projects and may showcase their work in Youth Week 2023
- provided funding to 40 Engaging Science Grants recipients to deliver events, activities and projects including citizen science projects to encourage students to select STEM subjects and careers, and engage the wider community, including parents and grandparents, in science-based activities
- supported an online Indigenous Science Experience for more than 360 Years 5, 6 and 7 students at four Logan primary schools, during National Science Week 2021, celebrating the rich culture and STEM knowledge held by First Nations people including the science behind the crafting and use of spears, hunting sticks and boomerangs
- coordinated Flying Scientist visits to schools and communities in Mount Isa, Cloncurry, Daringa, Rockhampton, Gladstone, Biloela, Springsure and Emerald to talk about their research and careers, inspiring the next generation of scientists and increasing engagement with scientists for increased scientific literacy
- produced an online Citizen Science Teacher Toolkit combining resources and links to teacher guides, lesson plans and other material developed by citizen science groups to assist teachers to incorporate citizen science in the classroom
- profiled award-winning scientists and STEM professionals from the Queensland Women in STEM Prize and Young Tall Poppy Science Awards on the Office of the Queensland Chief Scientist website and social media channel to highlight the wide variety of career options available to young people.

## Summary of performance in 2021–22

The following results document performance highlights against outcome indicators as outlined in the *DES Strategic Plan 2021–25*.

Outcome indicators	Performance highlight
Increased inclusion of youth voices in shaping government policies, programs and services	<p>During 2021–22 DES directly engaged with 350 young people providing them the opportunity to have their voices heard, and sharing feedback from young people with relevant government agencies through programs such as:</p> <ul style="list-style-type: none"> <li>the delivery of the Speak Out series across the state;</li> <li>Young Aboriginal and Torres Strait Islander people's attendance at the Queensland Indigenous Youth Leadership Program;</li> <li>University O-weeks;</li> <li>community events including the Green Heart Fair and the Young Entrepreneur Summit in Logan.</li> </ul>
Greater promotion of STEM education	<p>The number of Year 12 equivalent STEM subject enrolments for 2021 were 100,035, up from 96,302 in 2020. Trends of subject selection and a broader range of STEM subject availability is developing a new baseline (for future year comparisons). The STEM subject enrolment total was collated from both the 'General subjects' list and the 'Applied subjects' list.</p> <p>Source:  <a href="https://www.qcaa.qld.edu.au/downloads/publications/qcaa_stats_yr12_cert_summary_2021.pdf">https://www.qcaa.qld.edu.au/downloads/publications/qcaa_stats_yr12_cert_summary_2021.pdf</a></p>
Contribution towards improved social, economic and civic participation of young people	<p>In 2021–22 the DES supported and delivered youth leadership programs, including YMCA Youth Parliament and Queensland Indigenous Youth Leadership Program, improved civic participation of over 145 young people across the programs; worked with the Department of Communities, Housing and Digital Economy in the development of a youth homelessness policy and framework to support improved outcomes for young people at risk or experiencing homelessness; and supported targeted and direct engagement with young people to inform the youth homelessness policy.</p>

## Service Standards

The following service standards in DES's *2021–2022 Service Delivery Statement* were used by the department and the government to assess performance as documented as at 30 June 2022.

SDS Service standards	Notes	2021–22 Target/Est.	2021–22 Actual	Target met/not met
<b>Service area: Youth Engagement</b>				
Percentage of participants who identify as having improved leadership capabilities as a result of attending a youth leadership program	1	..	88%	Not applicable

Note:

- This measure was baselined during 2021–22.



## Strengthen and harness Queensland's scientific excellence

Our department's science programs monitor, inform and report on the implementation of policies and programs in areas such as water resources, air and water quality, landscapes and soils, biodiversity and aquatic ecosystems, climate adaptation, and coastal and wetland environments. Scientific knowledge is the foundation to productive growth and environmental sustainability, along with the overall health and wellbeing of Queenslanders.

Queensland boasts some of the best scientific research organisations in the world, across universities, medical research institutes and government agencies. Queensland's research sector continues to play a key role in the response to the COVID-19 pandemic and will continue to support the state's economic recovery going forward.

Our department also invests to modernise scientific information systems and has active partnerships with universities and other research organisations to ensure the best available information is available for decision making. The Office of the Queensland Chief Scientist supports Queensland's science sector through the promotion of collaborative opportunities and engagement of the Queensland community.

### Key achievements in 2021–22

#### **Provide leading-edge science to support government decision-making. This year we:**

- developed and implemented an enhanced air quality monitoring data management system to help inform and protect Queenslanders during smoke and fire events
- established four new air quality monitoring sites throughout Queensland (Ayr, Deagon, Toowoomba and Maryborough)
- contributed behavioural and social science expertise into the Drought and Climate Adaptation Program aiding the design of science-based drought decision support tools to support and understand decision-making relating to long-term behavioural (practice) change within the Queensland grazing industry
- continued to work collaboratively with other state and national agencies including the Bureau of Meteorology and CSIRO, through the Roadmap for Australian Climate Projections, and with the NESP2 Climate Systems Hub
- further developed FORAGE property scale reports on seasonal conditions and pasture growth and similar tools on the Long Paddock website, to provide climate and pasture information, including the publishing of several scientific papers in the *Rangeland Journal*
- provided annual updates to maps and information under state legislation for regional ecosystems, high value regrowth, koala habitat, essential habitat, and protected plants
- released the *2018–2019 Statewide Landcover and Trees Study (SLATS) Report* that enabled the use of new methods and new remote sensing imagery to be utilised in the analysis of tree clearing in Queensland
- convened and supported the Native Vegetation Scientific Expert Panel, that identifies incentives to help avoid clearing in Queensland
- monitored water quality in creeks adjacent to planned aquaculture operations to provide a baseline of existing water quality which then assisted in regulating releases from these operations
- released the 2020 Great Barrier Reef catchments wetland condition report card and supporting scientific publications as part of the Reef Water Quality report card. The overall number of monitored wetland monitoring sites increased to 300 enabling regional scale wetland condition reporting in future years. Seventy-six land managers from across the catchment participated in the program during this reporting period
- provided hydrological support for the Bradfield Panel Assessments
- participated in the bid for an Australian Research Council Centre of Excellence for Indigenous and Environmental Histories and Futures to further its support of ethnobotany and Indigenous engagement and to combine Indigenous knowledge and practices with Western science to transform environmental monitoring and management
- invested in a scientific study to investigate the cause/s of sea flora odour and options for mitigation
- continued to develop the Government Science Platform delivering improvements to the capture and management of biodiversity data, increasing high-performance computing and

storage capacity, and developing new modern data management, collaboration, automation and analytical capabilities which will support and transform the delivery of our science into the future.

**Strengthen disaster recovery and resilience and climate change response by harnessing Queensland's Scientific excellence. This year we:**

- successfully completed upgrades of the tide and wave sites coastal monitoring networks by the Queensland Government Hydraulics Laboratory including the deployment of Triaxys buoys for the enhancement of navigation safety
- hosted the Queensland Decarbonisation Forum 2022, bringing together experts from academia, governments, industries and civil society to identify pathways for Queensland to achieve renewable energy and emission reduction targets and establish Queensland as the national leader in low-carbon industries, technologies, policies, programs, and practices, and in support of accelerated action to transition Queensland to a prosperous zero net emissions
- provided hydrological assessments to support the new water infrastructure proposals for the State of Queensland
- completed a transition project that will inform the next phase of the joint Queensland and New South Wales Government Tweed Sand Bypassing initiative
- continued to deliver the Queensland Government Science Platform—Tranche 3, to enable ongoing support for disaster management including planning for bushfires, drought and cyclones; enabling faster water

quality modelling to better inform Reef and sediment management; and efficiencies in processes for environmental assessments and major infrastructure project approvals.

**Diversify Queensland's economy by growing emerging knowledge intensive industries. This year we:**

- continued support of National Collaborative Research Infrastructure Strategy facilities in Queensland under the Research and Infrastructure Co-investment Fund, for critical co-investment in facilities with partnerships and joint ventures designed to put our science facilities and researchers in a nation-leading position
- supported the Queensland Defence Science Alliance to enhance the opportunities for Queensland science capability and to work together to access defence related funding and partner with industry
- worked with Trade and Investment Queensland to establish the Joint Declaration of Intent for Cooperation in Bioeconomy with the German Federal Ministry of Education and Research
- supported Queensland researchers to collaborate with the Chinese Academy of Sciences Institute researchers on projects of mutual benefit to Queensland and China in priority research areas including agricultural biotechnology and food research (including food safety), human health and medical research and environmental sciences
- coordinated whole of government input to the national Gene Technology Regulator, keeping Queenslanders safe whilst enabling the world-leading genetic research in Queensland.

## Summary of performance in 2021–22

The following results document performance highlights against outcome indicators as outlined in the *DES Strategic Plan 2021–25*.

Outcome indicators	Performance highlight
Increased leveraging of national and international science collaborations and partnerships	Three agreements provided Queensland researchers with opportunities to collaborate with national and international partners to accelerate their research in Queensland's priority research areas and attracted critical co-investment in National Collaborative Research Infrastructure capabilities, with existing or planned Queensland operations.
Maintain high client satisfaction with science services <i>SDS service statement included below</i>	92% of customers from government agencies were satisfied with the natural resources and environmental science services and information provided during 2021–22.
Greater access to and use of science data	The number of science datasets increased by a further 22 datasets which were made available as open data across the year. All datasets are available from official Queensland Government data portals for reuse using open and standard licencing approaches. The datasets include those supporting high priority activities such as the Statewide Landcover and Trees Study (SLATS) and base datasets for biodiversity management and reporting.

## Service Standards

The following service standards in DES's *2021–2022 Service Delivery Statement* were used by the department and the government to assess performance as documented as at 30 June 2022.

SDS Service standards	Notes	2021–22 Target/Est.	2021–22 Actual	Target met / not met
<b>Service area: Science</b>				
Percentage of customers from government agencies satisfied with the natural resource and environmental science services and information provided (overall satisfaction)		≥90%	92%	Target met
Percentage of laboratory tests completed and made available within agreed timeframes and quality specifications to support Reef 2050 Water Quality Improvement Plan and other government priorities	1	≥89%	88%	Target not met

Note:

1. Despite the negative staffing impacts of COVID-19 restrictions and the unprecedented number of samples received due to wet weather events, the 2021–22 actual is an improvement on the estimated actual of 85% and reflects the significant work undertaken during the latter part of the financial year to recover and improve the result within 1% of the target/estimate.

# Deliver a world class environmental, heritage and biodiscovery regulatory system

Our department continues to regulate environmentally relevant activities, places on the Queensland Heritage Register and the standard to which they are maintained, and waste management and resource recovery in Queensland.

We deliver consistent and transparent regulations that target industry-specific strategies and facilitate sustainable development in Queensland. We maintain Queensland's high environmental standards by actively monitoring and managing environmental risks, with robust assessment, compliance, investigation, and enforcement programs. We also provide timely and comprehensive environmental information to state and local stakeholders and ensure the rehabilitation of environmental impacts.

## Key achievements in 2021–22

### **Provide strong protection for the environment and human health. This year we:**

- finalised the scientific Moreton Bay Sand Study to inform allocation of sand resources and permits
- continued to gather significant water quality datasets relating to Queensland northern streams and estuaries in collaboration with industry bodies and stakeholders to support the Regional Reef Report Cards
- provided technical support for the development of water quality objectives for South East Queensland waterways
- undertook assessment and compliance activities, as a Technical Advice Agency, in relation to activities impacting koala habitat areas outside koala priority areas against the new state code for *Development in South East Queensland Koala Habitat Areas*.
- implemented wongari (dingo) compliance actions in line with the *Fraser Island Dingo Conservation and Risk Management Strategy*
- conducted proactive seasonal compliance and educational activities under the Share the Water Program to manage safe separation distances between boats and marine mammals
- effectively regulated the take, use, and keep of wildlife through a targeted program of proactive and reactive compliance and education activities
- continued regulatory activities to monitor compliance under the Tin Can Bay dolphin feeding program to reduce the incidence of unregulated wild dolphin-human interactions and increase public awareness of the restrictions related to dolphin interactions
- issued 2,236 protected area authorities including Native Title assessments and input for a variety of tourism, research, organised events, apiary and marine park activities

including joint marine park permits with the Great Barrier Reef Marine Park Authority

- issued 8,868 protected plant and animal authorities providing business and community with recreational, commercial, scientific, and educational opportunities involving native wildlife while supporting species conservation
- phased out four grazing leases over national parks and provided support to the affected leaseholders
- progressed the Queensland Government's commitment to investigate and consult on the establishment of an independent Environmental Protection Agency to protect our environment, create jobs, and support economic growth.

### **Maintain a 'fit for purpose' and streamlined regulatory framework to support economic recovery. This year we:**

- commenced the Guidance for Resource Industry Project in partnership with the Department of Resources and the Office of the Coordinator-General to improve customer experience and quality of applications
- released the new Online Services digital platform for online customer services and transactions to enable faster and easier interactions with the department
- published the new *DES Regulatory Strategy 2022–2027* that sets out the regulatory approach taken by the environmental regulator
- continued to negotiate with the Commonwealth Department of Agriculture, Water and the Environment on an approvals bilateral agreement for a single touch approach framework, underpinned by National Environmental Standards
- co-designed a five-step program with Queensland's 17 Indigenous Councils to reframe the regulatory relationship with the

department and established the Aboriginal and Torres Strait Islander Council Engagement Program

- published the DES *Stakeholder Charter* to continue to build constructive, respectful, and productive relationships with external stakeholders, including peak industry bodies
- continued enhancements to the Public Register Portal to provide increased public access to a wider range of data and documents related to environmental authorities and enforcement activities
- commenced an independent review of the *Environmental Protection Act 1994* to ensure it has adequate powers and appropriate penalties to protect the environment and community from environmental harm and nuisance issues
- supported the continued stewardship of legislation administered by the department including stakeholder consultation on exposure drafts of legislative amendments to the *Environmental Protection Act 1994*
- worked with the Commonwealth and other jurisdictions on the development of nationally consistent industrial chemicals management, including through the *Industrial Chemicals Management Standards* framework and the ratification of the *Minamata Convention on Mercury*
- established the Lake Eyre Basin Stakeholder Advisory Group to provide advice and assistance to government in the preparation of a consultation Regulatory Impact Statement, providing options for longer term sustainable management of the Queensland Lake Eyre Basin region
- provided advice on the state heritage impacts of major projects such as Brisbane Metro and Inland Rail and supported the Queensland Heritage Council in managing its recommendations regarding the development of places on the Queensland Heritage Register by the Queensland Government
- managed change at places on the Queensland Heritage Register through the provision of technical advice regarding *Planning Act 2016* development applications and ministerial infrastructure designation requests and assessing and deciding exemption certificate applications under the *Queensland Heritage Act 1992*
- entered into a Heritage Agreement under the *Queensland Heritage Act 1992* to facilitate the restoration and adaptation of the state heritage listed property Home at Kangaroo Point, Brisbane (previously known as Lamb House)

- implemented amendments to the *Biodiscovery Act 2004* in relation to a traditional knowledge code of practice to facilitate growth of the biodiscovery industry, while protecting First Nations peoples' knowledge of the uses for native plants and animals in a legally and culturally appropriate way
- contributed economics advice to support a number of environmental regulatory challenges including economic support for the Great Sandy Marine Park Zoning Plan Review; a preliminary cost benefit analysis for the review of the *Environment Protection and Biodiversity Conservation Act 1999*; and updated mining safety cost benefit analysis for Resources Safety & Health Queensland.

#### **Enhance enforcement activities and incident response. This year we:**

- continued installation of the Automatic Number Plate Recognition System (ANPRS) for K'gari (Fraser Island) Recreation Area to ensure compliance with Vehicle Access Permits as recommended by the Inspector-General Emergency Management *K'gari (Fraser Island) Bushfire Review*
- worked collaboratively with the Queensland Police Service as part of Operation Sandstorm to ensure visitor safety and environmental protection throughout the Cooloola Recreation Area, Great Sandy National Park
- trained over 120 rangers and wildlife officers to enhance their skills and capabilities in compliance and enforcement activities
- worked with environmental authority holders and local governments to manage flood impacts, including around 775 inspections and 30 temporary emissions licences issued during 2021–22 in relation to the South East Queensland flood event
- published the *Annual strategic compliance priorities 2020–2021 final report*, and released the priorities for 2021–22
- continued to address community issues in the Swanbank area through the use of compliance actions, community engagement and community air monitoring programs
- continued to manage impacts associated with underground coal gasification including groundwater monitoring
- implemented a new permitting system for protected area authorities providing a single location for the application, assessment and decision making for authorities.

**Continue to implement resource industry rehabilitation reforms. This year we:**

- developed a Residual Risk calculator and guideline (for commencement in 2022-23) to provide world class regulation of surrendered resource sites
- continued development of the public interest evaluation guideline relating to post mining land use
- continued implementation of mining rehabilitation reform relating to the

Progressive Rehabilitation and Closure Plan requirements with 105 transition notices issued, 37 applications received, and nine approvals issued during 2021–22

- undertook a major review of the Estimated Rehabilitation Cost Calculators and guideline.

## Summary of performance in 2021–22

The following results document performance highlights against outcome indicators as outlined in the *DES Strategic Plan 2021–25*.

Outcome indicators	Performance highlight
Increased public access to a wider range of online compliance and enforcement data	As at 30 June 2022, there were more than 10,000 documents published on the Public Register Portal with an average of 14,000 searches a month. During the 2021–22 financial year, Progressive Rehabilitation and Closure records were added to the portal, as well as an improved information request form and version history for environmental authorities.
Reduction in overall risk to the environment <i>SDS service statement included below</i>	81% of identified unlicensed operators were resolved within 60 days by either becoming licensed or having enforcement action taken during 2021–22. 80% of identified, non-compliant operators returned to compliance with their environmental obligations during 2021–22. 95% of matters were finalised with a conviction or a successful application with this result exceeding the target of 85%.

## Service Standards

The following service standards in DES's 2021–2022 *Service Delivery Statement* were used by the department and the government to assess performance as documented as at 30 June 2022.

SDS Service standards	Notes	2021–22 Target/Est.	2021–22 Actual	Target met/not met
<b>Service area: Environmental Policy, Programs and Regulation Services</b>				
<b>Monitoring legislative and regulatory compliance relating to the impact of industrial or commercial activity on the environment</b>				
Percentage of identified unlicensed operators who have become licensed, or enforcement action taken within 60 days		70%	81%	Target met
Average cost per environmental public report resolution as a consequence of effective prioritisation of reports		\$2,000	\$751	Target met
<b>Identifying, monitoring and taking action in relation to unlawful activity</b>				
Proportion of monitored licensed operators returned to compliance with their environmental obligations		70%	80%	Target met
Median cost per formal investigation into serious non-compliance		\$3,000	\$1,436	Target met
<b>Controlling and/or allowing actions that will impact on the State's environment</b>				
Average cost per permit/licence assessed		\$6,000	\$5,989	Target met
<b>Litigation</b>				
Percentage of matters finalised with a conviction or a successful application		85%	95%	Target met
Percentage of briefs of evidence reviewed and decision made on whether charges can be laid, within 12 weeks of receipt		90%	100%	Target met

## Cross-government initiatives

During the reporting period, the department collaborated on the following inter-governmental agreements and whole of government initiatives:

- 'Act Eco' initiative
- 26th Queensland Youth Parliament
- Australian and Queensland government Reef 2050 Water Quality Improvement Plan 2017–2022
- Australian Government's Draft 2021 National Research Infrastructure Roadmap
- Australian Underwater Cultural Heritage Program
- Biodiversity Alignment Project
- Eric Deeral Indigenous Youth Parliament
- Inspector-General, Emergency Management's review into the K'gari (Fraser Island) bushfire
- Mulgumpin (Moreton Island) protected areas Indigenous Joint Management Area (IJMA) arrangements
- Native Vegetation Scientific Expert Panel
- Paddock to Reef Integrated Monitoring, Modelling and Reporting Program
- Police Service Administration and Other Legislation Amendment Bill 2021
- Queensland Climate Action Plan
- Queensland Climate Ready
- Queensland Ecotourism Trails Program
- Queensland Government's commitment to a sustainable and climate positive Brisbane 2032 Olympic and Paralympic Games
- Queensland Reef Water Quality Program
- Queensland-Chinese Academy of Sciences Collaborative Science Fund
- Reef 2050 Long-Term Sustainability Plan 2021–2025
- Science Operational Committee
- State Development Assessment Provisions (SDAP v3.0) of the *Planning Act 2016*
- Youth Homelessness policy.