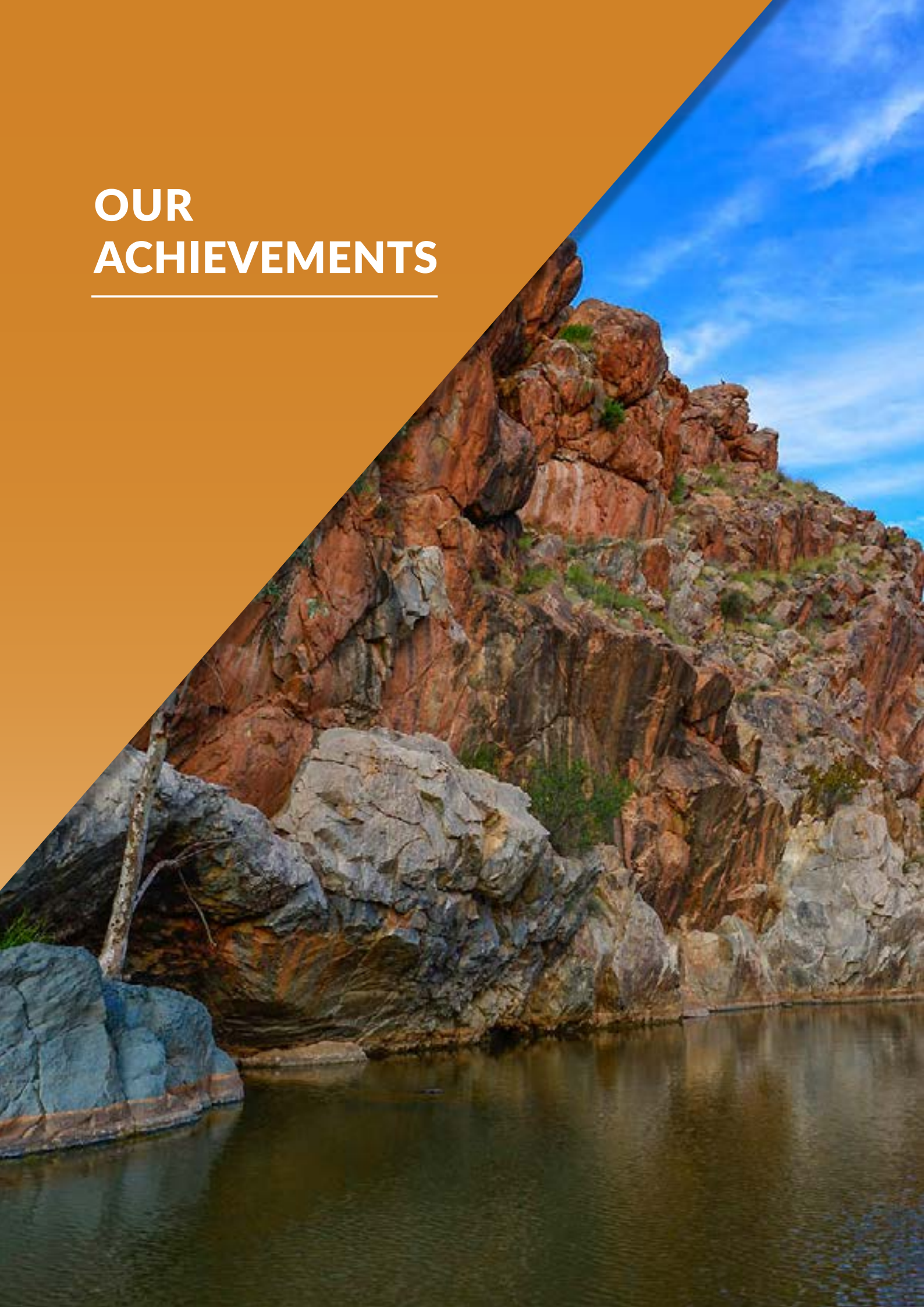


# OUR ACHIEVEMENTS

---



## FINANCIAL SNAPSHOT

\$15M	Water Resources
\$10.1M	Rangelands
\$9.9M	Flora and Fauna
\$8.6M	Bushfires
\$7M	Environment
\$5.1M	Corporate and Governance
\$3.8M	Shared Services Provided
\$0.6M	NT EPA

## Income

In 2017-18, the department received income of \$60.1 million against a final budget of \$62.9 million. Income received is represented by;

- \$49 million in Northern Territory Parliamentary appropriation being the main source of income,
- other goods and services revenue, which includes works performed by the department for third parties;
  - \$1.1 million Water Resources,
  - \$0.4 million Bushfires NT,
  - \$0.2 million Flora and Fauna,
  - \$0.2 million Rangelands, and
  - \$0.1 million Corporate Services.
- \$0.1 million cost recoveries from other Northern Territory Government agencies,
- \$5.1 million grants and appropriation received from the Australian Government and other external parties,
- \$3.8 million notional revenue for corporate services provided by the Department of Corporate Information Services, and
- \$0.1 million in other revenue.

\$17.1M	Water Resources
\$10.6M	Rangelands
\$10.3M	Flora and Fauna
\$9.8M	Bushfires
\$7.2M	Environment
\$4.7M	Corporate and Governance
\$3.8M	Shared Services Provided
\$0.5M	NT EPA

## Expenditure

In 2017-18, the department's expenditure totalled \$64.0 million against a budget of \$65.1 million. Expenditure is represented by;

- \$34.6 million, or 54 percent of total expenditure, on employee expenditure,
- \$15.1 million, or 23 percent of total expenditure, on goods and services expenditure,
- \$8.3 million, or 13 percent of total expenditure, on grants and subsidies payments. Includes \$3.1 million for Aboriginal rangers, \$1.4 million for the West Arnhem Fire Management Agreement and \$0.8 million to support Bushfire Brigades,
- \$5.0 million, or 8 percent of total expenditure, on non-cash expenses. Includes \$1.2 million for depreciation charged on the department's asset portfolio and the matching \$3.8 million for notional expenses charged by the Department of Corporate Information Services, and
- \$1.0 million, or 2 percent of total expenditure, on repairs and maintenance of assets. Includes \$0.6 million on the Mary River Saltwater Intrusion Program.

# OUR ACHIEVEMENTS

## OVERVIEW

This section reports on the department's performance in delivering outputs by division. It covers our achievements in key projects and our performance against our priorities.

Our performance against the output key deliverables published in Budget Paper No. 3 is reported in the performance measure tables. Where actual performance differs from the budget explanation is provided.

## LEGISLATIVE CHANGES IN 2017-18

### Bushfires Management Regulations

The *Bushfires Management Act* provides a regulatory framework for the management of bushfire across all of the Territory outside of the largely urban Emergency Response Areas delivered by NT Fire and Rescue Services. The Act establishes a number of offences relating to the improper or unauthorised use of fire and requirements to establish fire breaks and manage fuel loads.

- The Bushfires Management (General) Regulations allow for some offences to be dealt with by issuing an infringement notice rather than by prosecution.
- The Regulations were amended on 2 March 2018 to ensure that serious offences, being offences for which the maximum penalty includes a term of imprisonment, can only be dealt with by prosecution and a decision of a court.
- This amendment was made following a recommendation of the Public Accounts Committee.

### Environment Protection (Beverage Containers and Plastic Bags) Amendment Regulations 2018

The *Environment Protection (Beverage Containers and Plastic Bags) Amendment Regulations 2018* introduced amendments to refund marking requirements for beverage containers sold in the Northern Territory in accordance with the container deposit scheme.

- The amendments adopted 'common refund marking' agreed with all States and Territories which have, or are introducing, container deposit schemes.

- The changes mean that beverage suppliers do not have to develop different labels for different jurisdictions and facilitate a national approach to container deposit schemes.

### Pastoral Land Act

The Pastoral Land Legislation Amendment Bill was introduced into the Legislative Assembly in October 2017 providing for amendments to the *Pastoral Land Act* and *Pastoral Land Regulations* to:

- Implement a new methodology to set pastoral lease rents based on the capacity of the lease to support livestock (estimated carrying capacity (ECC)),
- rectify an anomaly regarding penalty for late payment of pastoral rent,
- enable the grant of subleases for non-pastoral purposes,
- refine consent to transfer provisions to capture share transfers,
- increase the number of members on the Pastoral Land Board, and
- align payment periods for pastoral lease rent with existing Government policy.

The Bill was referred to the Economic Policy Scrutiny Committee for its examination. The Committee tabled its report in March 2018. As at June 2018 Government was considering the recommendations in the report and the reform is expected to be finalised in late 2018.

## FUTURE LEGISLATIVE PRIORITIES

### **Pastoral Land Act**

Review of the *Pastoral Land Act* and Regulations with proposed amendments to:

- Provide a new methodology for calculating pastoral lease rents based on a new baseline of the capacity of the land to support livestock (carrying capacity) as opposed to the current method, which relies on unimproved capital value.
- Undertake minor administrative amendments and fix technical irregularities to improve the workability and interpretation of the Act and Regulations.

### **Environmental regulatory reform**

The NT Government has committed to improving the environmental regulatory framework and has established an environmental reform program to achieve this.

The program will:

- Deliver comprehensive reforms to the environmental regulatory system.
- Reform the *Environmental Assessment Act*.
- Create a fully functioning environment protection Act incorporating the *Waste Management and Pollution Control Act* and *Litter Act*, and including measures to manage the environmental impacts of mining activities.
- Amend the *Northern Territory Environment Protection Authority Act* to clarify the role, functions and powers of the NT EPA and to improve its accountability to government and the community.

During the year, the reform program concentrated on reforms to the environmental assessment and approval system, obtaining Government agreement to a number of policy matters. During 2018, exposure draft legislation on this element of the reforms will be released for public comment.

During 2018, focus will shift to the second stage of the reforms relating to the regulatory arrangements for management of wastes, pollution and the environmental impacts of mining. An information paper outlining regulatory approaches for these matters will be released.

The amendments to the *Northern Territory Environment Protection Authority Act* are also expected to be progressed during 2018-19.

### **Water Act**

Amendments to the *Water Act* will be introduced to:

- Implement the NT Government's decision to ensure mining and petroleum activities are subject to the *Water Act* including the requirement to obtain water licences in water control districts.
- Update the offences and penalty provisions to bring them into line with comparative provisions in interstate legislation.

Amendments to the *Water Act* to include a new beneficial use of Strategic Aboriginal Water Reserves to support the Strategic Aboriginal Water Reserve Policy will be progressed during 2018-19.

A program to identify strategic changes to the *Water Act* and Regulations has commenced, with proposals to be developed in consultation with other NT Government agencies, stakeholders, water advisory committees and licensees as well as those already identified through administrative operations and from various reports.

Changes to the Act to implement some of the 135 recommendations arising from the *Scientific Report into Hydraulic Fracturing* will also be progressed during 2018-19.

### **Nuclear Waste Transport, Storage and Disposal (Prohibition) Act**

Amendments to the *Nuclear Waste Transport, Storage and Disposal (Prohibition) Act* will clarify the application of the Act to naturally occurring radioactive materials generated by the oil and gas industry. These amendments are expected to be progressed during 2018-19.

## REPORT CARD FOR 2017-18

Achievements against the departments Strategic Plan 2017-2020.

### Strategic Plan Goal 1

Strategically improve scientific and community knowledge and understanding of water, soils, landscapes and biodiversity to better inform adaptive and responsive management.

Strategy	Achievements
<p>Undertake strategic integrated assessments of ground and surface water systems, land resources and biodiversity values to inform management and de-risk investment in regional development.</p>	<p>Provided area assessments of the extent of vegetation communities and soil landscapes across the McArthur, Bonaparte and Amadeus Basins and Arthur Creek and Velkeri Formations to the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory.</p> <p>Determined relative risk of water pollution for Darwin Harbour to inform the monitoring program design.</p> <p>Northern Stuart Corridor Exploring for the Future Project. Provided logistical support to communicate with community, pastoral and traditional owners regarding airborne surveys as part of a collaborative project in Geoscience Australia.</p> <p>Provided advice on geological, hydrogeological and hydrogeochemical data and understanding for the Howard and Daly River areas.</p> <p>Developed a Phase 1 model for the Mereenie Aquifer Project.</p> <p>Completed waterhole monitoring program and project report for the Lake Eyre Basin.</p> <p>Regional assessment of the Gunn Point area was undertaken in July 2017 for the extractives industry.</p> <p>Completed a survey for threatened Carpentarian Rock-rats on Wollogorang Station with Australian Wildlife Conservancy.</p>
<p>Implement robust monitoring systems to track and report on the health of the Territory's biodiversity, the condition of the Territory's rangelands, the health of Darwin Harbour and inland waterways, and the quality of the Darwin airshed.</p>	<p>Conducted an on-ground rangeland monitoring program on 57 pastoral leases, with 307 monitoring sites assessed for the Pastoral Land Board (comprising 27 percent of the pastoral estate). Prepared Land Condition Reports using the on-ground information gathered and integrated with remote sensing products.</p> <p>Continue to provide the Pastoral Land Board with information about the condition of the Northern Territory's pastoral estate for its 2016-17 Annual Report to the Minister on the condition and use of pastoral land.</p> <p>In collaboration with INPEX, refined mangrove mapping in Darwin Harbour to support a mangrove monitoring pilot project and implemented the 2017-2021 pilot program to monitor Darwin Harbour mangroves.</p> <p>The Weed Management Branch developed a Compliance Policy to guide its compliance activities, particularly in relation to gamba grass control in the Top End.</p> <p>Created the Darwin Harbour Report Card online reporting tool.</p> <p>Completed the Keep River Water Quality sampling program.</p> <p>Completed mangrove sediment accretion and erosion project in conjunction with Charles Darwin University under the INPEX Marine Monitoring Research Program.</p>

	<p>Completed water quality sampling to develop a baseline understanding of pesticides and nutrients in the Ooloo water allocation plan area.</p> <p>Completed annual coastal dolphin surveys in Darwin and Bynoe Harbour in collaboration with Larrakia and Kenbi Ranger groups.</p> <p>Completed fieldwork for benthic habitat map for Darwin and Bynoe Harbour. Comprehensive mapping products will be available in early 2019.</p> <p>Revised and designed an expanded ecological monitoring program across major National Parks in the Top End and completed monitoring surveys with revised methods in Nitmiluk National Park.</p> <p>Delivered Aboriginal Ranger Grant funding for Aboriginal ranger groups to undertake monitoring of terrestrial and marine ecosystems across the Territory, including seagrass monitoring by Kenbi and Dhimurru Rangers, marine turtle nesting by Crocodile Islands Rangers, fire, feral animal and weed management and outcomes by Thamarrurr, Bulgul, Tiwi, Ardjumarllarl, Arafura, Yirralka, Tennant Creek and Yugul Mangi Rangers.</p> <p>Continued to operate three Ambient Air Quality Monitoring stations, located at Palmerston, Winnellie and the newly installed station at Stokes Hill. In conjunction with the Department of Health, Bushfires NT, NT Fire and Rescue Services and other key Government agencies a media release alert has been developed and implemented for whenever particle pollution is elevated.</p>
<p>Develop and implement an online information strategy to improve community understanding of the Territory's natural resources.</p>	<p>Increased water resources education information and other contributions to the department's Facebook page to expand knowledge of the Water Resources Division's programs and services.</p> <p>Created rainwater harvesting, groundwater and water cycle, and water wise animations to educate and inform on the Territory's water resources.</p> <p>Maintained Groundwater Watch webpage to provide current groundwater levels to rural community members.</p> <p>Revamped the water inundation website for improved user readability.</p> <p>Established Web Map Service for web-serving natural resources spatial layers on compatible mobile, desktop and web applications.</p> <p>Developed draft three year biodiversity information strategic plan to enhance the management and discoverability of the NT's biodiversity information.</p> <p>Delivered updates to Flora and Fauna datasets on the department NRM Maps and Atlas of Living Australia (ALA) systems; and initiated engagement with external stakeholders to ensure available data is current and relevant.</p>

## Strategic Plan Goal 2

Advise on the effective planning, allocation, conservation and use of the Northern Territory's natural resources.

Strategy	Achievements
Implement water allocation planning in conjunction with water policy reform.	<p>Completed assessment and release of Annual Announced Allocations Tindal Mataranka and Adelaide River areas.</p> <p>Facilitated 22 water allocation planning meetings with seven water advisory committees across the Territory.</p>
Ensure that outputs from the Mapping the Future project inform natural resource allocation planning and decisions.	<p>Established priorities and the work program for Mapping the Future related water resource assessment projects.</p> <p>Developed methodologies for determining priority investigation areas in consultation with key stakeholders.</p> <p>Undertook extensive stakeholder engagement, cross referenced regional and industry policy, assessed land use capability and identified significant knowledge gaps to produce a short list of investigation areas.</p> <p>Commenced project implementation planning for land, water and biodiversity assessment data collection exercises.</p> <p>Year one priority program areas identified and targeted biodiversity assessments commenced at Gunn Point.</p>
Provide the best available information on the Territory's natural resources to support the Economic Development Framework.	<p>Published two soil and land sustainability reports and mapping in the Wadeye area of the lower Daly region and Orange Creek, south of Alice Springs.</p> <p>Published updated land use mapping across the Northern Territory, providing a contemporary assessment of how the Territory's land resource is being utilised.</p> <p>Provided written advice on 677 development proposals for various Northern Territory Government agencies, authorities and private entities.</p> <p>Assessed 11 native vegetation clearing proposals to support sustainable development under the <i>Pastoral Land Act</i> and <i>Planning Act</i>.</p> <p>Delivered \$600 000 repairs and maintenance works on engineer designed barrages around the Mary River Shady Camp area that are designed to slow the progression of saltwater into the freshwater systems of the river and its floodplains.</p> <p>Provided 614 geospatial data packages to the public, free of charge using unrestricted Creative Commons licensing, via the online 24/7 department Data Server and NR Maps web mapping system.</p>

Strategy	Achievements
<p>Develop and maintain integrated information systems for natural resource data and information accessible to stakeholders, land managers and the community.</p>	<p>Developed an enhanced NR Maps user interface, through added Google base maps and natural resource layers.</p> <p>Enhancements to the Flora NT website to make all flora records visible and accessible to the public.</p> <p>Maintained and enhanced data services to Flora NT and the Australian Virtual Herbarium (AVH) websites from NT flora specimen database (Holtze) and NT Vegetation Site Database (VSD).</p> <p>Improve the preservation of historical knowledge through the development of a legacy data catalogue and initiated processes to import legacy data into corporate database systems.</p> <p>Commenced planning for mobile data entry system for collection of Flora and Fauna field data.</p>
<p>Support the sustainable development of the pastoral estate through contemporary pastoral legislation.</p>	<p>The Pastoral Land Legislation Amendment Bill (2017) introduced in October 2017 to improve and contemporise the <i>Pastoral Land Act</i> and Pastoral Land Regulations.</p> <p>Continued to promote opportunities for non-pastoral development on pastoral leases for both pastoralists and potential investors. Three non-pastoral use permits were approved for tourism purposes; and one for aquaculture. Three clearing permits for purpose of improved pasture were also approved.</p> <p>Developed a new policy regarding Maximum Holdings to guide applications and to assist Ministerial decision making related to consent to transfer.</p> <p>Updated Pastoral Land Clearing Guidelines under the <i>Pastoral Land Act</i>.</p>



### Strategic Plan Goal 3

Develop and deliver robust and transparent assessment and regulation that balance the development of the Northern Territory with effective protection of the Northern Territory's unique environmental assets.

Strategy	Achievements
Reform, streamline and increase transparency of environmental regulatory systems in the Territory.	<p>Darwin Rural Area Licensing Policy established.</p> <p>Drafting of a new environment protection Bill to replace the <i>Environmental Assessment Act</i> commenced.</p> <p>Statutory review of the weed management plans for gamba grass, mimosa and bellyache bush completed.</p> <p>Compliance and Enforcement Framework developed for weed management.</p> <p>Commenced a review of the Northern Territory Land Clearing Guidelines under the <i>Planning Act</i>.</p>
Ensure that robust, evidence-based advice relating to natural resources informs all environmental impact assessments and approvals.	<p>Provided written submissions on 17 Notices of Intent, two draft Environmental Impact Statements and four Assessment Reports.</p>
Support the Northern Territory Environment Protection Authority to manage the regulatory framework to reduce the impacts of waste and pollution on the Territory's environment.	<p>Continued to support the NT EPA through approvals and administration of environment protection approvals and licences relating to;</p> <ul style="list-style-type: none"> <li>• collection, transport, storage and/or treatment of listed waste,</li> <li>• liquefied natural gas facilities,</li> <li>• abattoirs, and</li> <li>• aquaculture facilities.</li> </ul> <p>Worked closely with other jurisdictions to promote harmonisation of waste policies and legislation (e.g. hazardous waste, container deposit schemes, plastic bag ban).</p> <p>In relation to the Container Deposit Scheme (CDS) a number of coordinator, collection depot and CDS supply approvals were issued and/or administered.</p>
Ensure mining and petroleum activities are subject to the <i>Water Act</i> .	<ul style="list-style-type: none"> <li>• Commenced drafting of amendments to the <i>Water Act</i> to; <ul style="list-style-type: none"> <li>◦ ensure water use by mining and petroleum activities are regulated under the <i>Water Act</i>, and</li> <li>◦ revise the offence and penalties provisions.</li> </ul> </li> <li>• Discharges of wastewater from mine sites are regulated under the <i>Water Act</i> through the issue of waste discharge licences. In 2017-18, six Waste Discharge Licences (WDLs) were administered for mining related activities.</li> </ul>
Support and engage with stakeholders and the community on managing risks and mitigating the impact of waste on the environment.	<ul style="list-style-type: none"> <li>• Draft Illegal Landfill and Litter strategies were developed.</li> </ul>

## Strategic Plan Goal 4

Foster and sustain community participation from all regions of the Territory in sustainable natural resource use and management.

Strategy	Achievements
<p>Develop and maintain engagement and partnerships with stakeholders and the community to leverage knowledge and better manage the Territory's natural resources.</p>	<p>Continue working closely with Department of Infrastructure, Planning and Logistics on the management of weeds on both road reserves and vacant crown land.</p> <p>Further consolidated relationships with service corridor providers including gas, rail, Power and Water and Northern Territory Fire and Rescue Service to ensure active weed control programs are in place and being implemented.</p> <p>Conducted capacity building workshops with local weed management contractors in the Katherine and Darwin regions.</p> <p>Provide extension services to landholders (including pastoral lessees), developers and contractors on; erosion and sediment control measures, native vegetation clearing and land condition.</p> <p>Continued to work with industry to promote the adoption of consistent standards for erosion and sediment control planning and management across the Northern Territory.</p> <p>Delivered March 2018, Women in Water Symposium to provide a forum for Women in Water resource professions to showcase and share water resource research and projects.</p> <p>Delivered 14 class presentations at five schools, working with Power and Water's Living Water Smart team to deliver the <i>That's My Water!</i> 10-week Science, Technology, Engineering and Maths (STEM) water specific curriculum unit.</p> <p>Completed the Kenbi Fire Resilience Project – a partnership between Bushfires NT and the Northern Land Council and traditional owners to develop the Kenbi Area Bushfire Management Plan on the Kenbi Aboriginal Land Trust.</p> <p>Ongoing partnership programs with the Anindilyakwa Land Council on Groote Eylandt and Warddeken Indigenous Protected Areas (IPA).</p> <p>Conducted survey and compliance monitoring of crocodile population and harvest to ensure sustainable and high value industry.</p> <p>Worked with key stakeholders to establish bag limits and season length for the 2018 waterfowl hunting season. Hunting organisations participated in, the 2018 aerial survey program for magpie goose.</p> <p>Worked with the cattle industry and individual landholders across the Territory to document current approaches to wild dog management to inform the development of “best practice management guidelines” for wild dogs on the pastoral estates.</p>

Strategy	Achievements
<p>Support Aboriginal rangers and communities to protect the environment and create jobs.</p>	<p>Delivered an Aboriginal Ranger Grants program, providing funding for capital grants and establishment of a Conservation and Land Management Fund to improve conservation practices on Aboriginal land and sea. First round of grants provided; \$1.9 million Capital funding to 26 ranger groups to provide equipment and infrastructure and \$1.4 million in funding for 22 projects, covering fire, feral and weed management, documenting and protecting sacred sites and Rock Art, learning on country for communities and schools, engaging philanthropic support for land management and documenting state of the environment for Aboriginal lands.</p> <p>A partnership between Northern Territory Weed Management Branch, Gundjeihmi Aboriginal Corporation and Kakadu National Park is aimed at improving the management of salvinia at key locations in Kakadu.</p> <p>Presentation at the Grassy Weeds Workshop for Arnhem Land conducted by Arnhem Land Fire Abatement (ALFA) and Jawoyn – focus on how to remove gamba grass and opportunities for Rangers to assist with the process.</p> <p>Partnered with Traditional Owners to determine environmental flow requirements of the pig-nosed turtle in the Daly River as part of the National Environmental Science Program.</p> <p>Involved Larrakia Nation Rangers in groundwater monitoring and spring flow monitoring in Darwin Rural Water Control District.</p> <p>Worked with the Central Land Council, Traditional Owners, Ranger groups and pastoral managers to restore degraded wetland sites in Central Australia.</p> <p>Worked with Northern Land Council, Traditional Owners and ranger groups to monitor the population of saltwater crocodiles in coastal rivers across the Northern Territory.</p>
<p>Establish an Aboriginal Carbon Unit to deliver carbon abatement and economic development on aboriginal land.</p>	<p>Aboriginal Carbon Unit has been established within the department. The unit coordinates Government support for the Aboriginal carbon industry, and serves as a point of contact within Government for the industry.</p> <p>A draft Northern Territory Aboriginal Carbon Industry Strategy is being developed following extensive consultation with the industry throughout 2017-18.</p>
<p>Implement a strategic Aboriginal reserves policy and methodology to provide Aboriginal landholders with increased opportunity to access water resources for economic development.</p>	<p>Strategic Aboriginal Water Reserve Policy Framework was established in October 2017 and requires water allocation plans to specify a portion of the consumptive pool to be management for future economic development to benefit Aboriginal people.</p>

Strategy	Achievements
Develop digital information products to better inform community around contentious natural resource management issues.	<p>Provided digital TVs to rural area (Berry Springs, Howard Springs, and Coolalinga) to inform community regarding groundwater resource sustainability including promoting awareness through the Groundwater Watch education campaign.</p> <p>Produced spatial data and map packages for the Northern Territory Land and Water Suitability Program 2014-18.</p>
Develop a Coastal and Marine Management Strategy that protects our valued coast and marine environments while encouraging sustainable development and use by Territorians.	A Discussion Paper was released for community consultation asking for feedback on identified environmental, social, cultural and economic values and benefits of the Territory's coasts and seas, roles and responsibilities for managing these areas, and the challenges faced in managing this extensive multi-use environment. The feedback from the public consultation will be used to develop a final version of the Strategy, which is due to be completed by the end of 2018.
Establish the Darwin Harbour Advisory Committee.	Darwin Harbour Advisory Committee established, and meetings are held regularly.

## Strategic Plan Goal 5

Manage and mitigate threats to regional communities and our natural ecosystems and native flora and fauna through shared responsibilities and partnerships.

Strategy	Achievements
Support land managers to reduce the impacts of fire, feral animals and weeds on productive and natural systems.	<p>Cost benefit analysis tool developed for use on prickly acacia control through Commonwealth Government funding.</p> <p>Worked with the Department of Corrections to reduce neem in the Katherine River corridor.</p> <p>Support to the Roper River Landcare Group with their neem control program.</p> <p>Established a Compliance and Enforcement Unit within Bushfires NT.</p> <p>Continued support through regular visits to pastoral properties, and the provision of basic firefighter training to over 200 rural stakeholders.</p> <p>Provided advice to key stakeholder groups on how to best manage the impacts of feral animals.</p> <p>Completed a four year investigation of impacts of feral cats and fire regimes on reptiles and mammals in Kakadu National Park.</p> <p>Delivered Aboriginal Ranger Grant funding to Aboriginal ranger groups across the Territory to undertake fire, feral animal and weed management. Projects of one to three years duration approved with total funding over three years of up to \$2.3 million.</p>

Strategy	Achievements
<p>Progress a strategic approach to manage the increased risk of bushfire in the rural area caused by grassy weeds.</p>	<p>Completed comprehensive regional bushfire management plans for three of the Territory's five Fire Management Zones, with two more regional plans scheduled for completion in late 2018.</p> <p>Mimosa biocontrol – ongoing redistribution of the mimosa flea beetle 'nessie'. Continuing to work collaboratively with land managers and TNRM to reduce the impact of mimosa by active redistribution of 'nessie'.</p> <p>Weed Management Branch, Alice Springs region, in partnership with the Alice Springs Town Council, Cleanaway and Alice Springs Landcare Group have developed a system using wheelie bins to get declared cacti out of gardens and into the waste management facility while minimising the risk of spread and injury. This initiative has been promoted as the "Bin It Don't Spread" campaign. A similar initiative has also more recently been initiated in the township of Tennant Creek with the Barkly Shire Council.</p> <p>Commonwealth funded position for prickly acacia and mimosa has seen mapping, training and weed planning delivered to land managers across most of the Northern Territory.</p>
<p>Build community understanding of, and capacity to mitigate the impacts of wildfire, weeds and feral animals.</p>	<p>Developed new public information programs and materials on planning for and preventing bushfires for distribution prior to, and during, the 2018 Top End fire season.</p> <p>Delivered Aboriginal Ranger Grant funding to Aboriginal ranger groups to support learning on country for Aboriginal communities and schools on Ranger activities including fire, feral and weed management.</p>
<p>Provide flood monitoring and advice in consultation with other agencies for major 'at risk' communities.</p>	<p>Provision of flood warning system in Alice Springs and Rapid Creek in collaboration with NT Emergency Services.</p> <p>Collaboration with the Department of Infrastructure, Planning and Logistics to provide flood mapping for Katherine, Rapid Creek and Timber Creek.</p> <p>Undertook flood monitoring in major river systems for identified at-risk communities resulting in five minor, two moderate and two major flood warnings being generated by the Bureau of Meteorology.</p> <p>Undertook monitoring and provided 215 river level alerts to Department of Infrastructure, Planning and Logistics related to at-risk infrastructure.</p>

## Strategic Plan Goal 6

Maintain an organisation with the capacity and capability to deliver effective services and that nurtures its human resources.

Strategy	Achievements
Inspire and support a workplace culture that is collaborative, respectful and accountable.	<p>Review and launch of new performance management process. The Build our own staff talent (BOOST) program was launched September 2017; incorporates a whole of employee life cycle approach with improved tools for manager employee discussions.</p> <p>Internal training and information sessions held throughout the year covering topics such as travel, procurement and corporate credit card, and grant management.</p>
Build and enhance strategic leadership across the agency.	<p>Supported three staff to participate in the Public Sector Management Program.</p> <p>Held Senior Leaders forum over two days in March 2018, bringing leaders of the department together to foster collaborative networks and building strategic capability knowledge across the department.</p>
Implement targeted development programs to “grow our own” with an emphasis on succession planning.	<p>Provided University placement and school-based apprentice opportunities to nine students.</p> <p>Prioritised internal staff for development opportunities in the department by implementing a policy that temporary vacancies between 3-6 months would be advertised internally.</p>
Provide a safe working environment and promote safe practices in both office and field operations.	<p>Offering of Workplace Health and Safety (WHS) training to all WHS Committee members across the department.</p> <p>Regular offering of code of conduct and appropriate workplace behaviour training.</p> <p>Quarterly reporting to the Governance Board collating all WHS committee meeting minutes, key observations and incident reporting.</p>
Continue to improve business processes and streamline key internal systems.	<p>Established Darwin Rural Water Licensing Team to support water extraction licensing activities in the Darwin Rural area.</p> <p>Completed redesign of Water Resources functions to meet business needs including development of Water Planning and Engagement, Water Licensing and Regulation and Regulatory Reform Branches.</p> <p>Development of the Water Information Management System (WIMS) by Water Resources Division to provide effective project management.</p> <p>Developed a Water Resources Photo Database containing over 22 000 photographs to establish a historic record of field surveys.</p>

## WHAT WE ACHIEVED BY OUTPUT

### Flora and Fauna

Provides scientific assessment and monitoring of the Territory's native flora and fauna, and delivery of policy advice and support relating to the conservation and sustainable use of wildlife and management of feral animals.

This output is responsible for;

- assessing and monitoring the Territory's native flora and fauna,
- assisting landowners to manage the threat to our unique flora and fauna,
- supporting and managing the sustainable use of wildlife, and
- providing robust, evidence-base to Government, industry and the community relating to the biodiversity of the Northern Territory.

Services are provided from Darwin and Alice Springs.

Key deliverables	2016-17 Actual	2017-18 Budget	2017-18 Actual	2017-18 Budget	2018-19 Budget
Number of spatial biodiversity records for the Territory	2.45M	2.6M	2.9M	2.6M	2.69M
Number of biodiversity information requests met	2 400	2 400	2 400	2 400	2 400
Number of active inventory, monitoring and applied research programs	34	34	34	34	32
Number of management programs in place for sustainable wildlife management	6	8	8	8	9

### Performance Achievements in 2017-18

#### Completed

- ✳ Delivered Aboriginal Ranger Grants Program, including reporting and of the first round of funding under the Program.
- Completed annual monitoring of dolphin populations in Darwin Harbour and adjacent coastal waters, and dugong populations around the Territory coastline.
- Worked with Northern Land Council, Traditional Owners and ranger groups to complete annual monitoring of population of saltwater crocodiles in coastal rivers across the Northern Territory.
- Worked with Aboriginal elders and communities to document and preserve their biocultural knowledge; published a book titled 'Aboriginal flora and fauna knowledge from the east Kimberley, north Australia'.
- Completed a four year investigation of impacts of feral cats and fire regimes on reptiles and mammals in Kakadu National Park.
- Published 16 refereed scientific journal articles and eight books and book chapters.
- Completed a comprehensive aerial survey of magpie geese and nest numbers across Top End floodplains in May 2018, in order to develop recommendations to the Minister

about sustainable harvest levels for the 2018 hunting season and pest mitigation permits.

- Undertook fine-scale vegetation map for Groote Eylandt (with funding from the Anindilyakwa Land Council).
- Implemented aerial baiting for feral cats in selected areas of the most rugged parts of the West MacDonnell Ranges to improve their value as refuges for central rock-rat and other threatened mammals.

#### In Progress

- ✳ Working with government, industry, science, environment and community stakeholders to develop the Northern Territory's Coastal and Marine Management Strategy. A draft strategy was released for public comment, and the revised Strategy will be completed by the end of 2018.
- The development and implementation of the Mapping the Future Program, including assessing biodiversity values and environmental risks in potential new development areas. Commenced implementation of flora and fauna assessments in Gunn Point and Wadeye.

- Continued major projects (funded through the Ichthys Project Voluntary Offsets Agreement), to map marine habitats in Darwin and Bynoe Harbours; monitor dolphin populations in Darwin Harbour and adjacent coastal waters; and monitor dugong populations around the Territory coastline.
- Review of the conservation status of plant and animal species listed as threatened under the *Territory Parks and Wildlife Conservation Act* will continue through to 2022. There will be a period of Public Consultation on the first round of proposed changes to the 'Classification of Wildlife' (threatened species list) in the second half of 2018.
- Collaboration with Aboriginal elders and communities to document and preserve their biocultural knowledge, with work in the Elliott, Roper/Gulf, and Daly regions.
- Provide a robust evidence base to support the development of best practice guidelines for assessing and managing the impacts of wild dogs across the Northern Territory, in collaboration with Department of Primary Industry and Resources.
- Continued to work with Traditional Owners, Aboriginal rangers and pastoral managers to restore important central Australian waterholes for ecological and cultural outcomes. Work at Ilpili Springs has seen increased water flows, resprouting of vegetation and return of some animal species.
- Monitoring of native mammal and cat populations following 2017 baiting confirmed decreases in cat numbers and increases in the area used by Central Rock-rats and remote cameras are currently in place to monitor the efficacy of baiting in winter 2018.
- Continued a set of projects to clarify the factors causing small mammal decline, particularly the role of feral cats and unfavourable fire regimes, and management actions to address these.
- Commenced a new project (with funding from the Australian Department of Agriculture and Water Resources) to develop and trial a technique to control foxes that does not also harm dogs/dingoes.

## INVESTIGATING DRIVERS OF MAMMAL DECLINE – PROVIDING LESSONS ABOUT REPTILES

The Flora and Fauna division research to investigate the causes of mammal decline, has made a surprising discovery for reptiles.

The research results showed predation by cats, in synergy with other disturbance processes such as fire, could be adversely impacting reptile's species right across the Top End.

The Kakadu National Park project employing cat proof fencing was established in 2013 to investigate the effect of fire and feral cats on native animals. Three management treatments were applied, this included the removal of cats, fire inside fenced areas, and in areas not fenced.

The number of reptiles in the cat-excluded areas increased during the first two years of sampling at twice the rate of unfenced plots. Fire also had an effect with reptile abundance increasing the longer an area was fire free. The research showed a slight increase in the number of different kinds of reptiles inside the fence.

The research highlights that cats do not just eat mammals, and that observing the interactions between predation and fire can help provide alternative management options for conserving wildlife besides killing feral cats.



*Two lined dragon*



*Cat proof fence*



- Continue programs using track-based monitoring plots to assess and monitor the conservation status of threatened and other significant species in Arid Australia. These include the Central Land Council's Bilby Blitz program and the new Arid Zone Monitoring project funded by the Commonwealth Government's NES Program.
- Working with Australian Wildlife Conservancy in their construction of the largest area on mainland Australia that is free of feral predators (foxes and cats), and planning the subsequent reintroduction of species that have gone locally extinct, or the recovery of other threatened species that have persisted in the area.

### Ongoing

- Curating the Northern Territory herbaria (Darwin and Alice Springs) as the authoritative collection of Northern Territory plant specimens, providing plant identification services and maintaining and updating the FloraNT web portal, which provides public access to the collection and associated databases.
- Managing the very large biodiversity datasets collated by the division. The datasets are the primary information resource about the distribution and status of flora and fauna in the Northern Territory. Work is ongoing to improve data management standards and make all data publicly discoverable, including through NR Maps, FloraNT electronic flora, and the Atlas of Living Australia.
- Undertaking systematic annual surveys of wildlife populations as required by formal Management Programs, including for saltwater crocodiles and magpie geese.
- Providing authoritative advice on NT's biodiversity to the Northern Territory Government, Parks and Wildlife Commission of the Northern Territory (PWCNT), Land Councils, land managers, developers and consultants, industry, other stakeholders and community, including advice on sustainable development of the Territory through the EPA's development assessment process.
- Administration of part four of the *Territory Parks and Wildlife Conservation Act*, including:
  - Maintaining the lists of threatened species, data deficient species and restricted range species in the Northern Territory, and liaising with the Commonwealth Government and other jurisdictions on planning conservation initiatives for threatened species.
  - Advising on permitting for wildlife use, wildlife take and other wildlife issues.

## SUPPORTING THE EXTRACTIVE INDUSTRY THROUGH STRATEGIC ASSESSMENT

The Flora and Fauna division play a key role to identify sustainable opportunities for development that are in line with the protection of the Territory's unique plants and animals.

Future development resources can conflict with conservation requirements for high value biodiversity assets. The Extractives Industry is particularly interested in sand and gravel resources in the greater Darwin region to service many current and future developments.

In response to the reservation of a high value area of sandsheet heath habitat that occurs on the sand, the Flora and Fauna division has undertaken a strategic assessment of the Gunn Point region. Woodland, wetland and rainforest habitats were evaluated to provide clarity on areas without limitations for the extractives industry.

The division provided recommendations on how to protect the most valuable areas in the region and were communicated to the Extractive Industry. The key outcome of this work is that future extractive tenements are only established in areas that pose a low risk to flora and fauna, or where important species or habitats are present how to protect them is clear.



*Ptychosperma macarthurii* – a threatened plant that occurs in Rainforest



*Black-footed Tree-rat*

- Undertaking biodiversity monitoring programs in the high conservation value national parks in the Territory, and coordinating with PWCNT's Integrated Conservation Strategy reporting and annual planning for these parks.
- Providing advice on environmental risks and biodiversity values to the development assessment process, public, industry and government.

**Future priorities**

- ✳ Complete the Northern Territory Coastal and Marine Management Strategy.
- ✳ Roll out the Aboriginal Ranger Grant program, including call for applications for the second round (2018-19) of Capital Fund and Land Management and Conservation Fund grants in September-October 2018.

- Continue implementation of the Mapping the Future Program, including assessing biodiversity values and environmental risks in potential new development areas.
- Progress a strategic and proactive approach to assessing and managing risks to biodiversity in the greater Darwin region.
- Complete a Threatened Species Management Plan for Groote Eylandt, and assist the Land Council and Rangers to implement the plan.
- Implement conservation and recovery programs for threatened plants in the southern NT, including Red Cabbage Palm and Waddy Wood, in collaboration with PWCNT and Aboriginal ranger groups.
- Investigating of the use of environmental DNA (eDNA) as a new technology to detect terrestrial animals as an alternative survey technique.

## THE LARGEST MAINLAND AREA IN AUSTRALIA FREE OF FOXES AND CATS IS COMING TO THE NT

The department has been actively involved in the Australian Wildlife Conservancy's (AWC) project at their Newhaven Sanctuary. The project involved a 44 kilometres fence around what will be Australia's largest area (9400 hectares) on the mainland that is free of feral mammalian predators.

The fence has been completed with the help of Warlpiri Rangers and AWC to clear the area of foxes and cats. When the area is free the AWC is planning to introduce species that have become locally extinct.

The Northern Territory Government administered the grant from the Commonwealth Government and has provided advice, clearances and approvals for the project. The first animals for reintroduction to the Newhaven Sanctuary was provided by the Northern Territory Government.

In November 2017, the AWC built a smaller fence within the larger one to have a 143 hectare area free of feral predators. During November and December a joint operation with the Flora and Fauna division, Parks Wildlife and Heritage and AWC, saw 28 endangered Mala (Rufous Hare-wallabies) relocated from a 100 hectare enclosure at Watarrka National Park to the new enclosure

at Newhaven. The reports show all the Watarrka Mala have survived the relocation and many of the females have weaned young and/or have new pouch young.

In the future, the Mala will be released into a much larger area once monitoring shows that the area is fox and cat free.

There are already plans by the department and Parks and Wildlife NT to start planning the relocation of Central Rock rats, which will come from wild populations in the West MacDonnell Ranges.





## Rangelands

Provides scientific assessment and monitoring of the Territory's land resources and delivery of extension services, policy advice, and regulation of use and threats to these resources.

This output is responsible for;

- assessing and monitoring the Territory's land resource, and
- assisting landholders in managing the threat and impact of weeds.

Services are provided from Darwin, Katherine, Tennant Creek and Alice Springs.

Key deliverables	2016-17	2017-18	2017-18	2018-19
	Actual	Budget	Actual	Budget
Percentage of pastoral estate monitored in the year <sup>1</sup>	24%	25%	27%	20%
Land clearing applications assessed <sup>2</sup>	33	20	11	11
Area of land receiving weed extension services (000 km <sup>2</sup> ) <sup>3</sup>	250	250	205	250
Land development proposals assessed <sup>4</sup>	685	550	677	600
Soil profiles described and tested <sup>5</sup>	679	600	610	375

1 The increase on the previous year was the result of a targeted effort to bring the program back into a five year monitoring cycle. It should be noted that the number of leases across the NT increased from 223 to 224.

2 The decrease reflects the number of clearing applications received.

3 Total area of land parcels visited where weed extension services have been provided. Reduced resources within the Barkly region for last reporting quarter has resulted in reduced capacity.

4 Increase is reflective of an increase in the number of development applications received.

5 The reduction in 2018-19 is due to the cessation of the Commonwealth funded 'Keep River Plain' project.

## Performance Achievements in 2017-18

### Completed

- Assessed nine applications to clear native vegetation that were lodged under the *Planning Act*.
- Assessed three applications to clear native vegetation that were lodged under the *Pastoral Land Act* to support improved pasture and aquaculture as an approved non-pastoral use.
- Assessed and approved four non-pastoral use permits for the purposes of tourism (three) and aquaculture (one), supporting ongoing diversification of the pastoral estate.
- Facilitated continued consideration of amendments to the *Pastoral Land Act* and Regulations by Government. Consideration of proposed provisions relating to non-pastoral use sub-leasing were removed and deferred subject to consultation with key stakeholders.
- Carried out rangeland monitoring activities across 57 pastoral leases; in ten of the 11 pastoral districts of the Northern Territory Pastoral Estate. In total 302 monitoring sites established were assessed under the provisions of the *Pastoral Land Act*.
- Provided written advice on 677 development proposals for various Northern Territory Government agencies and authorities and private entities.
- Delivered \$600 000 of repairs and maintenance works to engineer designed barrages in the vicinity of Shady Camp barrage on the Mary River. The works are designed to slow the progression of saltwater into the freshwater systems of the river and its floodplains.
- Published two soil and land suitability reports and mapping in the Wadeye area of the lower Daly region and Orange Creek, south of Alice Springs.
- Published an updated land use map of the Northern Territory, providing a new snapshot on how the Territory's 1.35 million square kilometres is being used. The project accurately mapped individual agricultural commodities such as mangoes, sandalwood and melons while also providing new insights into the areas of land under mining, utilities, industry, commercial services, residential, and peri-urban development.
- Undertook statutory reviews of the weed management plans for gamba grass, mimosa and bellyache bush.
- With representatives from Thamarrurr, Asyrikarrak Karim (Peppimenarti) and the Wudikapildiya Ranger groups, the Weed Management Branch undertook 2 060 square kilometres of aerial mimosa survey over the Daly River region and in Arnhem Land for land managers to better prioritise control and manage mimosa.
- Undertook gamba grass aerial survey of 400 square kilometres around the Mary River to plan control and prevent invasion into Kakadu National Park.
- Completed the first comprehensive aerial survey for mimosa on the Legune Floodplain. Survey encompassed over 10 000 hectares and was crucial in establishing the extent of mimosa on the floodplain. The survey provided current mimosa distribution data to the Project Sea Dragon grow out facility weed management plan.
- Inspected all pastoral properties with mesquite in the Katherine region, with all known infestations under monitoring and surveillance.
- Undertook second half billabong treatment for cabomba in Darwin River with extensive monitoring for offsite herbicide effect (no effect observed).
- Assessed three permit applications for the utilisation of gamba grass and undertook permit audit inspections.
- Conducted weed risk assessment of tully grass and sagittaria across the Northern Territory.
- Completed 142 road side inspections for gamba grass management compliance. Issued 128 weed control orders for non-compliance and four infringements notices in the Darwin rural and Katherine areas.
- Delivered the 2017-18 season Gamba Action Program (GAP), distributing over 20,000L of free herbicide and providing equipment loans to a record 2 326 participants in the Top End and Katherine regions. The GAP helps landholders comply with legislation, reduce fuel loads and limit further spread of gamba grass.
- Delivered the Katherine Neem Blitz program to over 250 participants.
- Inspected all pastoral leases with recorded mimosa infestations in the Katherine region and ensured landholders are effectively implementing eradication programs.

### In Progress

- Soil and land suitability mapping in the Larrimah Township, Roper River valley, East Arnhem, Beswick, Barkly, Keep River Plain and Dunmarra regions.
- Land resource mapping of Auvergne Station in the northern Victoria River District.
- In collaboration with INPEX, refine mangrove mapping in Darwin Harbour to support a mangrove monitoring pilot project.
- Working on the implementation of the statutory weed management plan for athel pine which includes ongoing collaboration with affected landholders in the upper Class A-zone of the Finke River catchment, removal of amenity plantings along with the development of a compliance plan.
- Revision of the Alice Springs Regional Weed Management Plan 2013-18.
- Undertaking trials into the use of the granular herbicide Tebuthiuron for the control of rubberbush in Alice Springs and Tennant Creek.
- External peer review of the Cabomba Eradication Program and reduction of the quarantine area to the last remaining section of Darwin River.

### Ongoing

- Implementation of the gamba grass compliance program within the Darwin and Katherine regions.
- Opuntia (or prickly pear) "Bin it, don't spread it" campaign for cacti control in the arid region continuing in Central Australia.
- Working towards the eradication of prickly acacia from the Barkly Tablelands through assistance to landholders.
- Third and fourth half billabong treatments for cabomba in Darwin River scheduled for September 2018 and 2019.
- Continue delivery of the Gamba Action Program.
- Sagittaria detection and eradication measures continuing.

### Future priorities

- Continue to develop and refine the rangeland monitoring program across the pastoral estate using on-ground and remote sensing methodologies.
- Under the Mapping the Future Program undertake land resource mapping in the Katherine municipality.
- Amendments to the statutory mimosa and bellyache bush weed management plans.
- Undertake statutory review of the cabomba, neem, prickly acacia, mesquite and chinee apple weed management plans.
- Implement Cabomba Eradication Program up to 2028 and declare cabomba eradicated from all of Darwin River.
- Expanding the weed compliance program (1 263 road side inspections already planned for the 2018-19 gamba grass control season).

## A NEW LAND USE SNAPSHOT OF THE TERRITORY

In collaboration with the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), the department published an updated land use map of the Northern Territory. The study was supported by the Northern Territory Farmers Association and the Northern Territory Department of Primary Industry and Resources.

The study utilised European Space Agency satellite technology (Sentinel) and high resolution aerial imagery, combined with a department app used on smartphones and field tablets, to record the location, land use and collect photographs at 2,847 sites.

The new land use map provides a snapshot on how the Territory's 1.35 million square kilometres is being used. Although the study indicated that a very large proportion of the Territory is still grazed native pastures, Aboriginal land or conservation areas, the project accurately mapped individual agricultural commodities such as mangoes, sandalwood and melons while also providing new insights into the areas of land under mining, utilities, industry, commercial services, residential, and peri-urban development.

The new information is critical for updating the economic profile of agricultural industries and protecting these from biosecurity risks as well as managing water resources and biodiversity.

The project's findings are summarised in the report, Northern Territory Land Use Mapping for Biosecurity 2016 available from the Northern Territory Library.



*Bart Edmeades, land use mapping officer uses the new land use smartphone app to record an Okra crop in the Marrakai area.*

## CABOMBA SUCCESS – QUARANTINE AREA REDUCED ALONG DARWIN RIVER

The department's dedicated eradication program since 2004, has declared the eradication of Cabomba from the upper half of the Darwin River quarantine area.

Cabomba has been effectively eradicated and has not been detected in the upper reaches of the river for over ten years. Land and water surveys completed during the dry season have not detected any cabomba in the lower half of Darwin River. The last time it was detected, in this section (Lok Landji Billabong) was in January 2017 and was followed by an intensive two-year control program.

The department will lift the quarantine area over the upstream part of Darwin River, between Old Bynoe and Leonino Roads, Darwin River, during September 2018.

The earliest date that cabomba could be declared eradicated from the remaining downstream part of Darwin River, including Lok Landji Billabong, is January 2027. Two more herbicide treatments for cabomba in Lok Landji are scheduled for September 2018 and 2019. The quarantine area over that section will remain in place.



## Water Resources

Scientific monitoring and assessment, allocation and regulation of the Territory's water resources for sustainable use, and the delivery of flood forecasting services.

This output is responsible for;

- monitoring and assessing the Territory's water resources,
- water planning and policy functions to meet the requirements of the environment whilst also supporting water based development,
- water licensing and regulatory activities in compliance with the *Water Act* and regulations,
- bore drilling services, and
- natural resource mapping and spatial data information services.

Services are provided from Darwin, Katherine and Alice Springs.

Key deliverables	2016-17	2017-18	2017-18	2018-19
	Actual	Budget	Actual	Budget
Number of water assessment projects completed <sup>1</sup>	4	4	1	-
Proportion of water allocation plans covered by annual water monitoring programs <sup>1</sup>	100%	100%	100%	-
River, coastal regions and communities covered by flood risk mapping <sup>1</sup>	35	40	35	-
Annual Report cards on aquatic health of Darwin Harbour published <sup>1</sup>	Yes	Yes	Yes	-
Water allocation plans in effect <sup>2</sup>	-	-	4	7
Technical and scientific reports completed and publicly available <sup>2</sup>	-	-	5	10
Flood warning stations providing alerts to relevant authorities <sup>2</sup>	-	-	63	66
Water extraction licences issued <sup>2,3</sup>	-	-	70	190
Bore construction permits issued <sup>2,4</sup>	-	-	198	145
Onsite compliance inspections completed <sup>2</sup>	-	-	453	470

<sup>1</sup> 2017-18 is last year of this measure. New measures implemented.

<sup>2</sup> New Measure commenced in 2017-18.

<sup>3</sup> An increase is expected in 2018-19 due to the finalisation of water applications in the Darwin Rural area.

<sup>4</sup> The decrease in 2018-19 reflects an expected reduction in the number of new environmental monitoring bores.

### Performance achievements in 2017-18

#### Completed

- Finalised Darwin Harbour Report Card and made available to the public via the web in a more accessible format.
- Completed public consultation on the draft Western Davenport Water Allocation Plan five year review.
- Completed innovative imagery analyses and report published online to identify potential groundwater dependent ecosystems in the Western Davenport and Ti-Tree water control districts that has informed the preparation of water allocation plans.
- Completed and published online technical and scientific reports including; Water resources of the Wildman River area; Development of a groundwater flow model Berry Springs; Water Quality of the Roper River 2012-2016; Water resources of Tennant Creek North; and Pesticides and nutrients in the Ooloo Aquifer.
- Published the Preliminary Assessment of Surface Water Resources and Flooding Potential within the Elsey Creek and Newcastle Creek Catchments.
- Completed water quality and anthropogenic pressure indicator pilot project plan for Darwin Harbour under the Ichthys Project Voluntary Offsets Agreement.

- Completed 76 percent of recommendations arising from the Independent Review of Water Extraction Licences.
- ✱ Finalised and published the Strategic Aboriginal Water Reserve Policy Framework.
- Facilitated 22 meetings of seven Water Advisory Committees, which advised on the preparation and implementation of water allocation plans at Howard, Ooloo, Katherine, Mataranka, Western Davenport, Ti Tree and Alice Springs.
- Provided flood forecasting services for key at risk communities throughout the Territory for the 2017-18 wet season.
- Constructed and commissioned a gauging station on the Townsend River to provide flood alerting for the Buntine Highway, on behalf of Department of Infrastructure, Planning and Logistics.

#### In progress

- Publish detailed water assessment work undertaken by the department including the reports on the Georgina Basin Groundwater Assessment - Daly Waters to Tennant Creek.
- Continue to undertake the feasibility study for Ord Stage 3 – Land and Water Investigation, funded by the Australian Government through the National Water Infrastructure Development Fund – Feasibility Component.
- Work with the Rapid Creek Water Advisory Committee on a Water Management Plan for the Rapid Creek catchment.
- Undertake pesticide monitoring of groundwater in the Mataranka area.
- Determine environmental flow requirements of the pig-nosed turtle in the Daly River, with partner organisations, as part of the National Environmental Science Program.
- Work collaboratively with Rangers in the Roper River community to monitor river water quality.
- Contribute to the development and implementation of the Mapping the Future Program, including undertaking water assessments in potential new development areas.
- Complete Gove, Wadeye and Georgina Basin water resource assessments and reports.
- Complete hydrogeological assessment of the Mereenie Aquifer System including rehabilitation of Roe Creek monitoring bores.
- Undertake the Southern Stuart Corridor Exploring for the Future Project in collaboration with Geo Science Australia.
- Undertake further studies to identify groundwater dependent ecosystems in the arid zone to inform water allocation planning.
- Undertake water quality and sediment studies for Darwin Harbour under the Ichthys Project Voluntary Offsets Agreement.
- Undertake assessment of anthropogenic pressure indicators for Darwin Harbour under the Ichthys Project Voluntary Offsets Agreement.
- Complete the Northern Territory Irrigation Feasibility Study for Manage Aquifer Recharge project in selected sites.
- Finalise a study of the Rocky Hill area to determine the longer term impacts of irrigation on the groundwater system.
- Continue the community engagement information and education campaign on groundwater in the Darwin Rural area.
- Prepare mapping products to improve flood preparedness for Katherine (town and rural areas).
- Extend the Daly Roper Water Control District to include the Beetaloo Sub-basin and remake it as the Daly Roper Beetaloo Water Control District including declaring beneficial uses, water quality standards and exemptions for the new water control district as per recommendation 7.7 in the *Final Report of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory*.
- Complete drafting of the Ooloo Dolostone Aquifer, Ti-Tree Aquifer, Mataranka Tindall Limestone Aquifer and Howard Water Allocation Plans for key stakeholder and community consultation to declare a water allocation plan.
- Construct and commission new gauging stations on the Armstrong River and Wilton River to provide flood alerting for the Buntine and Central Arnhem Highways on behalf of Department of Infrastructure, Planning and Logistics.
- Commence a broad ranging review of the *Water Act*, to drive the future regulatory reform agenda.
- ✱ Introduce of amendments to the *Water Act* to allow its application to mining and petroleum activities and bring its offences and penalties into line with water industry best practice.
- Finalise the Western Davenport Water Allocation Plan five year review.





### Ongoing

- Develop and implement a monitoring program and sustainable water extraction model for the Palmerstone Dolostone Aquifer in consultation with partner agencies and major water users, to inform a sustainable water use plan.
- Undertake Berry Springs microbial study to identify the source of contamination (and public closure) to the Berry Springs swimming area.
- Undertake a long-term monitoring program for stream health in Rapid Creek.
- Undertake river health monitoring for the Lake Eyre Basin River Assessment program.
- Maintain flood warning stations providing alerting services to NT Emergency Services, Bureau of Meteorology and other relevant authorities.
- Provide support to the independent Darwin Harbour Advisory Committee to enable completion of the revised Darwin Harbour Strategy and Implementation Plan.

### Future priorities

- Establish water advisory committees and development of new water allocation plans for the Beetaloo North and Beetaloo South water allocation planning areas as per recommendation 7.7 in the *Final Report of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory*.
- Undertake water assessment studies and publish reports for the Bonaparte Plains East, Orange Creek and Gunn Point areas.
- Complete preparation of an Amendment Bill to make minor changes to the *Water Act* to improve administrative efficiency, incorporate Strategic Aboriginal Water Reserves and implement recommendations of the *Final Report of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory*.
- Work with partner agencies to deliver the recommendations in the *Final Report of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory*.
- Develop a surface water flood harvest policy to guide the assessment of large scale surface water extraction licence applications.
- Prepare mapping products to improve flood preparedness for Adelaide River (town) and Rapid Creek detention basin.

## INVESTIGATING EXPANSION OF IRRIGATED AGRICULTURE THROUGH MANAGED AQUIFER RECHARGE

Managed Aquifer Recharge (MAR) is a technique used globally to increase groundwater storage through artificial recharge. It involves topping up groundwater aquifers with captured water. Considering northern Australia's long dry season and relatively short wet season, MAR has the potential to play a major role in water resource development and management.

The key advantages of MAR over larger dam storages are the lesser costs associated with infrastructure including storage, piping and pumping of water, minimised evaporation losses, its scalability as well as being less vulnerable to a variable wet season.

In conjunction with consultants Jacobs and a cross agency project management team (steering committee), the department investigated the feasibility of Managed Aquifer Recharge in the Northern Territory and the potential role it may play in developing northern Australian agriculture through an incremental approach to developing irrigated agriculture, starting on a small scale.

The project was funded by an Australian Government \$985 000 contribution under the National Water Infrastructure Development Fund. This department and other agencies contributed over \$250 000 in value in terms of in-kind contributions. The department's role included project management, site survey and investigative drilling. As the overall project manager, the Water Resources Division worked in collaboration with the consultant, Jacobs, providing technical input and oversight, as well

as managing the funding and coordinating the steering committee.

The project was delivered in three stages with separate reports produced for each stage.

Stage 1 - Preliminary assessment of feasibility for a number of potential sites across the NT

The potential sites for study were determined at the commencement of the project and agreed by the Steering Committee. The MAR options were detailed and costed on an equivalent cost per megalitre basis to deliver the water. An agricultural economic study was also completed, based on a variety of crop types to compare economic viability.

Stage 2 - Assessment of sites selected for detailed study.

Based on the results of Phase 1, three sites were studied in detail. Two sites were indicated to be non-viable, while a site on the King River near the Stuart Highway was indicated to have potential for development. The most cost effective MAR scheme at this site would involve the capture and storage of a maximum of 18 000 megalitre per year using an injection borefield. The cost of water associated with this development is approximately \$150 per megalitre.

Stage 3 - Documentation of a Business Case for Investment.

This phase provided a summary document of outcomes and the economic analysis underpinning the Upper King River study.



*Fergusson River upstream of Stuart Highway (near Tindall Limestone outcrop)*



*Fergusson River just upstream of Stuart Highway*

## Bushfires NT

Provides support to landholders in the management and mitigation of wildfire and assists volunteer brigades in fire management and suppression outside the Territory's urban centres.

This output is responsible for;

- supporting landholders in the management and mitigation of wildfire, and
- providing support and training to volunteer bushfire brigades across the Territory.

Services and Support are provided from Darwin, Batchelor, Katherine, Tennant Creek and Alice Springs.

Key deliverables	2016-17 Actual	2017-18 Budget	2017-18 Actual	2018-19 Budget
Number of stakeholders trained	226	400	318	300
Number of Authorised Bushfire Volunteers and volunteer Fire Wardens	316	550	408	520
Formal fire management planning meetings with stakeholders <sup>1,3</sup>	-	-	172	243
Compliance inspections under the Bushfires Management Act <sup>1,3</sup>	-	-	3 632	4 500
Permits to burn issued <sup>2</sup>	-	-	-	1 280
Planned burns attended by Bushfires NT or authorised volunteers <sup>2</sup>	-	-	-	354

<sup>1</sup> New measure commencing 1 July 2017.

<sup>2</sup> New measure commencing 1 July 2018.

<sup>3</sup> The 2018-19 budget increase is due to additional resources being allocated and improved planning and reporting.

### Performance Achievements in 2017-18

#### Completed

- Regional bushfire plans completed for Savanna, Vernon Arafura and Arnhem regions.
- Completed the Kenbi Fire Resilience Project – a partnership between Bushfires NT and the Northern Land Council and traditional owners to develop the Kenbi Area Bushfire Management Plan on the Kenbi Aboriginal Land Trust.
- ✳ Established the Aboriginal Carbon Unit.
- Developed the Bushfires NT Emergency Management Plan to provide reference for incidents when an increased, multi-agency response is required.

#### In progress

- Regional bushfires plans for Barkly and Alice Springs will be finalised during 2018-19.
- Accredited training of Bushfires NT operational personnel in air observation for the provision of an accredited air capability for the Territory.
- Finalise a Northern Territory Aboriginal Carbon Industry Strategy, to support the consolidation and expansion of the emerging carbon industry on Aboriginal Land in the Territory.
- Development and implementation of the Bushfires Emergency Management System.

- Construction of a new Bushfires NT headquarters to house and merge the Winnellie and Batchelor offices.
- Improved public advice messaging during fire incidents, including the provision of Emergency Alerts and Warnings.

#### Ongoing

- Continue to work on strengthening volunteer recruitment and retention with 12 month study commencing July 2018.
- Increase the level of consultation, engagement and recognition of volunteer brigades and volunteers.

#### Future priorities

- A Bushfires Volunteer Strategy to be developed during 2018-19 to guide future support for volunteers and to strengthen volunteer recruitment and retention.
- Improvements to training for volunteer and staff including the introduction of nationally accredited training at advanced levels in key operational areas.
- Review and improvement of volunteer fleet management arrangements to ensure volunteer brigades are provided with best possible quality vehicles and equipment.
- Improvements in quality and replacement rate of personal protective equipment provided for volunteer fire-fighters.

## THE NEW BUSHFIRES EMERGENCY MANAGEMENT SYSTEM AND IMPROVEMENTS TO PUBLIC INFORMATION AND WARNINGS

The Bushfires Emergency Management System (BEMS) will assist Bushfires NT (BFNT) operational personnel in capturing the end-to-end lifecycle of an incident including:

- Digitising the current Permit to Burn and Planned Burning processes.
- Developing an integrated incident management system for Bushfires NT personnel.
- Developing an integrated incident management system for volunteer brigades.





The first stages of the Project were completed in December and implementation commenced in February 2018. BFNT staff members are now able to issue burn permits and record fire incident information in real time. The roll out to volunteer brigades is expected to occur later in the year, after the 2018 Top End fire season.

Work is progressing on new arrangements and processes to improve the dissemination of public information and warnings during

fire incidents. This includes the adoption of nationally recognised symbols to reflect alert levels being applied to an improved version of the NT Fire Incident Map. The upgraded map will incorporate both BFNT and NT Fire and Rescue Service incidents displayed and updated from the respective agency incident management platforms.

In addition access has been granted to the Emergency Alert System, which will allow BFNT to send out Emergency Alert messages to local residents in the event of a bushfire.



Symbol	Alert Level	Description
	Advice	A fire has started. There is no immediate danger. Stay up to date in case the situation changes.
	Watch and Act	There is a heightened level of threat. Conditions are changing and you need to start taking action now to protect you and your family.
	Emergency Warning	An Emergency Warning is the highest level of Bushfire Alert. You may be in danger and need to take action immediately. Any delay now puts your life at risk.
	Planned Burn Advice	A planned burn is currently underway. Firefighters are managing the burn but flames and smoke may be visible.

Incident Status	Description
Going	A fire which is spreading on one or more fronts. Effective containment strategies are not in place for the entire perimeter.
Being Controlled	Effective strategies are in operation or planned for the entire perimeter.
Under Control	The fire is at a stage where fire fighting resources are only required for patrol purposes and major re-ignition is unlikely.
Planned Burn Underway	Planned burns are carried out as part of a program to reduce bushfire risk to communities.

## Environment

The environment is protected through identifying, managing and mitigating potential impacts and risks from human activities.

This output is responsible for;

- providing services that support the Northern Territory Environment Protection Authority (NT EPA),
- advising Government on NT EPA assessment reports,
- managing the regulatory framework to reduce the impact of waste and pollution on the Territory environment, and
- developing and implementing strategic policy to ensure environmentally sustainable practices and behaviour.

Services are provided from Darwin.

Key deliverables	2016-17	2017-18	2017-18	2018-19
	Actual	Budget	Actual	Budget
Environmental assessment reports provided to the Minister	3	6	4	2
Decision on whether Environmental Impact Assessment required <sup>1</sup>	26	30	17	20
Assessment terms of reference and reports issued within statutory or agreed timeframes	100%	100%	100%	100%
Waste and pollution approvals and licences	171	200	217	200
Container deposit scheme approvals <sup>2</sup>	363	270	1 138	1 091
Compliance audits conducted	102	110	115	120
Responses to pollution incidents <sup>1</sup>	879	1 100	907	1 100
Environment grants to promote ecologically sustainable practices	\$1M	\$1M	\$1M	\$1M
Stakeholder Satisfaction (NTEPA satisfaction) <sup>3</sup>	-	-	4	≥5

<sup>1</sup> Measures are subject to annual volatility.

<sup>2</sup> The increase is due to industry changes, including the implementation of material sorting and the expansion of container deposit schemes in New South Wales and Queensland, and increasing industry participation.

<sup>3</sup> New measure.

## Performance achievements in 2017-18

### Completed

- \* Developed a five-year funding agreement with the Local Government Association of the Northern Territory (LGANT). LGANT received \$120 000 in 2017-18 and will receive \$150 000 in the following years, primarily to work with local councils to improve waste management practices.
- Administered the 2017-18 round of the Environment Grants program that provided \$1 047 524 to organisations for projects that reduce environmental harm and promote sustainable behaviour.
- Supported the management of waste and pollution by the NT EPA through administering six environmental protection approvals and 153 environment protection licences, operating three ambient air quality monitoring stations, responding to over 900 reports received through the Pollution Hotline, and undertook two successful prosecutions in relation to noise and waste storage.
- Administered the Container Deposit Scheme, which saw over 110 million containers redeemed at NT collection depots during 2017-18.
- Supported sustainable development in the Northern Territory, through completion of assessment reports for four major projects (TNG Ltd Mount Peake; Arafura Resources Ltd Nolans Rare Earths; Tellus Holdings Ltd Chandler facility; Intrapac Projects Pty Ltd Noonamah Ridge Estate), as well examining 16 proposals for potential consideration under the *Environmental Assessment Act*.

### In progress

- Providing high quality advice and administrative support to the NT EPA to complete the environmental impact assessments of the McArthur River Mine – Overburden Management Project, and the environmental impact assessment of other major projects.
- Implementing the NT EPA's administrative reforms of the environmental impact assessment process to increase certainty and improve transparency. Reforms in this period include publishing the *Environmental Assessment Guidelines: NT EPA Environmental Factors and Objectives*; and *Opportunities and Timeframes for Community Engagement in the Environmental Impact Assessment Process*.
- Reviewing the operations of the Northern Territory container deposit scheme as required by the *Environment Protection (Beverage Containers and Plastic Bags) Act*.
- ✳ Introducing legislation to implement Government's commitment to develop an environment protection act for the NT.
- Continue to support the NT EPA with the proactive inspections of industry types and premises with known impacts to waterways and stormwater, and ongoing programs to educate and improve environmental performance of industry and service sectors.
- Finalising the NT Noise Management Framework Guideline which for the first time will provide a consistent approach to the assessment and management of all noise matters in the NT.
- Finalising the NT Air Quality Management Framework Guideline to provide a coherent one stop shop to industry and the public on how the NT regulates air matters including air pollution.

### Ongoing

- Continue to focus on training in environmental impact assessment to meet the NT EPA's requirement to deliver high quality and timely environmental assessments.
- ✳ Continue to administer five-year funding agreements with the Arid Lands Environment Centre, Environment Centre Northern Territory, the Environmental Defenders Office, the Australian Marine Conservation Society and LGANT.
- Continue to work with Territory and Commonwealth government agencies, stakeholders and communities to ensure environmental issues associated with PFAS are identified, assessed and appropriately mitigated in accordance with accepted best practices and relevant legislation.

### Future priorities

- Deliver the final report from the review of the operations of the Northern Territory container deposit scheme consistent with the requirements of the *Environment Protection (Beverage Containers and Plastic Bags) Act*.
- Amend the *Northern Territory Environment Protection Authority Act* to meet commitments following the *Final Report of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory*.
- Amend the *Nuclear Waste Transport, Storage and Disposal (Prohibition) Act 2004* to clarify the application of the Act to the NT's offshore oil and gas industry.
- Develop a Hazardous Waste Management Policy for the Northern Territory.

## OLIVE PINK BOTANIC GARDENS - LHERE MPARNTWE (TODD RIVER) RIVER RED GUM FIRE PREVENTION AND VEGETATION RESTORATION

\$19 765 was provided to Olive Pink Botanical Gardens to work with volunteers and local Aboriginal youth to restore a high-use section of the Todd River. 11 community events will be held during the life of the project where weeds and rubbish will be removed and native vegetation planted, to reduce fire hazards and restore the areas natural biodiversity.

These actions will also help ensure the survival of the area's iconic Red River Gums. This project engages all sectors of the community to ensure a culturally appropriate, community driven project that will increase public amenity and protect the local ecosystem.

## ROPER GULF REGIONAL COUNCIL - CAN CRUSHER FOR MATARANKA REGIONAL RECYCLING CENTRE

\$30 000 was provided to Roper Gulf Regional Council to help finance a can crusher/bailer for the Mataranka Recycling Centre. The equipment will enable the recycling centre to reduce the volume of materials collected by more than 90 percent. This means the recycling centre will be able to store collected material until it is economically viable to transport them to a processing centre. The project extends the reach of the Container Deposit Scheme to a remote area and acts as a model for other remote areas.



## Corporate and Governance

Provides executive leadership and management to the agency.

This output is responsible for providing a wide range of corporate services to the agency.

Services are provided from Darwin.

### Performance Achievements in 2017-18

#### Completed

- Raised the profile of the department's strategic and divisional risk registers. Registers have been published on the department's intranet site and a risk workshop was facilitated in August 2017, attended by members of the Governance Board.
- Developed and embedded a new performance and development process which is valued by employees known as the Building Our Own Staff Talent (BOOST).
- Organised the Senior Leaders Forum over two days in March 2018, bringing leaders of the department together to foster collaborative networks and build strategic knowledge.
- Undertaking of regular corporate training for departmental staff, topics delivered were corporate credit cards, procurement, training policy, and grant agreement.

#### In progress

- Develop a departmental fraud and corruption control policy and associated procedures in line with whole of government requirements.
- Work with Department of Corporate and Information Services (DCIS) and within the department to deliver the NTG open data policy outcomes.
- Support delivery of departmental online system requirements such as portals.
- Deliver the replacement of the business application servers in three locations to meet operational and data storage needs of the department.
- Promotion of business planning across the department and quarterly reporting program.

#### Ongoing

- Quarterly reporting to the Governance Board on human resources, finance, corporate communications and media, information technology and records management and governance.
- Reporting on department commitments and progress against the people matters action plan.
- Encourage the sharing of information and strengthening interdepartmental relationships.
- Conduct bi-monthly Business Managers meetings to encourage sharing of information, collaboration and strengthen relationships across the department's divisions.
- Promote and participate in whole of government project and forums where appropriate to raise the profile and needs department; for example whole of Government Open data and Grants NT.
- Provide ongoing and operational support/ solutions across the department's information technology projects (such as Bushfire Emergency Management Systems (BEMS) portals).
- Support the whole of government 'Transforming the Government Records System (TRS)' Program.
- Investigate ways to improve training offerings for regional staff.
- Ensure managers are skilled in managing workplace incidents by upskilling managers in early intervention and workers' compensation processes.
- Launch of the Go the Extra Mile (GEM) program as the revamped staff recognition program to celebrate employees that go above and beyond in their roles.



### Future priorities

- Define the 2018-19 internal audit program based on whole of Government audit requirements and high risk events identified on the department's 2018-19 strategic risk register.
- Re-develop the department ICT strategic plan.
- Develop a departmental data strategy that identifies both short term and long term needs for data security and operational outcome needs.
- Increase awareness across the department of ICT Governance committee's role, governance and requirements for ICT projects.
- Develop a manager training framework to build competencies into each managers core responsibilities.
- Development of further modules of the BOOST program; BOOST ME structured support, BOOST UP – succession, BOOST away transition to retirement and knowledge transfer.
- Development and launch of a mandated training policy that incorporate appropriate workforce behaviours; code of conduct; cross cultural competence and corporate induction. This also includes face to face and online delivery and tools.

### Grant programs

The department provides one-off special purpose grants. The grants are distributed under an agreement which outlines the purpose of each grant, and the reporting process for confirming that the funded objective has been achieved.

A full list of the grants administered by the department is detailed in Appendix 3.

### Partnerships

Some grants are paid to recipients where a partnership, or collaborative arrangement, is in place to meet the requirements of a larger project.

Recipient	Purpose	Amount
GeoScience Australia	Study to determine the economic and environmental viability of the Ord Stage 3 Irrigation Scheme, which will construct irrigation channels from the Ord Irrigation Scheme into the Northern Territory.	\$663 193
Jacob's Group Australia	Managed Aquifer Recharge study to assess scope to convert excess water flows of the wet season to supply or augment irrigation projects in the dry season.	\$450 180
Queensland Department of Science Information Technology and Innovation	A collaborative research project between the Northern Territory Government and the Queensland DSITIA to provide an integrated system that will inform both governments and land managers on the condition of Northern Territory Rangelands	\$100 000

### Sponsorship and scholarships

The department continues to provide support through sponsorship and scholarships for a range of community engagement events during 2017-18:

- NT Cattlemen's Association Conference - \$10 000
- NT Farmers Association Incorporated – Northern Australia Food Futures - \$10 000
- Charles Darwin University - North Australian Savanna Fire and Carbon Forum - \$9 090
- Territory Natural Resource Management Conference - \$4 000
- Conoco Phillips Science Experience - \$1 090
- Charles Darwin University - Outstanding Academic Achievement - \$250
- Charles Darwin University - Barbara Singer Scholarship 2017 - \$3 000
- Charles Darwin University - Barbara Singer Scholarship 2018 - \$3 000

## Communications and Community Engagement

The department undertook a range of community engagement activities during 2017-18.

These included:

- Sponsoring the 2017 Territory Natural Resource Management Conference and awards held in Darwin, November 2017.
- Promoting the department's key activities and responsibilities to the community by participating in the Freds Pass Rural Show and attending the annual Northern Territory regional show circuit in Alice Springs, Tennant Creek and Katherine during July. The 2017 show circuit display received great feedback with fantastic support from our regions helping the department to take away the award for Best Government display in Tennant Creek and Katherine.
- Sponsoring the 2018 Northern Territory Cattlemen Association Conference in Alice Springs.
- Hosting the first inaugural Women in Water symposium at the Museum and Art Gallery NT in March 2018. The symposium showcased the diverse and impressive body of work being undertaken by some of the Territory's very best water scientists, who also happen to be women. Topics ranged from rural groundwater use, spring protection and rehabilitation, groundwater dependent ecosystems, flood mitigation and legacy mine rehabilitation.
- Attending the annual Amateur Fishermen's Association of the NT AGM in April 2018. Over 50 people attended the meeting, where the Weeds Management Branch spoke to recreational anglers about preventing weeds from spreading, such as Cabomba and encouraging them to report weed sightings when and where they occur.
- In August 2017, the Water Resources Division joined the Living Water Smart and Power and Water team to visit primary schools in the Anula, Karama, Manunda and Girraween area. Over 365 children attended and learnt about the importance of groundwater and its contribution to Darwin's water supply, water conservation and why it's an issue for Darwin and its rural area.
- Working with the Larrakia Rangers to share knowledge about groundwater monitoring and how to measure water table levels in the Darwin Rural area.
- Presenting at the Barkly Regional Resources and Economic Development Conference held in Tennant Creek, October 2017.
- Administering the Gamba Action Program for the eighth consecutive year. The department supports community to manage gamba grass and provides free gamba herbicide and equipment loans to help private landholders comply with legislation, reduce fuel loads and limit further spread of gamba grass. The program provided over 20 000 litres of free herbicide to 2 300 individual landholders across the Top End and Katherine regions.
- Working in partnership with the Territory Natural Resources Management to supply free herbicide to local Katherine residences during November to December 2017. Over 3 359 individual landholders participate in the program.
- Promoting weed management at the annual Darwin Boat, Travel and Leisure Show in Darwin during August 2017. A total of 245 people visited the display to find out more information on Cabomba and Salvinia in the Corroboree and Hardy's lagoon area.
- Weeds officers working with the Jawoyn Rangers to complete an aerial survey over 5 300 squared kilometres of land between Pine Creek and Katherine to obtain an understanding of the extent of gamba grass. The last aerial survey was undertaken in 2011.