our achievements
**Income**

In 2018-19, the department received income of $64.2m against a final budget of $64m. Income received is represented by:

- $51.6m in Northern Territory Parliamentary appropriation being the main source of income
- Other goods and services revenue, which includes works performed by the department’s divisions for third parties:
  - $1.3m Water Resources
  - $1m Bushfires NT
  - $0.1m Flora and Fauna
- $0.1m cost recoveries from other Northern Territory Government agencies
- $6m grants and appropriation received from the Australian Government and other external parties
- $3.7m notional revenue for corporate services provided by the Department of Corporate Information Services
- $0.4m in other revenue

**Expenditure**

In 2018-19, the department’s expenditure totalled $66.9m against a budget of $65m. Expenditure is represented by:

- $36.7m or 55% of total expenditure, on employee expenditure
- $15.5m or 23% of total expenditure, on goods and services expenditure
- $8m or 12% of total expenditure, on grants and subsidies payments. Includes $3.7m for Aboriginal Rangers, $1.4m for the West Arnhem Fire Management Agreement, $1.02m various environmental grants, $0.9m to support Volunteer Bushfire Brigades, and $0.7m Geoscience Australia Ord Stage 3 Assessment.
- $5.8m or 9% of total expenditure, on non-cash expenses. Includes $2.1m for depreciation charged on the department’s asset portfolio and the matching $3.7m for notional expenses charged by the Department of Corporate Information Services.
- $0.8m or 1% of total expenditure, on repairs and maintenance of assets. Includes $0.6m on the Mary River Saltwater Intrusion Program.
Legislative changes in 2018-19

Overview

The department has undertaken significant legislative reform during 2018-19. Reform has been a focus for a number of the divisions, specifically Water Resources, Rangelands, Environment and Onshore Gas Reform unit.

This work has resulted in the introduction and or debate of 7 Bills and making of further Regulations. The department presented evidence at public briefings and hearings, held by the Social or Economic Policy Scrutiny Committee on 6 occasions. A summary of the legislative reform undertaken throughout the year is detailed below.

Petroleum Act 1984

Environmental regulation of onshore petroleum activities

Commenced 27 February 2019

The Final Report of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory Report (HFI Report). Recommended a clear separation between the agency with responsibility for regulating the environmental impacts and risks associated with any onshore shale gas industry, and the agency responsible for promoting that industry. This was delivered through amendments to the Administrative Arrangements Order transferring the responsibility for environmental regulation of petroleum activities under the Petroleum Act 1984 and the Petroleum (Environment) Regulations 2016, to the Minister for Environment and Natural Resources.

The department has implemented a new regulatory model to deliver these requirements that includes the Minister seeking advice from the NT EPA when making a decision on an Environment Management Plan (EMP) and seeking and considering public comments on EMPs for well drilling and/or hydraulic fracturing activities.

Petroleum (Environment) Regulations 2019 (No. 7 of 2019)

Commenced 11 June 2019

The Regulations gave effect to enforcement of the Code of Practice: Onshore Petroleum Activities in the Northern Territory (the Code) which details the minimum standards and requirements that onshore petroleum companies must abide by when undertaking activities. These activities include surface activities, well operations and well site water management, as well as methane emissions monitoring, leak management detection and reporting. The Code meets a number of the recommendations of the HFI Report.

The Regulations provide:

- a requirement that an EMP submitted for approval must detail how the interest holder plans to adhere to the Code, and enforcement and penalty provisions for the failure to adhere to the Code
- a requirement for the interest holder to provide evidence of an Authority Certificate from the Aboriginal Areas Protection Authority (AAPA) as provided for by the Northern Territory Aboriginal Sacred Sites Act 1989 (a Certificate) and that the Minister is prevented from approving an EMP unless evidence of a Certificate is provided
- transitional provisions
Nuclear Waste Transport, Storage and Disposal (Prohibition) Act 2004

Nuclear Waste Transport, Storage and Disposal (Prohibition) Amendment Bill 2018
Commenced 28 February 2019
The Nuclear Waste Transport, Storage and Disposal (Prohibition) Act 2004 provides a regulatory framework which prohibits the transport into the Territory, and the storage and disposal in the Territory, of certain nuclear wastes.
The Amendment Bill provided clarity and certainty to the offshore oil and gas industry about the application of the Act to nuclear waste, including Naturally Occurring Radioactive Materials (NORMs) that may be generated from offshore oil and gas activities and subsequently brought into the Territory.

Nuclear Waste Transport, Storage and Disposal (Prohibition) Regulations 2019
Commenced 13 May 2019
The Regulations supported the amendments to the Act, prescribing projects which would be exempt from the Act and how projects could be considered prescribed projects, providing further certainty for industry.

Water Act 1992

Water Legislation Amendment Bill 2018
Commenced 31 December 2018
The Water Legislation Amendment Bill 2018 introduced amendments to ensure the Water Act 1992 applied to water taken by, and associated with, mining and petroleum activities in the same way as it applies to all other water users. It also updated offences and penalties for compliance with Part IIAA of the Criminal Code and alignment with national water industry best practice.
These amendments supported recommendation 7.1 of the HFI Report, which required the unconventional shale gas industry to have water extraction licences in place for hydraulic fracturing activities.

Water Amendment Bill 2019
Commenced 19 June 2019
Further amendments to the Water Act 1992 through the Water Amendment Bill 2019 introduced provisions to prohibit:
- surface water take for petroleum activities
- water extraction for hydraulic fracturing within 1km of a land owner’s bore without agreement or hydrogeological information
- reinjection of hydraulic fracturing wastewater into aquifers
- release of hydraulic fracturing wastewater to surface waters
These amendments supported recommendations 7.6, 7.8 (a), 7.9 and 7.17 of the HFI Report. These amendments improve the protection of water resources through strengthening decision making and regulatory arrangements.

Water Legislation Miscellaneous Amendments Bill 2019
The Water Legislation Miscellaneous Amendments Bill 2019 was introduced into the Legislative Assembly in March 2019 providing for amendments to the Water Act 1992 and Water Regulations 1992. It addressed technical irregularities and administrative inefficiencies identified in administration of the water legislation.
The Bill was referred to the Economic Policy Scrutiny Committee for inquiry. The Committee tabled its report in June 2019. As at 30 June 2019 the Northern Territory Government was considering the recommendations in the report.
Pastoral Land Act 1992

Pastoral Land Legislation Amendment Bill 2017
Commenced 26 September 2018
Pastoral Land Legislation Amendment Bill 2017 made administrative amendments to the Pastoral Land Act 1992 and Pastoral Land Regulations 1992 to enhance the effectiveness of the legislation, specifically the Bill:

- implemented a new methodology to set pastoral lease rents based on the capacity of the lease to support livestock (using estimated carrying capacity)
- refined consent to transfer provisions to capture a transfer of a pastoral lease by way of share transfers
- rectified an anomaly regarding the penalty for late payment of pastoral rent
- aligned payment periods for pastoral lease rents with existing government policy
- allowed for an increase in the number of members on the Pastoral Land Board

Pastoral Land Amendment Regulations 2018
Commenced 12 December 2018
A new Regulation 32 was made to limit the power of the Minister to issue a sublease for a non-pastoral use permit.
Northern Territory Environment Protection Authority Act 2012

Northern Territory Environment Protection Authority Amendment Bill 2018

Commenced 30 November 2018

The Northern Territory Environment Protection Authority Bill 2018 introduced amendments to:

- improve the NT EPA’s governance and accountability, including a requirement for the NT EPA to prepare a ‘statement of intent’
- improve the flexibility and responsiveness of the membership of the NT EPA to ensure that the membership can adapt and respond to changes in the development focus of the Territory
- establish a new power for the NT EPA to review and report on the operation of the Territory’s system of environmental management as a whole, making the NT EPA the Territory’s ‘environmental assurance monitor’
- allow for any Minister to request advice from the NT EPA in relation to specific proposals, plans, programs or other measures to manage the environmental impacts of development, enabling the NT EPA to provide advice on environmental management plans for hydraulic fracturing activities

Environment Protection Bill 2019

The Environment Protection Bill 2019 (the Bill) was introduced into the Legislative Assembly in May 2019 to establish an Act to protect the environment of the Northern Territory. It also aims to promote sustainable development by establishing a contemporary environmental impact assessment and approval system, based on best practice principles.

The Bill:

- establishes a new environmental impact assessment process for proposed actions that have the potential for a significant impact on the environment
- introduces a new environmental approval system requiring an environmental approval issued by the Minister for Environment and Natural Resources
- establishes clear pathways for proposed activities to enter the environmental impact assessment process
- increases transparency and public scrutiny on decision making and promotes early engagement with potentially affected communities to ensure social licence for development
- introduces judicial review of decisions made by the NT EPA and by the Minister for Environment and Natural Resources in relation to environmental approvals
- provides enforcement and compliance tools and clearly articulates offences

The Bill was referred to the Social Policy Scrutiny Committee for examination. The Committee is due to table its report in September 2019.
Future Legislative amendments

Water Act 1992

Further amendments to the Act and consequential amendments to other legislation will also be progressed. This will progress a solution to the current impasse preventing subdivision in areas with fully or over allocated groundwater systems including allowing the use of rainwater tanks.

Marine Pollution Act 1999 and Marine Pollution Regulations 2003
The intent of this legislation is to protect the Territory’s marine and coastal environment by minimising intentional and negligent discharges of ship-source pollutants into Territory coastal waters. Amendments are required to address identified deficiencies to ensure that the government is able to protect the Territory’s marine environment.

Pastoral Land Act 1992
Amendments to the Pastoral Land Act 1992 support the implementation of the government’s Non-Pastoral Use Policy and the Territory Right to Negotiate to increase procedural rights of native title holders in the issuing of permits for significant diversification activities.

Environment Protection Bill 2019
Passage of the Environment Protection Bill 2019 is expected to be finalised by the end of the 2019 with the new Act commencing late 2019. During 2019-20 the department will progress regulatory arrangements for managing the environmental impacts of mining.
Flora and Fauna

Provides scientific assessment and monitoring of the Territory’s native flora and fauna, and delivery of policy advice and support for 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 land owners to manage the threat to our unique flora and fauna
- supporting and managing the sustainable use of wildlife
- providing robust, evidence-based advice to government, industry and the community relating to the biodiversity of the Northern Territory

Services are provided from Darwin and Alice Springs.

Variance analysis actual vs original budget

- The number of biodiversity information requests met is lower than original budget by 10%, but the number of requests varies between years.
- The number of research programs also varies between years due to the timing of completion or commencement of externally funded projects.
- The number of management programs is less than the original budget as the draft Coastal and Marine Management Strategy was subject to approval as at 30 June 2019.
Variance analysis actual vs estimate

- The number of research programs is lower than the estimate by 1, as biodiversity monitoring in the West MacDonnell Ranges National Park was postponed due to severe fires that affected many of the sites.

Performance achievements in 2018-19

**Completed**

- Developed a draft Northern Territory Coastal and Marine Management Strategy, through a consultative process with government, industry, science, environment and community stakeholders. ① ② ③
- Completed a major project (funded through the Ichthys Project Voluntary Offsets Agreement), to map the marine habitats in Darwin and Bynoe Harbours. ①
- Published 2 accounts of Aboriginal biocultural knowledge of flora and fauna, for the Ngandi and Ngalakgan country in the Rose, Wilton Roper and Phelp rivers area and Jingulu and Mudburra country in the vicinity of Elliott, Beetaloo and Murrani. ①
- Completed a project (with funding from the Australian Department of Agriculture and Water Resources) to trial a technique to control foxes that does not harm dogs or dingoes. ①
- Completed literature reviews, field work and land owner consultation around the approaches to, and effectiveness of, wild dog management in the Northern Territory. ①
- Completed the annual aerial survey of magpie goose population and nesting rate to inform the recommendation to the Minister for Environment and Natural Resources on conditions for the annual hunting season. ① ②
- Undertook the annual survey of the saltwater crocodile population in the Top End’s major rivers, to inform sustainability of the wild harvest. ① ② ③
- Developed a threatened species management plan for Groote Eylandt, in conjunction with Anindilyakwa Land Council and South32 (GEMCO), to guide the implementation of environmental offset projects associated with the development of South32’s eastern leases. ① ② ③ ④ ⑤
- Delivered the second round of the Aboriginal Ranger Grants Program, including $1.9m of capital grants to 19 ranger groups and $1.8m of Land Management and Conservation Fund grants to 8 new projects ($0.5m) and 21 ongoing projects from round 1 ($1.4m). ① ② ③ ④ ⑤
- Completed and published results from studies on the effects of predators (feral cats and dingoes) on native wildlife, including through fencing sites to exclude predators in Kakadu National Park and dietary studies from analysing stomach and scat contents. ①

**Thinking outside the fox**

Lauren Young, Flora and Fauna scientist

Foxes are one of most serious pest animals in the more arid parts of the Northern Territory, where they are a major factor in the extinction and decline of many native mammal species.

Foxes can be controlled with poison baits but this method isn’t suitable for some areas because the baits might also kill native animals like perenties and dingoes. Dingoes are protected in the Territory, have an important ecological role as an apex predator and are of cultural significance to many Aboriginal groups.

To address this problem, staff from the Flora and Fauna division have been trialling a baiting device called the Canid Pest Ejector, which was modified to only be triggered by foxes and to exclude all other non-target species. Numerous bait devices (without poison) were set up in Watarrka National Park and Owen Springs Reserve, and monitored using motion-sensing cameras.

The trial was very successful and the team collected an extraordinary set of photos of a range of birds, reptiles and mammals (including dingoes) investigating the bait stations, but only foxes triggered the specially modified ones.

A lot of useful data about the abundance and movement patterns of foxes and feral cats (another serious pest) were also collected.

The baiting technology that was successfully tested can be readily deployed in national parks and Aboriginal areas to manage foxes and protect threatened species, without harming dingoes. It may also be useful where land owners are concerned about the risk to domestic dogs from poison baits.
In progress

- Implementation of biodiversity assessment as part of Mapping the Future.
- Monitoring dolphin populations in Darwin Harbour and adjacent coastal waters and monitor dugong populations around the Territory coastline (as part of the Ichthys Project Voluntary Offsets Agreement).
- Reviewing the conservation status of plant and animal species listed as threatened under the Territory Parks and Wildlife Conservation Act 1976.
- Working alongside Aboriginal elders and communities to document and preserve their biocultural knowledge, with work focusing on the Roper/Gulf region.
- Revising the management plan for Magpie Goose to incorporate new and collated scientific data to provide more certainty to hunters about future season conditions and support growing interest in commercial harvest.
- Rolling out the Aboriginal Ranger Grant Program, including a call for applications for the third round 2019-20 of Land Management and Conservation Fund grants.
- Continuing the trial of the effectiveness of baiting feral cats to protect populations of the critically endangered Central Rock-rat in the MacDonnell Ranges.
- Partnering with Charles Darwin University, with funding from the National Environmental Science Program (NESP) to investigate the use of environmental DNA (eDNA) to detect and monitor wildlife, including terrestrial species that shed their DNA into water bodies.
- Continuing projects, in collaboration with researchers in the Northern Australian and Threatened Species Hubs of NESP, to clarify the factors causing small mammal decline, and the management actions to address these.
- Continuing to work with Traditional Owners, Aboriginal rangers and pastoral managers to restore important Central Australian waterholes for ecological and cultural outcomes.
- Continuing work on reducing impacts from feral animals, stock and weeds on Running Waters waterholes in Central Australia.

New weed identified in Australia

An unidentified weedy plant was spotted near Jabiru and had local weed managers perplexed as they had never seen anything like it before, they sent a specimen to the Northern Territory (NT) Herbarium for identification.

At first, the botanists there were stumped but some careful botanical detective work led our Chief Botanist, Ian Cowie, to identify it as the first Australian record of the highly toxic West Indian Pink (Spigelia anthelmia).

This species is native to South and Central America from Brazil and Peru to as far north as Mexico. It’s a weed spread throughout the world’s tropics. This herb is highly toxic to people and stock, causing dizziness, delirium, dilation of the pupils, vomiting and convulsions, sometimes leading to death. It’s even been used in criminal poisonings overseas. It is not a good addition to the Australian flora, for many reasons.

It is likely that the seed of the plant has been introduced accidentally with prefabricated building products imported from south-east Asia, possibly the Philippines.

Prompt identification led to the swift commencement of action to eradicate this weed.

It is only through the extensive plant collection at the NT Herbarium and the botanical expertise of our scientists that the identity of such potentially devastating weeds can be rapidly determined or confirmed.
Playing tag with dugongs in the Gulf of Carpentaria is no easy task but Flora and Fauna Division scientists worked with the li-Anthawirriyarra Rangers, Northern Territory Parks and Wildlife, and Murdoch University to skillfully wrangle ten dugongs.

We had eyes in the air (chopper and drone) and 3 boats in the water to locate the dugongs once spotted. They were ‘rodeoed’ and gently held against the side of the boat, where satellite tags were fitted before they were released.

Dugongs are an iconic marine mammal and of enormous importance to coastal Aboriginal people for food and cultural reasons. The Gulf of Carpentaria is the most significant dugong habitat in the Territory, with about 60% of the Northern Territory’s dugong population. Researchers in Queensland, Western Australia and the Territory monitor Australia’s dugong population by counting them from the air. The problem in the Gulf is that the water is often turbid and an unknown number of dugong are not visible during aerial surveys because they are swimming or feeding close to the sea floor.

Not only do the satellite tags broadcast the location of the dugongs, they also record the time and depth of their dives. This information will tell us a lot more about movement patterns and how dugongs use their environment. It will also allow us to calculate accurate correction factors for the aerial surveys. If this shows the NT dugong population size to be significantly underestimated, it will confirm that the Gulf is an internationally important stronghold for the species, an asset worth careful management.

The project is funded by the INPEX-operated Ichthys Project. A video showcasing the project has been produced in collaboration with the li-Anthawirriyarra Sea Ranger Unit.
Rangelands

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

This output is responsible for:

- assessing and monitoring the Territory’s land resources
- assisting landholders in managing the threat and impact of weeds

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

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<tbody>
<tr>
<td>Percentage of pastoral estate monitored in the year</td>
<td>27%</td>
<td>20%</td>
<td>20%</td>
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<td>Land clearing applications assessed</td>
<td>11</td>
<td>11</td>
<td>12</td>
<td>18</td>
<td>12</td>
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<td>Area of land receiving weed extension services (000 km²)</td>
<td>205</td>
<td>250</td>
<td>200</td>
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<td>Land development proposals assessed</td>
<td>677</td>
<td>600</td>
<td>580</td>
<td>618</td>
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<tr>
<td>Soil profile sites described and tested</td>
<td>610</td>
<td>375</td>
<td>425</td>
<td>390</td>
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Variance analysis actual vs original budget

- Actual land clearing applications assessed, which are dependent on applications submitted, were 7 higher than original budget.
- The 20% decrease in land area receiving weed extension services was due to reprioritisation of resources for a rapid weed response in the Gulf pastoral district.
- Land development proposals assessed are dependent on applications submitted.
- An increase of 4% in soil profiles testing resulted in a higher number of sites tested than originally budgeted.

Variance analysis actual vs estimate

- Land clearing applications and land development proposals are difficult to estimate and variances are common due to limitations in predicting the demand and were 50% higher than the estimate.
- Soil profile sites tested actuals were less than estimate due to unexpected access issues.

Understanding gamba grass in the Katherine region

The department collaborated with the Edith Farms Volunteer Bushfire Brigade on a gamba information day at the Charles Darwin University campus in Katherine.

It was the first time such an event was held in Katherine, with over 50 participants.

Edith Farms Volunteer Bushfire Brigade, with support from the Weeds Management Branch and Bushfires NT, played an important role sharing knowledge about managing gamba grass. The event increased awareness among local landholders about the spread and impact of gamba grass.

Presentations were delivered by a strong panel of experts to help people understand the threat of gamba grass in the Katherine region.

Participants also had the opportunity to take a helicopter flight, funded by an Environment Project Grant, to see exactly where gamba grass was located in the region, and especially on their individual properties.

For more information on gamba grass management visit www.nt.gov.au/gamba
Performance achievements in 2018-19

Completed

- Amendments to the Pastoral Land Act 1992 and Regulations were finalised to improve the administration of the Act and to introduce a new methodology to set pastoral lease rents.
- Published 2 soil and land suitability reports and mapping for the Larrimah township south of Katherine and the Beswick (Wugularr) community.
- Published land resource mapping for Auvergne Station in the northern Victoria River District.
- Updated land use mapping across the Northern Territory providing a contemporary assessment of how the Territory’s land resource is being utilised.
- Worked with INPEX to publish mangrove mapping in the Darwin region to support a mangrove monitoring project under the Ichthys Project Voluntary Offsets Agreement (IPVOA).
- Worked with INPEX to publish a report for the development of a long-term mangrove monitoring program for Darwin Harbour under the IPVOA.
- Completed external peer review of the cabomba Eradication Program and declaration of eradication, and lifting of the quarantine area of the upper section of the Darwin River.
- Completed the third treatment of the quarantine area at Lok Landji Billabong for cabomba (Cabomba caroliniana) in Darwin River in 2018.
- Revised the statutory weed management plans for gamba grass (Andropogon gayanus), bellyache bush (Jatropha gossypiifolia) and mimosa (Mimosa pigra).
- Assessed 9 applications to clear native vegetation on unzoned land lodged under the Planning Act 1999.
- Assessed 9 applications to clear native vegetation lodged under the Pastoral Land Act 1992, including applications to vary existing permits.
- All approved pastoral land clearing permits now publicly available on NR Maps.
- Assessed 5 non-pastoral use permits that were lodged under the Pastoral Land Act 1992 for purposes including horticulture, agriculture and tourism.
- Carried out rangeland monitoring activities across 49 pastoral leases.
- Amalgamated two historical stock routes into adjoining pastoral stations.
- Assessed and approved 5 subleases under the Pastoral Land Act 1992 for various purposes including gas infrastructure and aquaculture.
- Provided written advice on 618 development proposals for Northern Territory Government agencies and authorities, and private entities.
- Delivered $600,000 of repairs and maintenance works to engineer 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.
- Reviewed the technical assessment component of the Planning Act 1999 Land Clearing Guidelines to provide more detailed guidance to applicants on environmental risk and considerations.
- Supported the Pastoral Land Board to consider 7 applications for conversion from term to perpetual pastoral lease and 1 development plan.
- Appointed a sixth member to the Pastoral Land Board to extend the board's capacity and expertise on matters relating to native title and Aboriginal cultural heritage.
Territory’s biological control on mimosa weed

The Northern Territory Weed Management Branch has been working on a biological program to control mimosa (Mimosa pigra) weed with the Centre for Agriculture and Bioscience International in Kenya and the Department of Agriculture and Fisheries in Queensland.

The carmenta moth has shown to be a promising biological control agent. The larvae of the carmenta moth (Carmenta mimosa) bore into the weed’s stem causing it to weaken and eventually die.

As a result of the department’s successful work in biosecurity, our mimosa biological control has now been mirrored in Africa.

More than 200 larvae of the carmenta moth were successfully harvested in Darwin and flown to Zambia. The carmenta were imported under permit and removed from the stems in quarantine.

The live individuals were released into the wild in Zambia which involved drilling holes into the stems of the local mimosa infestation, and inserting live larvae (caterpillars) and pupae (cocoons) directly into the stems.

For more information on mimosa visit www.nt.gov.au/mimosa

In progress

- Soil and land suitability mapping in the Katherine region. 1 2
- Finalisation of soil and land suitability mapping for East Arnhem, western Barkly, Keep River Plain and Dunmarra. 1 2
- Trialling digital soil mapping to report on soil and land suitability in the Flying Fox Station study area in the Roper River catchment. 1 2
- Under Mapping the Future remnant vegetation mapping and collation of soil and land suitability data in the Gunn Point area. 1 2
- Working on the implementation of the statutory weed management plan for athel pine (Tamarix aphylla). This 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. 1 2 3
- Vegetation mapping of Limmen National Park. 1 2
- Revision of the statutory weed management plans for neem (Azadirachta indica), mesquite (Prosopis spp), prickly acacia (Acacia nilotica) and chinee apple (Ziziphus mauritiana). 1 2 5
- In collaboration with INPEX, refine mangrove mapping in Darwin Harbour to support a mangrove monitoring pilot project as part of its commitments under the Ichthys Project Voluntary Offsets Agreement (IPVOA). 1 2
- Revision of the regional weed management plans for Darwin, Katherine and Alice Springs. 1 2 5
- Undertaking trials into the use of the granular herbicide Tebuthiuron for the control of rubber bush (Calotropis procera) in the Alice Springs and Tennant Creek region. 5
- Undertaking trials into the use of soil active residual products for the control of gamba grass (Andropogon gayanus) around Darwin, as well as aerial trials in the Coomalie region. 5
Ongoing

- Continuing the prickly pear (Opuntia spp.) “Bin it, don’t spread it” campaign for cacti control in Central Australia.
- Working towards the eradication of prickly acacia from the Barkly Tablelands through assisting landholders with strategic control works, remote sensing, and cost benefit decisions.
- Applying treatment, for the fourth time, of the quarantine area of Lok Landji Billabong for cabomba in Darwin River scheduled for September 2019.
- Continuing to deliver the Gamba Action Program, including implementation of the gamba grass compliance program in the Darwin and Katherine regions.
- Continuing sagittaria (Sagittaria platyphylla) detection and eradication measures.
- Continuing emergency rapid responses to incursions of parthenium weed (Parthenium hysterophorus), rubber vine (Cryptostegia grandiflora) and spigelia (Spigelia anthelmia) under the National Emergency Biosecurity Response Agreement (NEBRA).

Future priorities

- As part of Mapping the Future, undertake land resource mapping in the Katherine municipality and remnant vegetation mapping in the Gunn Point area.
- Continue to implement and develop long term mangrove health remote sensing monitoring programs in the Darwin Harbour region.
- Develop remote sensing capacity for the recognition of ‘old growth’ vegetation communities across the Northern Territory.
- Develop a draft framework and associated policy for compliance with the Pastoral Land Act 1992 for consideration by the Pastoral Land Board.
- Support the Pastoral Land Board to develop and trial a new process for recovery planning which will be collaboratively developed with pastoral lessees who have legacy issues or declining land condition. Recovery Planning will build upon, then replace former requirements for Voluntary Management Plans.

Promoting the Territory through Mapping the Future

Mapping the Future will support land planning, reduce investment decision risk and encourage the private sector to do business in the Territory.

The program is a 5 year, $10m Northern Territory Government initiative which will assess natural resource development potential in strategic locations in the Territory. The program is in its third year.

The program will produce survey maps and reports on land capability, water availability and environmental conservation zones, highlighting locations suitable for development.

Several projects are underway in the Gunn Point, Wadeye, Katherine and Western Davenport regions.

- Wadeye: surveys have identified 5000ha of land and a water supply capable of supporting irrigated cropping options.
- Gunn Point: studies will identify productive soils capable of supporting irrigated and dry land agriculture, sustainable groundwater yield and the location of significant habitat.
- Western Davenport: vegetation and groundwater studies will improve knowledge of groundwater dependent ecosystems critical for water licensing and groundwater management decisions. This will facilitate development while protecting the Territory’s most valuable resource.

Further planning and consultation is underway for surveys and assessments, focusing on the Roper Valley, Gulf Fall (Borroloola area), Larrimah and Greater Alice Springs regions.

For more information on the program visit www.dnr.nt.gov.au/mappingthefuture
Water Resources

Scientific monitoring, assessment, allocation, licensing and regulation for sustainable use of the Territory’s water resources, and the delivery of flood forecasting services for infrastructure protection and community safety. 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 while also supporting development
- water licensing and regulatory activities in compliance with the Water Act 1992 and Regulations
- natural resource mapping and spatial data information services

Services are provided from Darwin, Katherine and Alice Springs.

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<tr>
<td>Water allocation plans in effect</td>
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<td>7</td>
<td>5</td>
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<td>Technical and scientific reports completed and publicly available</td>
<td>5</td>
<td>10</td>
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<tr>
<td>Flood warning stations providing alerts to relevant authorities</td>
<td>63</td>
<td>66</td>
<td>66</td>
<td>70</td>
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<tr>
<td>Water extraction licences granted</td>
<td>70</td>
<td>190</td>
<td>277</td>
<td>269</td>
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<tr>
<td>Bore construction permits issued</td>
<td>198</td>
<td>145</td>
<td>185</td>
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<td>Onsite compliance inspections completed</td>
<td>453</td>
<td>470</td>
<td>1,044</td>
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</table>

Variance analysis actual vs original budget

- The lower number of water allocation plans in effect is due to the public consultation process for 2 water allocation plans not being finalised by 30 June 2019 and 1 water allocation plan being incomplete.

- The higher actual 22 than a budgeted 10 scientific and technical reports released reflects increased activity in this area.

- The increase of 4 flood warning stations was due to adding flood warning functions to existing water monitoring sites.

- The increase of water extraction licences granted by 42% against budget reflects the increase in Darwin Rural water licensing activities and engagement with new licence holders as a result of the removal of the 15 litre per second exemption from water licensing in the Darwin Rural Water Control District.

- The increase in bore construction permits granted by 44% above budget is due to the declaration of the Daly Roper Beetaloo Water Control District over a larger area than the previous water control district and the increase in the requirement for bore construction permits (now called bore work permits) over the area.

- The significantly higher number of onsite compliance inspections by 87% against budget is due to the increase in the number of bore and water licences subject to routine inspections.

Variance analysis actual vs estimate

- Reduction of 1 water allocation plan in effect is due to the public consultation process for 1 water allocation plan not being finalised by 30 June 2019.

- The 16% lower than actual estimate of onsite compliance inspections is due to water extraction licence inspections being prioritised over bore inspections, which require a relatively longer time to complete.
Performance achievements in 2018-19

Completed

- Established the Daly Roper Water Control District to include the Beetaloo Sub-basin as per recommendation 7.7 in the HFI Report including declaration of beneficial uses, water quality standards and exemptions for the new water control district.
- Established policies to ensure efficient administration of the legislation, specifically policies to address management of unused water, Darwin rural water licensing, and prioritising water extraction licence applications.
- Published detailed water assessment work undertaken by the department including a report on the Georgina Basin Groundwater Assessment - Daly Waters to Tennant Creek.
- Completed pesticide monitoring of groundwater in the Mataranka area.
- Completed Gove, Wadeye and Georgina Basin water resource assessments and reports.
- Undertook water quality and sediment studies for Darwin Harbour under the Ichthys Project Voluntary Offsets Agreement (IPVOA).
- Undertook assessment of anthropogenic pressure indicators for Darwin Harbour under the IPVOA.
- Undertook further studies to identify groundwater dependent ecosystems in the arid zone to inform water allocation planning.
- Continued the community engagement and information campaign on groundwater in the Darwin Rural area.
- Completed reports on the Northern Territory Irrigation Feasibility Study for Managed Aquifer Recharge project in selected sites.
- Finalised a study of the Rocky Hill area to determine the longer term impacts of irrigation on the groundwater system.
- Prepared mapping products to improve flood preparedness for Katherine (town and rural areas).
- Released a Water Regulatory Reform Directions Paper from October 2018 to end March 2019 for community input, to shape reform of the water regulatory framework.
- Finalised the 5 year review of the Western Davenport Water Allocation Plan resulting in declaration of a new plan for 2018-2021.

In 2018 the Aquatic Health Unit (AHU) in the Water Resources Division completed its annual dry season water quality sampling program in the Daly and Roper River catchments.

The dry season is an important time for Top End river ecosystems, when stable flow conditions and clear water allow aquatic plants and algae to grow. During this period, rivers are most vulnerable to potential impacts from groundwater extraction and groundwater pollution because surface flows are entirely sourced from groundwater discharged by aquifers.

The AHU collects baseline data on the health of our rivers and detects changes. Under the current program, 21 river sites and 6 springs in the 2 catchments are sampled annually for a large range of parameters, including water clarity, salinity, dissolved oxygen, nutrients and other chemicals.

Checking the health of our rivers

First results for 2018-19 have confirmed the dry season water quality of these rivers is wonderfully clear. Nutrient concentrations were mostly very low, and the ionic chemistry reflected the limestone groundwater sources for both rivers.

Samples were also collected for pesticides and other chemicals and have been sent interstate for analysis.
Help stop the drop #nonsoon2019

After the poor wet season, it’s important we all do our bit.

The recent wet season was one of the driest on record and aquifers in Darwin’s rural area have not been significantly recharged as a result. This has been a general trend across the Territory.

As part of it’s Help Stop the Drop campaign, the department has been working in partnership with the Power and Water Corporation (PWC), talking to both urban and rural residents about using less water.

The department using the hashtag #nonsoon2019 in social media and other information to remind people that we rely on wet season rain in the Top End for rural groundwater supplies.

While PWC has been talking to its urban customers, the Water Resources Division has been on the ground in the Darwin rural area talking to local bore owners about the impact low aquifer recharge might have on their bore levels in the dry season.

Using the department’s new online tool ‘Know your bore’ our water hydrogeologists have been talking to residents, using their property’s bore reports. We’ve been printing their bore reports for them, educating residents on which aquifer their bores are in, where the current and projected water levels are, and what they can do to reduce the risk of their bore running dry.

The department has visited local shopping centres and markets in the Humpty Doo, Berry Springs, Howard Springs and Coolalinga area. The team alternated between shopping centres and rural markets on weekends.

As part of the campaign, the PWC announced a two-third reduction in its take from the Howard Springs East and McMinn borefields for 2019.

For more information on Help Stop the Drop www.denr.nt.gov.au/helpstopthedrop

In progress

- Continuing 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. 1 2
- Working with the Rapid Creek Water Advisory Committee on a water management plan for the Rapid Creek catchment. 3 4
- Determining environmental flow requirements of the pig-nosed turtle in the Daly River, with partner organisations, as part of the National Environmental Science Program. 3
- Working collaboratively with rangers in the Roper River community to monitor river water quality. 3 4
- Contributing to the development and implementation of Mapping the Future, including undertaking water assessments in potential new development areas. 1 2
- Completing hydrogeological assessment of the Mereenie Aquifer System including rehabilitation of Roe Creek monitoring bores. 3
- Undertaking the Southern Stuart Corridor, Exploring for the Future Project in collaboration with Geoscience Australia. 3
- Complete drafting of the Ooloo Dolostone Aquifer, Ti Tree Aquifer, Katherine Tindall Limestone Aquifer, Mataranka Tindall Limestone Aquifer, Howard and Great Artesian Basin water allocation plans for key stakeholder and community consultation towards declaration of new water allocation plans. 2 4
- Constructing and commissioning new gauging stations on the Armstrong River and Wilton River to provide flood alerting for the Buntine and Central Arnhem Highways on behalf of the Northern Territory Department of Infrastructure, Planning and Logistics. 1 5
- Completing preparation of amendments to the Water Act 1992 to improve administrative efficiency and reflecting the Strategic Aboriginal Water Reserves Policy Framework. 3 4
- Working with partner agencies to deliver the recommendations in the HFI Report. 3
Crocs, tides and building a gauging station

A new river gauging station has been built on the Arnhem Highway Bridge in Adelaide River, after upgrades were completed by the Department of Infrastructure, Planning and Logistics (DIPL).

Funding for the new station was provided by the department, DIPL and the Bureau of Meteorology.

Building presented a few unique challenges for the Water Resources Division, including the local crocodiles trained to jump out of the water for food, the constantly changing river heights due to tidal activity and a very busy bridge with heavy vehicle traffic.

Site inspections were carried out to determine the best possible location for accurate and reliable data, given the challenges and limitations of the surrounding environment. Selecting the location was one of the most important aspects of building a new station.

Water Resource Division staff worked with contractors and DIPL over a 4 day period to construct and install hydrographic equipment.

The site is now up and running, collecting valuable river height information. In the wet season this station will play an important role in the flood warning services the Water Resources Division provides to transport authorities and emergency services.
**Bushfires NT**

Provides fire management support to rural stakeholders and volunteer bushfire brigades across the Territory, including fire management planning, training and mitigation, and suppression activities to ensure best fire management practices. Coordinate government support for the Aboriginal carbon industry.

This output is responsible for:

- supporting landholders in the management and mitigation of wildfire
- 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**

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<thead>
<tr>
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<tbody>
<tr>
<td>Permits to burn issued</td>
<td>-</td>
<td>1,280</td>
<td>926</td>
<td>1,347</td>
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<tr>
<td>Planned burns attended by Bushfires NT or authorised volunteers</td>
<td>-</td>
<td>354</td>
<td>320</td>
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<td>Formal fire management planning meetings with stakeholders</td>
<td>172</td>
<td>243</td>
<td>145</td>
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<td>Compliance inspections under the Bushfires Management Act 2016</td>
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<td>4,438</td>
<td>3,600</td>
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<tr>
<td>Number of stakeholders trained</td>
<td>318</td>
<td>300</td>
<td>320</td>
<td>241</td>
<td>400</td>
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<tr>
<td>Number of authorised bushfire volunteers and volunteer fire wardens</td>
<td>408</td>
<td>520</td>
<td>450</td>
<td>457</td>
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**Surveys highlight confidence in Bushfires NT volunteers**

Bushfires NT surveys aimed at improving volunteer programs and services to the community, revealed public confidence in brigades.

The feedback from a Bushfires NT volunteer survey showed that 90% of respondents were confident that their brigade can do its job. In a community survey 82% of the public believed the same.

Comments from the public were supportive and praised all volunteers for doing a great job, and they wouldn’t expect them to volunteer any more of their time as most of them have their own property and family to look after.

The survey found half of the brigade members frequently participated as a volunteer. This meant members volunteered their time up to 11 times per year. About 55% of volunteers are either working full-time, part-time or looking after their families.

The vast majority of the Bushfire NT members enjoy being a volunteer. A total of 87% of volunteers rated their experiences as a Bushfires NT volunteer as either good or very good, and almost everyone (99%) said volunteering was important to them.

The data collected from these surveys was used to guide discussions with volunteers and other stakeholders in the development of key priorities of the Bushfires NT Volunteer Strategy 2019-2022.

We thank our volunteers for the important work they do.
The Bushfire Emergency Management System (BEMS) is a web application that provides the platform for Bushfires NT and volunteer brigades to digitise permits, planned burns and fire incidents.

Prior to the launch of BEMS, volunteers and Bushfires NT staff recorded permits, planned burns and fire incidents manually in a paper-based format making it impossible to monitor in real time. The digitisation of these processes in a centralised system has improved transparency and situational awareness. It has created greater understanding of the work being undertaken across the network and the factors that impact on the decision making process during bushfire incidents.

The system will continue to make it easier and more efficient for volunteers to perform their role. BEMS has already improved the overall effectiveness of volunteer and Bushfires NT staff record keeping and has reduced duplication of work that previously occurred using the paper-based model.

Variance analysis actual vs original budget

- The 5% increase in the actual number of permits to burn against budget was reflective of the improvements gained in the use of the Bushfires Emergency Management System (BEMS) which allowed for more efficient issue of permits.
- The significant increase of 147% in planned burns attended by Bushfires NT and volunteers against budget reflects favourable weather conditions during April to June 2019 in the Top End. This allowed staff and volunteer brigades to undertake planned burns rather than attending wildfires, as in previous years. BEMS was also able to capture more accurate and efficient recording of planned burns.
- Number of fire management meetings were down 24% on budget due to reprioritisation of Bushfires NT staff to assist with wildfires during July to September 2018 in the Top End and during December 2018 to February 2019 in the Central Australia fire seasons.
- Actual trained stakeholders at year end was lower than the original budget by 20%, primarily due to a lower number of courses requested by pastoralists impacted by drought, particularly in the Barkly and Savanna regions. Flexible training options are proposed to occur during 2019-20, to increase the number of volunteers participating in training.
- Number of authorised volunteers and fire wardens was lower than budget by 12% as the estimated was calculated on the assumption that everyone who undertook training would go on to become an authorised volunteer.

Variance analysis actual vs estimate

- The number of permits to burn issued and planned burns attended are new measures that can now be more accurately measured using BEMS.
- The number of fire management planning meetings exceed the estimate by 27% due to new Bushfires NT staff starting in Katherine and Alice Springs, and an increased effort in the Vernon Arafura region to undertake fire management planning in readiness for the upcoming Top End fire season.
- The number of compliance inspections estimate was reduced during the year due to an expected reduced ability to undertake inspections. However the onset of the 2019 Top End fire season experienced milder fire weather conditions than expected and a continued focus on fire break inspections.
- The estimate for number of stakeholders trained accounted for roll out of flexible training options for volunteers which has been delayed by 6 months.
Performance achievements in 2018-19

Completed

- Developed and implemented the Bushfires Emergency Management System. 6
- Completed the Regional Bushfires Management Plan for the Alice Springs region. 2
- Developed and launched the Northern Territory Aboriginal Carbon Industry Strategy. 4
- Provided accredited training to Bushfires NT operational personnel in air observation to ensure an accredited air capability for the Territory. 4
- Improved public advice messaging during fire incidents, including the provision of Emergency Alerts and Warnings. 4 5 6

In progress

- Construction of a new Bushfires NT headquarters to house and co-locate the Winnellie and Batchelor offices. 5 6
- Finalising the Bushfires NT Volunteer Strategy 2019-2022. The Strategy aims to guide future support for volunteers and guide and assist with strengthening volunteer recruitment and retention. 4 5
- Reviewing and designing new grass firefighting units to meet safety and functional requirements for staff and volunteers. 4

Ongoing

- Increase the level of consultation, engagement and recognition of volunteer brigades and volunteers. 4 5 6
- Improvements in quality and replacement rate of personal protective equipment provided for volunteer fire fighters. 6

Future priorities

- Development of regional bushfire plans for the Barkly area. 5 6
- Improvements to training for volunteer and Bushfires NT staff including the introduction of nationally accredited training at advanced levels in key operational areas. 6
- Review and improvement of volunteer fleet management arrangements to ensure volunteer brigades are provided with best possible quality vehicles and equipment. 6
- Undertake an externally funded project, Identifying and Reducing Wildfire Risk in remote communities. 5
Environment

Provides assessment and monitoring to ensure 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
- developing and implementing strategic policy to ensure environmentally sustainable practices and behaviour

Services are provided from Darwin and Alice Springs.

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<td>Environmental assessment reports provided to the minister</td>
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<td>20</td>
<td>18</td>
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<td>Waste and pollution approvals and licences</td>
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<td>200</td>
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<td>Container deposit scheme approvals</td>
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<td>Compliance audits conducted</td>
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<td>120</td>
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<td>Responses to pollution incidents</td>
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<td>1,100</td>
<td>1,100</td>
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<tr>
<td>Environment grants to promote ecologically sustainable practices</td>
<td>$1m</td>
<td>$1m</td>
<td>$1m</td>
<td>$1m</td>
<td>-</td>
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<td>NT Environment Protection Authority satisfaction</td>
<td>4</td>
<td>≥ 5</td>
<td>5</td>
<td>5</td>
<td>≥ 5</td>
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</tbody>
</table>

1 KPI ceasing in 2018-19

Variance analysis actual vs original budget

- The number of Assessment Reports delivered to the Minister are reflective of the broader economic landscape and the number of developments proponents wish to pursue, there was an increase of 2 reports against an original budget of 2 reports.
- The number of decisions made on environmental assessments is dependent on the broader economic landscape and the number of developments proponents wish to pursue, there were 3 less than originally budgeted.
- The number of waste and pollution approvals and licences administered in 2018-19 is approximately 17% more than budgeted. This is predominantly associated with a targeted approach towards ensuring that waste activities are appropriately licensed and encouraging licensees who are no longer active to surrender their licences.
- Regulatory requirements to consider applications for approval, variation or renewal of beverage container approvals resulted in a high volume of these applications and a 16% increase on original budget. This was driven by the pace of change within the beverage container industry.
- Compliance and audits undertaken over the 2018-19 financial year showed a substantial increase of 62% on budget reflecting the increased field work of the Operations Branch. This emphasis on field work has delivered a number of positive environmental outcomes such as the identification and clean-up of illegal dump sites.
- The variance in responses to pollution incidents with actuals 17% less than budget, reflects in part, the referral of a number of reports to other regulators such as local government and the Liquor Commission.

Variance analysis actual vs estimate

- The administration of the Container Deposit Scheme (CDS) approvals increased by 9% when compared to estimate which is reflective of industry demand and the introduction of new products under the scheme.
Performance achievements in 2018-19

Completed

- Amended the Nuclear Waste, Transport, Storage and Disposal (Prohibition) Act 2004 and introduced Nuclear Waste, Transport, Storage and Disposal (Prohibition) Regulations 2019 to clarify the application of the Act to offshore oil and gas projects.

- Amended the Northern Territory Environment Protection Authority Act 2012 to meet commitments following the Final Report of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory Report (HFI Report). These amendments improved the governance of the NT EPA, enhanced the NT EPA’s advisory responsibilities to enable it to undertake system wide reviews of the performance of the environmental management system. It also enabled the NT EPA’s membership to support advice to government on hydraulic fracturing activities.

- Provided high quality advice and administrative support to the NT EPA to complete environmental impact assessment of major projects.

- Provided high quality advice and administrative support to the NT EPA Onshore Gas Committee and NT EPA to undertake environmental impact assessment of onshore petroleum proposals and advise the Minister for Environment and Natural Resources on Environment Management Plans (EMP) for onshore petroleum activities.

- Implemented transparency measures in the regulation of onshore petroleum activities with publication of an EMP and environmental incident reports.

- Provided high quality advice to the Minister of Environment and Natural Resources on EMP approvals under the Petroleum (Environment) Regulations 2016.

- Administered the Container Deposit Scheme (CDS), which saw over 109m containers redeemed at Northern Territory (NT) collection depots during 2018-19.

- Completed the 5 year review into the operation of the CDS.

- Completed auditing and compliance of more than 990 CDS records checked and verified for accuracy and validity. This is in line with recommendations from the independent review of the CDS that a greater focus on compliance with the scheme is required.

- Provided services to the NT EPA through the administration of 1,443 licences and approvals under the Waste Management and Pollution Control Act 1998 and the Environment Protection (Beverage Containers and Plastic Bags) Act 2011.

- Completed auditing and compliance of 5,000 waste transport certificates and annual waste under the Movement of Controlled Movement of Waste National Environment Protection Measure (NEPM) to determine the total volume of hazardous waste materials generated, stored, transported and disposed of within the NT and interstate over the past decade.

- Major upgrades to the NT EPA online licensing system to enhance system stability, accuracy, and functionality to improve accessibility and usability by industry.

- Administered the 2018-19 round of the Environment Grants program which provided more than $1m in funding to organisations to reduce environmental harm and promote sustainable behaviour.

- Maintained a pollution response capability for marine pollution incidents while the longer term arrangements for the Northern Territory Oil Spill Contingency Plan is finalised.

- Launched the AirRater app which alerts vulnerable residents when they are at risk from air-borne pollutants such as smoke associated with wildfires.
In progress

- Implementing the NT EPA’s administrative reforms of the environmental impact assessment process to increase certainty and improve transparency.
- Introducing the Environment Protection Bill 2019 to implement government’s commitment to develop an Environment Protection Act.
- Continuing policy research and development and stakeholder engagement to inform the further development of the Environment Protection Act to improve the Territory’s management of wastes, pollution, land clearing and the environmental impacts of mining activities.
- Finalising a guideline for preparation of an EMP and checklist for onshore petroleum activities to help interest holders in preparing EMPs.
- Assessment of EMPS under the Petroleum (Environment) Regulations and preparing advice and recommendations to the Minister for Environment and Natural Resources.
- Lead the finalisation and implementation of the NT Oil Spill Contingency Plan.

Ongoing

- Continuing to focus on training in environmental impact assessment to meet the NT EPA’s requirement to deliver high quality and timely environmental assessments.
- Implementing the recommendations from the 5 year review of the CDS in line with government’s commitments.
- Developing a fit for purpose online waste tracking system to accelerate the Environment Division’s capacity to track and interrogate data on the movement of hazardous wastes within the NT and to other jurisdictions under the Movement of Controlled Waste NEPM.
- Continuing to interact with other environmental regulators in other Australian jurisdictions in matters of waste, chemicals, NEPMs, PFAS and policy.
- Continuing to establish relationships with other government agencies, local councils and industry to improve understanding of how the department regulates.
- Continuing to improve the message and responses to development applications to drive consistency.
- Continuing to provide advice, alerts and service on the quality of the air environment particularly during the dry season.
- Providing contaminated site regulatory advice and requirements to the regulated community, including regulatory oversight of the NT’s response to PFAS.

Future priorities

- Amend the Marine Pollution Act 1999 to address practical deficiencies that limit the Territory’s ability to take enforcement action against foreign owned ships that may cause pollution in the Territory’s marine waters.
- Progress the implementation of changes to the Territory’s environmental impact assessment and approval process consistent with the Territory’s Government’s approved reforms.
- Focus on training in environmental impact assessment to meet the NT EPA’s requirement to implement and deliver reforms of the environmental impact assessment process.
- Develop onshore petroleum guidance material to assist in communicating regulatory requirements to interest holders.
- Develop community information material regarding environmental performance in the onshore petroleum industry in consultation with Department of Primary Industry and Resources.
- Implement and maintain a NT online waste tracking system.
- Administer environment grants program to focus on waste related issues.
- Finalise the department’s Environment Division Compliance and Enforcement Plan to ensure transparency to the regulated community.
- Finalise an air framework guideline addressing the air quality priorities for the NT.
- Develop hazardous waste management framework for the Territory.
Onshore Gas

Provides executive support, coordination and policy development to the department on the implementation of the major policy and regulatory reforms arising from the recommendations of the Final Report of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory (HFI Report).

This output is responsible for:

- ensuring effective and consistent implementation of relevant recommendations across the department
- leading strategic and cross-divisional policy development to achieve obligations of the recommendations of the HFI Report
- leading community and industry engagement regarding the onshore gas industry

Performance achievements in 2018-19

Completed

- Oversaw the transition for the department to become a key regulator for the onshore gas industry. 3
- Oversaw the implementation of relevant recommendations from the HFI Report required to be implemented before exploration approvals could be granted. 3
- Led the reform process for the Water Amendment Act 2019 and the Petroleum (Environment) Regulations 2016 to ensure that key commitments of the HFI Report are complied with in all circumstances. 3
- Developed the Code of Practice: Onshore Petroleum Activities in the NT, in conjunction with the Department of Primary Industry and Resources (DPIR) and CSIRO, which provides onshore petroleum operators with mandated requirements and expectations for the industry. 3
- Oversaw the development of technical guidance material to provide certainty to industry and the community regarding the department’s expectations. 3
- Released a joint Monitoring and Compliance Strategy for Onshore Petroleum with DPIR to provide clear guidance on the compliance obligations and expectations for the industry. 3
- Coordinated cross-government reporting and information sharing regarding implementation of the HFI Report recommendations including to the Community Business Reference Group and the Independent Officer for onshore gas in the Territory. 3 4

In progress

- Strategic policy development for the remaining recommendations of the HFI Report required prior to production activities commencing. 3
- Assistance with the development of business processes and other support tools for the department. 3
Corporate and Governance

Provides executive support and a range of corporate and governance services to support the agency’s functions, including financial services, human resource management, information and communication technology, governance and risk services, and communications and media.

This output is responsible for providing a wide range of corporate services to the agency, including:

- innovative information technology solutions
- information and records management
- business systems to support and enhance department capabilities
- financial services, budget management and compliance reporting
- governance, audit and risk management
- internal and external communications
- employee management through HR advice and support
- workforce development
- oversight of work, health and safety policy

Services are provided from Darwin and Katherine.

Performance achievements in 2018-19

Completed

- Implemented Independent Commission Against Corruption (ICAC) readiness by promoting materials on the intranet, developing supporting policies, and delivering training, tools and presentations.  
- Replaced business application servers in 3 locations to meet operational and data storage needs.  
- Launched the Go the Extra Mile (GEM) program as the revamped staff recognition program to celebrate employees who go above and beyond in their roles.  
- Increased awareness of the Information and Communication Technology (ICT) Committee role, governance and requirements for ICT projects. This also included the review of the committee’s structure and moving from quarterly to monthly meetings. Established a more operationally-focused Change Advisory Board (CAB), providing oversight to functional changes within the department.  
- Developed and launched a mandated training policy that incorporates appropriate workforce behaviours, code of conduct, cross cultural competence and corporate induction using online tools.  
- Facilitated a 2019 Senior Leaders Forum with a key focus on compliance and regulation. The forum brings leaders of the department together to foster collaboration and build strategic capability across the department.  
- Reviewed and updated the work health and safety online tools to ensure they are contemporary and aligned to departmental needs.  
- Created real-time human resource reporting for Governance Board members using Power Business Intelligence (BI) by Microsoft.  

In progress

- Working with the Department of Corporate and Information Services (DCIS) to deliver the Northern Territory Government open data policy outcomes.  
- Supporting delivery of departmental online system requirements.  
- Promoting business planning across the department and strengthening the quarterly reporting program over the 2019-20 financial year.  
- Redeveloping the departmental ICT Strategic Plan through divisional roadmaps and establishing an enterprise architecture.  
- Developing a departmental data strategy that identifies both short and long term requirements for data security and operational outcome needs.  
- Implementing the whole of government grants management system (GrantsNT).  
Ongoing

- Continuing to build the department’s social footprint.
- Reporting on department commitments and progress against the People Matters Action Plan.
- Conducting bi-monthly business manager meetings to encourage sharing of information, collaboration and strengthen relationships across the department’s divisions.
- Promoting and participating in whole of government projects and forums where appropriate to raise the profile and needs of the department. For example, whole of government open data and GrantsNT.
- Promoting internal staff for development opportunities in the department which are aligned to the temporary vacancy policy.
- Providing ongoing and operational support across the department’s information technology projects, including for the Onshore Gas Data Portal and the Bushfire Emergency Management System (BEMS).
- Supporting the Transforming the Government Records System (TRS) Program.
- Improving training offerings for regional staff.
- Ensuring managers are skilled in managing workplace incidents by upskilling managers in early intervention and workers’ compensation processes.

Future priorities

- Define the 2019-20 internal audit program based on whole of government audit requirements and high risk events. These have been identified on the department’s 2019-20 strategic risk register.
- Develop a manager training framework to build competencies into each manager’s core responsibilities.
- Develop a new strategic workforce plan that reflects the department’s current and future workforce challenges.
- Ensure the department’s organisational and governance structure align to the government’s budget repair report.

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 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.

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<thead>
<tr>
<th>Recipient</th>
<th>Purpose</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Geoscience</td>
<td>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.</td>
<td>$720,000</td>
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</tbody>
</table>

Sponsorships and scholarships

The department continues to provide support through sponsorship and scholarships for a range of community engagement events during 2018-19:

- Indigenous Carbon Network – $35,000
- North Australian Savanna Fire and Carbon Forum – $10,000
- NT Cattlemen’s Association Conference – $10,000
- Society of Environmental Toxicology and Chemistry Australasia Conference – $10,000
- Asiaflux Conference – $6,364
- Territory Natural Resources Management Conference - $4,000
- Charles Darwin University – Foundation – Barbara Singer Scholarship – $3,000
- 2019 Conoco Phillips Science Experience – $1,500
- 2018 Conoco Phillips Science Experience – $1,091
Communications and engagement

The department undertook a range of community engagement activities during 2018-19.

- Worked with the Traditional Owners of the Nangu homelands in Wadeye to share information from the Soil and Land Suitability Assessment for Irrigated Agriculture in the Nangu Area, Daly River/Port Keats Aboriginal Land Trust report, and the potential opportunities the investigation could provide them.

- Worked in partnership with the Department of Primary Industry and Resources and the Department of Trade, Business and Innovation to provide sponsorship at the 2018 Northern Australia Food Future Conference, held in Darwin in July 2018.

- Participated in the annual Northern Territory regional show circuit in Alice Springs, Tennant Creek and Katherine during July 2018. The displays promoted the department’s key activities and highlighted the 40 years of work history of the department with a range of historical photos for each decade in a timeline. The display was very popular with a lot of interest from the public.

- Participated in the Arid Lands Environment Centre ‘Ecofair’ in Alice Springs, which aimed to educate, inspire and activate the community around science and sustainability.

- The Water Resources Division joined the Power and Water Corporation and Living Water Smart team to deliver a 10 week science program at primary schools in Darwin and Palmerston. Over 350 students participated in the program, which allowed students and teachers to work alongside industry professionals to raise awareness of water use, supply, demand and efficiency in the Darwin region.

- Sponsored the Territory Natural Resources Management (TNRM) Conference and its associated awards held in Darwin in November 2018.

- Promoted Bushfires NT at the Arnhem Land Fire Abatement Ltd end of season meeting at Munbililla (Tomato Island) in Limmen National Park to share lessons about fire management and changes to the carbon industry.

- Supported the community to manage gamba grass and provide free gamba herbicide and equipment loans through the Gamba Action Program (GAP). In its ninth consecutive year, the program resulted in more than 3,000 landholder engagements. The program included a compliance component which saw over 1,300 property inspections completed.

- Sponsored the 2019 Northern Territory Cattlemen’s Association Conference in Darwin.

- Worked with the Edith Farms Volunteer Bushfire Brigade and Bushfires NT on the gamba grass field day at the Charles Darwin University, Katherine campus in February 2019. More than 50 people attended to understand the threat of gamba grass in the Katherine region.

- Presented at the annual Department of Primary Industry and Resources Agricultural Field Days in Douglas Daly and Katherine in April 2019.

- Participated in ranger group monitoring, including cultural water values, springs and groundwater levels.

- Supported the Northern Australian Savanna Fire and Carbon Forum in Darwin through the Bushfires NT Aboriginal Carbon Unit.

- Held several Water Advisory Committee meetings to develop water management plans in the Alice Springs, Ti Tree, Western Davenport, Mataranka, Oolloo, Katherine and Howard regions.

- Engaged with key stakeholders at the following industry conferences:
  - Australian Petroleum Production and Exploration Association (APPEA) Conference 2019
  - NT Waste Symposium 2019
  - South East Asia Australia Onshore and Offshore Conference (SEAAOC) 2018
  - Northern Territory Resources Week 2018
  - Territory Natural Resources Management Conference 2018