

The logo for the Northern Territory Environment Protection Authority (ntepa) is displayed in a lowercase, sans-serif font. The letters 'nt' are in a reddish-orange color, while 'epa' is in a darker red. The logo is positioned in the upper right quadrant of the page, partially overlapping a large red triangular graphic that points towards the top right corner.

ntepa

A horizontal bar with a dark red background on the left and an orange background on the right. The text 'ANNUAL REPORT 2016-17' is centered in white, uppercase, sans-serif font.

ANNUAL REPORT 2016-17



NORTHERN TERRITORY ENVIRONMENT PROTECTION AUTHORITY



LETTER FROM THE CHAIRMAN NT EPA TO THE MINISTER

The Hon. Lauren Moss MLA
Minister for Environment and Natural Resources
Parliament House
State Square, Darwin NT 0800

Dear Minister

I am pleased to present you with the Annual Report of the Northern Territory Environment Protection Authority (NT EPA) for the year ended 30 June 2017, as required under section 33 of the *Northern Territory Environment Protection Authority Act* (NT EPA Act).

The report describes the performance of the NT EPA's functions during the 2016-17 financial year.

Dr Paul Vogel
Chairman
Northern Territory Environment Protection Authority
23 October 2017





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CHAIRMAN'S MESSAGE

On behalf of the Northern Territory Environment Protection Authority (NT EPA) I am delighted to present this annual report on our activities.

2016-17 has been a period of change for the NT EPA, and I can't proceed without first thanking the NT EPA's inaugural chairperson, Dr William (Bill) Freeland, whose extensive knowledge of and experience in the Northern Territory was invaluable in establishing and steering the NT EPA over the last four years. I must also thank the Hon. Gary Nairn AO, former chairperson of the Northern Territory Planning Commission (NTPC) and ex-officio member of the NT EPA, for his contributions to ensuring the sustainable development of the Northern Territory.

During the year, there were a number of statements about the role and function of the NT EPA and its independence. I would like to take this opportunity to clarify and reiterate that the members of the NT EPA have never believed or felt our independence was

undermined or limited by our arrangements with Northern Territory Government agencies, which provide staffing resources and support, and technical and scientific advice. The NT EPA's independence is based on three elements, none of which are affected by the government or its ministers:

1. Our decision making is entirely independent. We cannot, either as the NT EPA or as individual members, be directed by the minister about any decision.
2. We are experts in our fields, and we are not public servants. We are not subject to or bound by rules of the public service to the extent that it may limit our capacity to make independent recommendations or decisions.
3. Our advice and recommendations are made available publicly.

In performing duties on our behalf that are directly related to the NT EPA's statutory functions (whether under delegation or in preparing reports and documents for our consideration), public servants providing support services to the NT EPA are subject only to my direction as chairperson of the NT EPA. This gives us legislative protection in that government agencies cannot direct the exercising of those powers and functions on our behalf.

The NT EPA's independence is central to our advice to government about the environmental acceptability of proposed development. It is also central in delivering our strategic goals to support and, where possible, improve sound environmental management outcomes in the Northern Territory.

The environment is the Territory's source of economic development and prosperity. Too often regulators and the community are subjected to claims that economic growth and development must be 'balanced' with environmental protection, when the truth is that these are inextricably interlinked. Nonetheless, prosperity brings environmental risk, and environmental impact assessment conducted by the NT EPA is an important predictive tool for making informed and transparent judgements about the environmental acceptability of proposed development.

Tourism, agriculture and fisheries industries all rely on the natural environment being maintained. Development projects must limit their environmental impacts and address community expectations for environmental management if they are to secure 'social licences' to operate. The lifestyle many Territorians enjoy and expect to continue to enjoy relies on the ecologically sustainable use of the environment. Ethical and sustainable industry investment is fundamental to future development of the Northern Territory.

The Northern Territory's environmental regulatory framework provides its own challenge in ensuring sustainable development. It is outdated and in many ways is failing Territorians. The NT EPA is encouraged by the government's commitments to build a robust and risk-and-outcome-focussed regulatory framework that will address the Territory's needs into the future. We trust our 'Roadmap for a Modern Environmental Regulatory Framework for the Northern Territory' will assist the government in meeting this goal.

We took steps to improve our own transparency during 2016-17 by publishing more information about our environmental impact assessment decisions on our website. We are also investigating ways to introduce greater certainty and streamlining into the assessment process without compromising ecological integrity while government undertakes its reforms. I hope to be able to report on our achievements in this area in 2017-18.

We at the NT EPA would like to thank everyone we worked with during 2016-17 from the proponents that hosted us for site visits, to the community and industry groups that met with us to share knowledge and information, to the public servants across the Northern Territory Government who provided advice to support our legislative responsibilities. I would especially like to thank staff in the Department of Environment and Natural Resources. Without their continued professionalism and expertise, the NT EPA could not have properly exercised its powers or fulfilled its functions in environmental impact assessment and waste and pollution management.

Dr Paul Vogel
Chairman, NT EPA

FUNCTIONS OF THE NT EPA

WHAT IS THE NT EPA?

The Northern Territory Environment Protection Authority (NT EPA) is an independent statutory authority established in 2013 under the *Northern Territory Environment Protection Authority Act* (NT EPA Act).

The NT EPA advises on the environmental impacts of development proposals. It also provides regulatory services to promote and enable ecologically sustainable development, effective waste management, pollution control and sustainable practices.

Information on the NT EPA's membership is at Appendix 1.

ENABLING LEGISLATION AND KEY RELATIONSHIPS

Legislative framework

The NT EPA Act states that the objectives of the NT EPA are to:

- promote ecologically sustainable development
- protect the environment, having regard to the need to enable ecologically sustainable development
- promote effective waste management and waste minimisation strategies
- enhance community and business confidence in the environmental protection regime of the Northern Territory.

The NT EPA's functions are to:

- advise and report to the minister under Part 3 of the Act
- undertake functions associated with environmental assessments and the management of waste and pollution as conferred on it under other legislation.

Currently the NT EPA is conferred powers under the *Environmental Assessment Act* (EA Act) the *Waste Management and Pollution Control Act* (WMPC Act) and the *Environment Protection (Beverage Containers and Plastic Bags) Act* (EP(BC&PB) Act) and supporting subordinate legislation.

The NT EPA comprises five members, who are appointed by the Administrator of the Northern Territory, and the Chairperson of the Northern Territory Planning Commission, who is appointed by the NT Minister for Infrastructure, Planning and Logistics in accordance with the *Planning Act*.

Section 9 of the NT EPA Act stipulates the independent nature of the NT EPA, in that neither the NT EPA (as an entity) nor any of its members are subject to direction by the minister or government. This independence is integral to the NT EPA providing evidence-based and transparent recommendations and advice about impacts on and the protection of the Territory's unique environment.

By 31 October of each year, the chairperson is required to prepare an annual report describing the performance of the NT EPA's functions during the previous financial year.

This report is to be tabled by the Minister for Environment and Natural Resources in the Legislative Assembly. This annual report is one tool used by the NT EPA to inform community and the government about its operations, and for the community and government to hold the NT EPA to account.

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Our relationship with community and industry

The NT Government has tasked the NT EPA with certain functions to help achieve its environmental management outcomes and objectives, including facilitating ecologically sustainable development in the NT.

The NT EPA cannot achieve these objectives alone. It is not sufficient for government to make rules and the NT EPA to enforce them. Community and industry play an important role in the NT EPA appropriately and effectively fulfilling its functions. The NT EPA relies on industry and the community to do their part by:

- engaging in the impact assessment of proposals and development of advice to the minister
- complying with environmental regulations where they apply
- providing information and evidence to support the NT EPA in undertaking its functions
- playing their part in protecting the natural environment through individual behaviours and practices.

At the same time, the NT EPA supports the community and industry by:

- investigating complaints about breaches of environmental regulations
- providing recommendations targeted at avoiding, mitigating and managing potentially significant environmental impacts from proposed development activities.

Our relationship with the Department of Environment and Natural Resources

The NT EPA's relationship with the Department of Environment and Natural Resources (DENR) is crucial. In accordance with the NT EPA Act, the Chief Executive Officer of DENR is responsible for ensuring the NT EPA has access to the facilities and staff necessary for it to 'properly exercise its powers and perform its functions'. Independence in the NT EPA's activities is retained by a further requirement that the staff members assigned to the NT EPA are subject only to the direction of the chairperson in the performance of their duties for the NT EPA.

This support is primarily provided by employees of the Environment division of DENR. The Environment division supports the NT EPA to exercise its powers and fulfil its functions by conducting the environmental impact assessment of significant development proposals and developing draft operational policies, guidelines and strategic advice about environmental quality and measures to protect the environment.

Under delegation from the NT EPA, DENR employees also consider, prepare and issue operational approvals and licences and undertake compliance and enforcement activities in accordance with the requirements of the WMPC Act and the EP(BC&PB) Act.

The NT EPA retains responsibility for key decision-making and is accountable for the delivery of its functions. Its focus is on significant and strategic matters, while Environment division employees supporting the NT EPA focus on administrative and operational matters. This support enables the NT EPA to provide recommendations to the Minister for Environment and Natural Resources about significant development proposals and advice on environmental issues generally while fulfilling its responsibilities to minimise the impacts of waste and pollution on the Northern Territory environment.

Our relationship with the Department of Environment and Energy

In 2014, the Northern Territory Government signed a bilateral agreement with the Australian Government under section 45 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act).

Consistent with this agreement, when a development proposal requires environmental impact assessment under the Northern Territory EA Act and the EPBC Act, the environmental impact assessment processes conducted by the NT EPA includes consideration of Commonwealth matters of national environmental significance. The NT EPA's environmental impact assessment reports are used by the Commonwealth Minister for Environment and Energy in deciding whether or not to issue an approval for a significant development project that may have an impact on a matter of national environmental significance.

During 2016-17, the NT EPA prepared one assessment report Project Sea Dragon Pty Ltd – Project Sea Dragon Stage 1 Legune Growout Facility (Legune), which was considered by the Commonwealth Minister for Environment and Energy in issuing an approval under the EPBC Act.

LEARNINGS

The importance of the environment to the Northern Territory's continued economic development and social and cultural wellbeing cannot be overstated. The growth of Territory's economy is heavily reliant on exploitation of its rich mineral and gas resources. At the same time, it is the unique landscapes and Aboriginal cultural activities in the Northern Territory that provide the basis for its thriving tourism industry. Significantly, almost 50 percent of land in the Northern Territory is used for agricultural and pastoral purposes. All developments are reliant, to varying degrees, on access to reliable water supplies.

The challenge facing the Territory is to develop in a sustainable way that preserves the environment and supports development and prosperity for current and future Territorians. We must consider a range of issues to be successful in meeting this challenge.

The Northern Territory is fortunate that it has not suffered the environmental degradation of many other parts of Australia and that it remains relatively intact and in good condition. But Territorians' belief in the pristine nature of the environment is continually challenged as signs that the natural environment is being degraded are observed. Many ecosystems are at risk from invasive plants and animals. Small mammals are disappearing from the landscape. Waterways are contaminated by metals leached from unmanaged legacy mine sites. Areas of Darwin Harbour are starting to show the consequences of the development pressures placed on it.

Development projects are increasingly large and complex, and they are often located in areas where the natural environment is still relatively intact and of potentially high value. This increases the risks of environmental impacts if projects are not appropriately located, designed, assessed and managed. Such projects are essential to strengthening and diversifying the Northern Territory economy, and the NT EPA is mindful of the need to ensure appropriate consideration of environmental impacts of development proposals while avoiding unnecessary costs for proponents.

Environmental assessment and management of development requires an understanding of the natural environment. Knowledge about the Territory's environment is growing but still limited compared with that of other jurisdictions. A lack of information about the environmental values of many potential development areas increases the risks posed by large developments and highlights the importance of appropriate assessment and monitoring systems and knowledge-sharing systems.

The Northern Territory covers 1 421 000 km² and its population of 240 000 is small, with over 55 percent of Territorians living in the greater Darwin region (which incorporates the cities of Darwin, Palmerston and surrounding rural area). 55 percent of land and 85 percent of the coastlines are Aboriginal owned. New and innovative ways to monitor the impacts of development across the vast landscape and to engage more actively and effectively with land managers in rural and regional areas, particularly Aboriginal land managers, need to be identified and implemented.



The Northern Territory ranges from wet, dry tropics in the north to desert landscapes in the south. The Top End is subject to cyclones and is routinely flooded in the wet season. Flooding in Central Australia, while occurring less often, is just as disrupting. Territory weather patterns inhibit capacity to undertake year-long monitoring of many waterways and bring their own challenges with managing water for development and return to the environment.

The NT EPA and the Northern Territory Government must acknowledge and respond to changing community expectations about how the Territory environment is managed. At the same time, we must recognise the very real limits on our capacity. The NT EPA needs to be considered and transparent in how it prioritises its efforts to maximise environmental outcomes based on risk. Decision makers can learn from experience in other jurisdictions but need to apply those learnings to the unique Territory context. The NT EPA must work better with industry and the community to address environmental concerns and build trust in the regulatory system to deliver the social licence required by industry if the Northern Territory is to continue to grow in an ecologically sustainable way.

The NT EPA's abilities are hampered by the regulatory framework, which is generally outdated and ill-suited to responding to changing community expectations or to managing impacts on the environment.

In January 2017, the NT EPA provided advice to the Minister for Environment and Natural Resources about regulatory reforms for the Northern Territory. The Roadmap for a Modern Environmental Regulatory Framework for the Northern Territory sets out the NT EPA's recommendations for improving the environmental impact assessment framework and the management of wastes and pollution in the Northern Territory. The Northern Territory Government has made commitments for environmental reform, and the NT EPA looks forward to working with the government to improve the regulatory framework. But government's plans will not prevent the NT EPA from making necessary improvements now where possible.

Since February 2017, the NT EPA has been publishing all its reasons for decisions about whether or not proposals require environmental impact assessment. This increase in transparency will inform the community and make the NT EPA more accountable while ensuring greater consistency in decision making. The NT EPA has also dedicated more resources to updating its website and ensuring reports submitted as a condition of licences are made publicly available faster.

The NT EPA will continue to work on its strategic policy framework to give industry and the community improved information about expectations for environmental management.



STRATEGIC PRIORITIES

ADDRESS PRIORITY ENVIRONMENTAL ISSUES

Priority: Improve waste management and minimisation across the Northern Territory



Case Study *Central Australian and Big Rivers waste management working groups*



The NT EPA has been working closely with the Big Rivers and Central Australian regional councils as part of a community-driven initiative to improve waste management practices in the Central Australia and Katherine regions.

The initiative has seen new waste management guidelines and strategies implemented. As a result, waste management in the regions has significantly improved and recycling facilities have been established.

The improved waste management practices were supported by an environment grant to develop an electronic waste reporting app, which enables the councils to collect real-time information on waste disposed, recycled and reused. Information collected in the app informs annual reports provided to the NT EPA under the conditions of landfill environment protection licences.





Photo supplied by Big Rivers Regional Waste Management Working Group

Priority: Improve the quality of storm water entering the Darwin Harbour



The 2016-17 wet season was one of the wettest on record, creating a challenging environment for managing environmental impacts from storm water. The NT EPA continued to implement its 'Stormwater Strategy for Darwin Harbour' in 2016-17, with a large portion of the NT EPA's proactive compliance and enforcement work aimed at achieving improved storm water quality.

During 2016-17, targeted inspections of industrial activities and processes that resulted in storm water pollution in the Northern Territory (or are known from other jurisdictions to pose risks) continued to highlight the need for greater industry and community understanding of the risks.

Industries that were visited in 2016-17 included the concrete industry, the small builder/construction industry, and vehicle maintenance and vehicle/plant washing operators. Officers observed general increases in operators understanding of their legal obligations and improved practices in these industries. Extra inspections and education activities with these industries (and others that pose risks to storm water, such as the livestock and intensive animal, mobile operator and boat maintenance industries) will be carried out in 2017-18. Officers will also survey industrial storm water catchment hot spots to get a better understanding of behaviours and risks to storm water from industry.

Priority: Improve the management of contaminated sites in the Northern Territory



The NT EPA manages contaminated land under the WMPC Act and in accordance with the *National Environment Protection (Assessment of Site Contamination) Measure 1999* to ensure land used for potentially contaminating activities does not pose a risk to the environment and human health. Some land use activities in the Northern Territory that pose a risk to the environment and human health include bulk fuel storage facilities, waste-handling facilities, landfills, Defence land, sites with historical asbestos burial and former mango farms/orchards that are being changed to intensive residential use.

During 2016-17, a number of contaminated sites in the Northern Territory were investigated, remediated and managed through a range of regulatory methods. These sites varied in size and nature: from small, privately owned premises to extensive government-owned sites.

In 2016-17, the NT EPA released the 'Northern Territory Contaminated Land Guideline' to assist in the management of contaminated and potentially contaminated land across the Northern Territory. The guideline is available on the NT EPA website (www.ntepa.nt.gov.au) with an asbestos fact sheet that clarifies the role of various agencies involved in regulating asbestos in the Northern Territory.





Case Study *Regulation of a contaminated site*



Recent subdivisions and land developments in the Northern Territory have highlighted the importance of ensuring the development assessment and approval process includes managing contaminated land.

An example is the proposed subdivision and development of former mango orchards on the outskirts of Darwin for residential housing. In reviewing the planning application, the NT EPA identified that the land of former orchards had the potential to be contaminated due to the historical high use of pesticides, particularly organochlorine pesticides (OCPs) such as dichlorodiphenyltrichloroethane (DDT), dieldrin and mirex. These pesticides cannot be used in Australia today, but residual contamination in the environment can occur.

The NT EPA recommended to the Development Consent Authority that a contaminated site assessment be undertaken. This recommendation was adopted and incorporated into a planning permit. A site assessment was conducted, which identified OCP contamination. The land was remediated to ensure the site was safe for the new housing development. All investigations, remediation and validation of the testing was overseen by an independent contaminated sites auditor, as directed by the NT EPA and in accordance with the planning permit.



Priority: Improve the management of noise emissions in the Northern Territory



The NT EPA receives noise complaints from many sources, ranging from crowing roosters in residential areas to noise from industry and commerce. Investigating noise complaints can be complex and time consuming, and complaints can be difficult to resolve. During 2016-17, the NT EPA progressed its proposed noise guidelines. These guidelines are intended to assist the community and regulators to avoid, minimise and resolve noise issues. Consultation on the draft guideline is expected to occur in the second half of 2017.

Priority: Improve the management of air emissions, including odour, from industry in the Northern Territory



During 2016-17, the NT EPA continued to address issues of air quality. The NT EPA responded to significant odour issues at the Australian Agricultural Company (AACo) abattoir through investing off-site odour impacts. Confirmed off-site odour impacts resulted in the NT EPA requiring AACO to undertake a range of improvements at the site to minimise the off-site odour impacts.

The NT EPA also provided expert advice on managing particulate and sulfur dioxide emissions to McArthur River Mine in its development of an air quality management plan for the mine site. The plan deals with all aspects of off-site emissions from the mine site, including extensive dust and sulphur dioxide monitoring, a revamped and easier-to-use website to view monitoring results and a range of management measures to reduce off-site impacts.

Measuring changes to air quality

The Darwin air quality monitoring network comprises three air quality monitoring stations (AQMS) located at Palmerston, Winnellie and Stokes Hill. It provides valuable information to the community and industry. Data is used to inform public health alerts, air quality modelling for environmental impact assessment of new developments, national air quality reporting and air quality policy. Live and historic air quality data is available from the NT EPA website (www.ntepa.nt.gov.au).

Figures 1 and 2 show PM₁₀ and PM_{2.5} data from 1 July 2016 to 30 June 2017 for Winnellie and Palmerston. As in previous years, the impacts of prescribed burning and wild fires on Top End air quality is evident in the elevated levels of particulate matter at both stations during the dry season months.

Fire and dust-related emissions, particularly in the dry season, have the greatest impact on air quality, overshadowing the impacts of the relatively low levels of heavy industrial emissions currently present in the Darwin airshed. The quality of the air in Darwin outside the dry season is generally very good to good on the Air Quality Index scale.

Note: the gaps in the data at Winnellie Station are due to damage suffered from a number of lightning strikes to the station.

Figure 1: 2016-17 Air quality monitoring – Winnellie (Particulates)

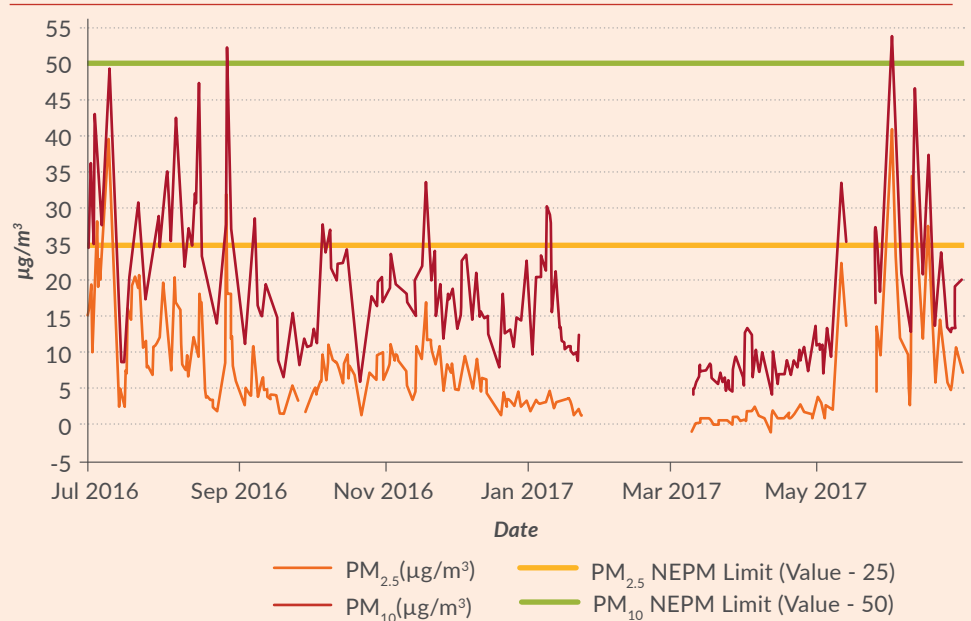
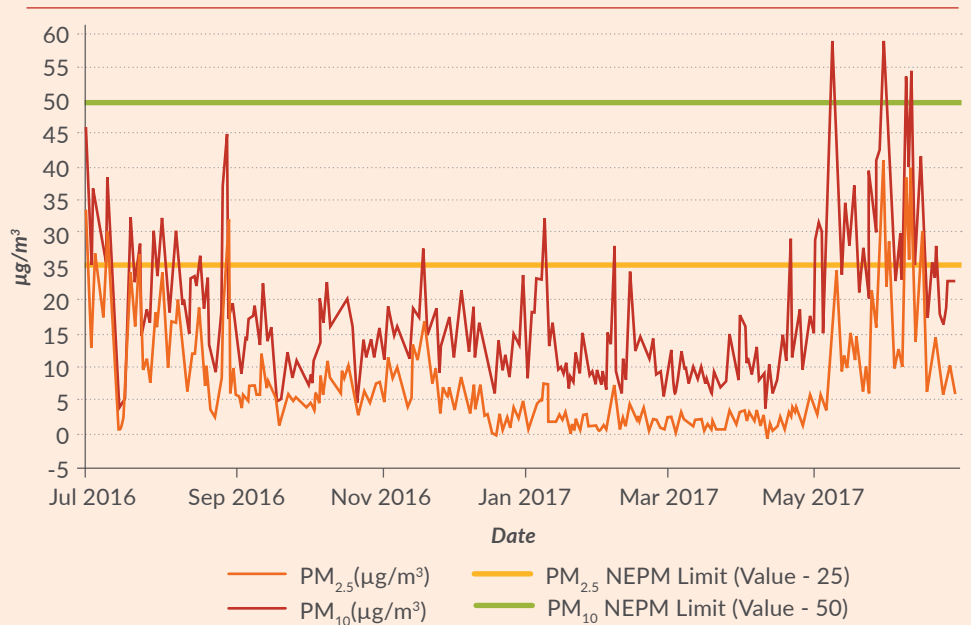


Figure 2: 2016-2017 Air quality monitoring – Palmerston (Particulates)



Case Study

Expanding air quality monitoring in Darwin



In 2016-17, a third ambient air quality monitoring station (AQMS) was installed at Stokes Hill Wharf in Darwin. The station complies with the *National Environment Protection (Ambient Air Quality) Measure* (NEPM) standards and will monitor all NEPM pollutants.

The addition of the Stokes Hill Wharf AQMS was achieved with a \$250 000 investment by INPEX, the operator of the Ichthys Liquefied Natural Gas (LNG) plant. The investment covered the purchase, installation and 12 months of monitoring of ambient air quality.

The Stokes Hill Wharf AQMS is strategically located to monitor potential air quality impacts from industrial development and increased shipping traffic in Darwin Harbour. This gives better air quality information to residents of the Darwin CBD and surrounds. From July 2017, it will be able to gather baseline data before the Ichthys LNG plant operations start.

MINIMISE ENVIRONMENTAL IMPACTS

Avoiding land use conflict

The development, growth and evolving character of a location can bring together land uses that are incompatible due to the external or off-site effects of one land use on another. Conflict can arise because of air emissions such as dust, smoke, fumes and odour generated from one land use affecting another. This may lead to environmental impacts that can be difficult to manage if not addressed early in the planning process. By separating potentially incompatible land uses, impacts can be avoided, reducing potential for land use conflicts.

In 2016-17, the NT EPA drafted a 'Recommended Land Use Separation Distance Guideline' that identifies suggested separation distances for different land use activities that could be established in the Northern Territory. The guideline will be finalised in 2017-18 following consultation.

Case Study *Berry Springs subdivision*



In 2016-17, a subdivision proposal in Berry Springs was referred to the NT EPA for consideration under the *Environmental Assessment Act* (EA Act). The proposal involved subdividing 260 hectares of land into 54 lots in two stages. Site surveys identified two threatened species on the site: the black-footed tree-rat and Howard River Toadlet. The NT EPA recognised the high environmental value associated with intact habitat supporting these species. The main area of habitat was found to be in the centre of the site. In collaboration with the NT EPA, the proponent revised the proposal to create a single central lot containing the majority of habitat supporting these species.

The subdivision now includes a wildlife corridor connecting the threatened species' habitat with surrounding bushland. Both the threatened species' habitat and the wildlife corridor have been zoned for conservation under the Northern Territory Planning Scheme. The proponent has committed to ensuring ongoing management of these areas.

The NT EPA considers this to be a good example of ecologically sustainable development, demonstrating use of the mitigation hierarchy to avoid impacts on the environment. By identifying the environmental constraints early in consultation with the NT EPA, the proponent was able to avoid effecting the environmental values of the site. This resulted in a decision by the NT EPA that further assessment was not required under the EA Act.

Priority: Advise on regulatory reform to establish a contemporary environment protection framework



In January 2017, the NT EPA provided the Minister for Environment and Natural Resources with its Roadmap for a Modern Environmental Regulatory Framework for the Northern Territory. The roadmap was prepared in accordance with part 3 of the NT EPA Act and sets out the NT EPA's recommendations for reforming the environmental impact assessment process and for improving the management of waste and pollution in the NT. The recommendations include revisions to the EA Act and WMPC Act and consolidation of the WMPC Act with other legislation that controls waste and pollution. This will remove duplication and provide more certainty in decision making by the NT EPA.

The NT EPA is confident that the roadmap sets out a pragmatic but strategic way forward that will maintain the unique environment of the Northern Territory while achieving sustainable development.

The Minister is required to consider the roadmap's recommendations and advise the NT EPA on her proposed response to the recommendations.

The Northern Territory Government has announced that it will replace the WMPC Act with an environment protection act. The NT EPA supports the intention of this commitment in principle and expects to be consulted by the DENR in designing the new legislation. The NT EPA looks forward to continuing to work with the Northern Territory Government, through the DENR, as the DENR pursues government's regulatory reform agenda.

While the DENR pursues that agenda, the NT EPA is reviewing its own administrative practices and processes to identify opportunities to increase transparency and certainty and reduce timeframes.

To that end, in February 2017, the NT EPA began publishing its statements for reasons for decisions about the environmental assessment of proposals. It is also implementing processes to improve timeliness in publishing environmental protection licences and approvals and associated documentation, including environmental management plans.

Priority: Undertake risk-based assessment of potential environmental impacts to inform approvals and compliance



Environmental impact assessment (EIA) is a systematic process for:

- identifying the potential environmental impacts and risks of a proposed action
- evaluating the significance of those impacts and risks
- determining appropriate avoidance, minimisation/mitigation and offset measures to reduce those impacts and risks to acceptable levels.

The NT EPA received notice of 26 projects for consideration under the EA Act during 2016-17, including three notifications of an alteration to a project under clause 14A of the *Environmental Assessment Administrative Procedures*. The NT EPA decided that five projects required assessment at the level of an environmental impact statement (EIS). Two of these decisions were made on variations to projects that are already being assessed at the EIS level, and two of the projects also require assessment under the EPBC Act. No projects were determined to require assessment at the level of a public environmental report (PER). The NT EPA decided that 16 projects did not require assessment during 2016-17, and the remaining decisions will be carried over to future reporting periods. Decisions made under the EA Act are detailed in Appendix 2.

The NT EPA prepares terms of reference, initially as a draft for public consultation, to define the matters relating to the environment that the proponent is required to address in a PER or EIS. During 2016-17, the NT EPA advertised for public comment, finalised and issued terms of reference to the proponent for two projects.

At 30 June 2017, proponents of six projects were preparing an EIS based on terms of reference issued by the NT EPA. At the same time, the NT EPA was developing terms of reference for one proposal and reviewing EISs for the following proposals:

- TNG Ltd – Mount Peake project
- Arafura Resources – Nolans Rare Earths project
- Intrapac Projects – Noonamah Ridge Estate
- Tellus Holdings Ltd – Chandler Facility
- Glencore McArthur River Mining – Overburden Management project.

Once assessment of the EIS and any supplementary information is complete, the NT EPA publishes an assessment report, which summarises the findings of the environmental impact assessment process and provides recommendations for matters to be addressed in environmental management procedures and approval conditions. Assessment reports for the following projects were completed in 2016-17:

- Project Sea Dragon Pty Ltd – Project Sea Dragon Core Breeding Centre and Broodstock Maturation Centre (Bynoe Harbour)
- Project Sea Dragon Pty Ltd – Project Sea Dragon Stage 1 Legune Growout Facility (Legune) (assessed under the bilateral agreement)
- Jemena Northern Gas Pipeline Pty Ltd – Northern Gas Pipeline.

Case Study

**Assessment of the Project
Sea Dragon Legune
Grow-out Facility**



Project Sea Dragon Pty Ltd is proposing to develop and operate stage one of a prawn aquaculture grow-out facility at Legune Station, 106 kms north-east of Kununurra near the Northern Territory-Western Australia border.

The proposal required assessment under the *Environmental Assessment Act (EA Act)* and the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. The NT EPA conducted the assessment on behalf of the Australian Government under the terms of a bilateral agreement established between the two governments.

The NT EPA's assessment was informed by:

- the information in Project Sea Dragon's environmental impact statement (EIS)
- a site visit to Legune Station
- public submissions on the draft EIS
- advice from government agencies and the NT EPA's appointed independent experts
- relevant guidelines and standards.

The NT EPA provided its assessment report to Northern Territory and Australian Government Environment Ministers on 15 March 2017. The NT EPA made 13 recommendations to assist the proponent and regulators ensure the project is implemented and managed in an environmentally acceptable way.

This included recommendations to address uncertainties associated with:

- the impact of discharges on water quality in Alligator Creek
- the potential impacts to significant waterbird aggregations from alterations to the hydrology of the Legune floodplain.

NT EPA recommended an independent review of water quality monitoring to inform revised water quality targets. It also recommended establishing a scientific advisory group to advise on waterbird monitoring and management. Improved data and independent oversight will enable the adaptive management of the project within acceptable environmental objectives.

The NT EPA's assessment report informed the proposal's approval under the EPBC Act and was provided to the Northern Territory Minister for Primary Industry and Resources to grant an aquaculture licence under the *Fisheries Act*.

Priority: Improve the management and compliance of waste and pollution

Licences and approvals

The NT EPA is responsible for issuing and administering approvals under the WMPC Act. Approvals and licences are required for a range of activities and facilities, including the storage and transport of listed wastes, the construction and operation of landfills, waste transfer facilities and the construction and operation of liquid natural gas (LNG) processing facilities. The objective of this licensing regime is to ensure the management of potentially harmful activities and facilities is undertaken in an environmentally acceptable and accountable manner.

The NT EPA also administers the EP(BC&PB) Act. Authorisations issued under this Act provide for the effective administration of the Northern Territory Container Deposit Scheme (CDS).

During 2016-17, the NT EPA administered the following authorisations (refer Figures 3 and 4):

- WMPC Act
 - o five new environment protection approvals issued
 - o nine environment protection approvals administered
 - o 20 new environment protection licences issued
 - o 115 environment protection licences administered.
- EP(BC&PB) Act
 - o four CDS coordinator approvals administered
 - o two CDS collection depot approvals issued
 - o 10 CDS collection depot approvals administered
 - o 347 CDS supply approvals administered
 - o 93 CDS supply approvals either issued or renewed
 - o 1 567 beverage containers approved.

A list of environment protection approvals and environment protection licences issued in 2016-17 is at Appendix 3. A substantial number of licence amendments and renewals were made to existing licences throughout the year. Current environment protection approvals and licences are available on the NT EPA website (www.ntepa.nt.gov.au).



Figure 3: Licences and approvals administered in 2016-17

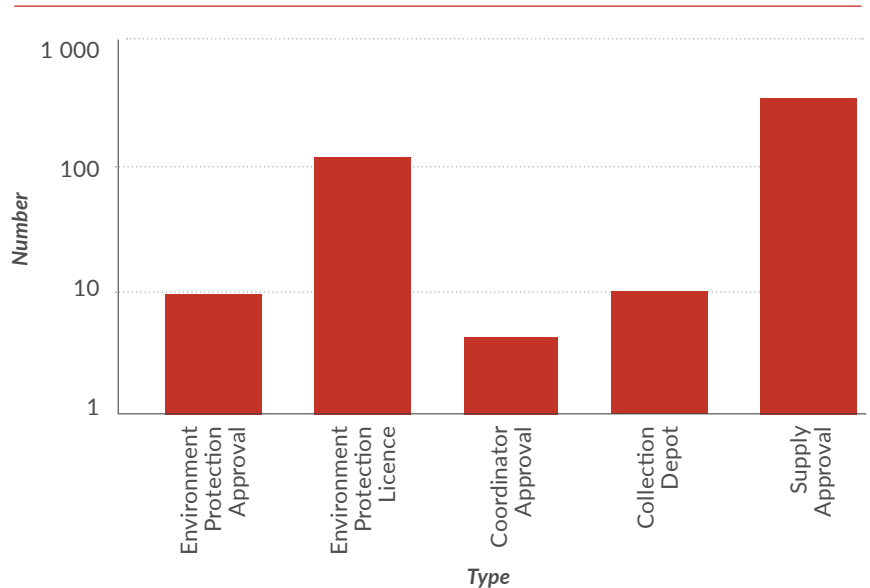
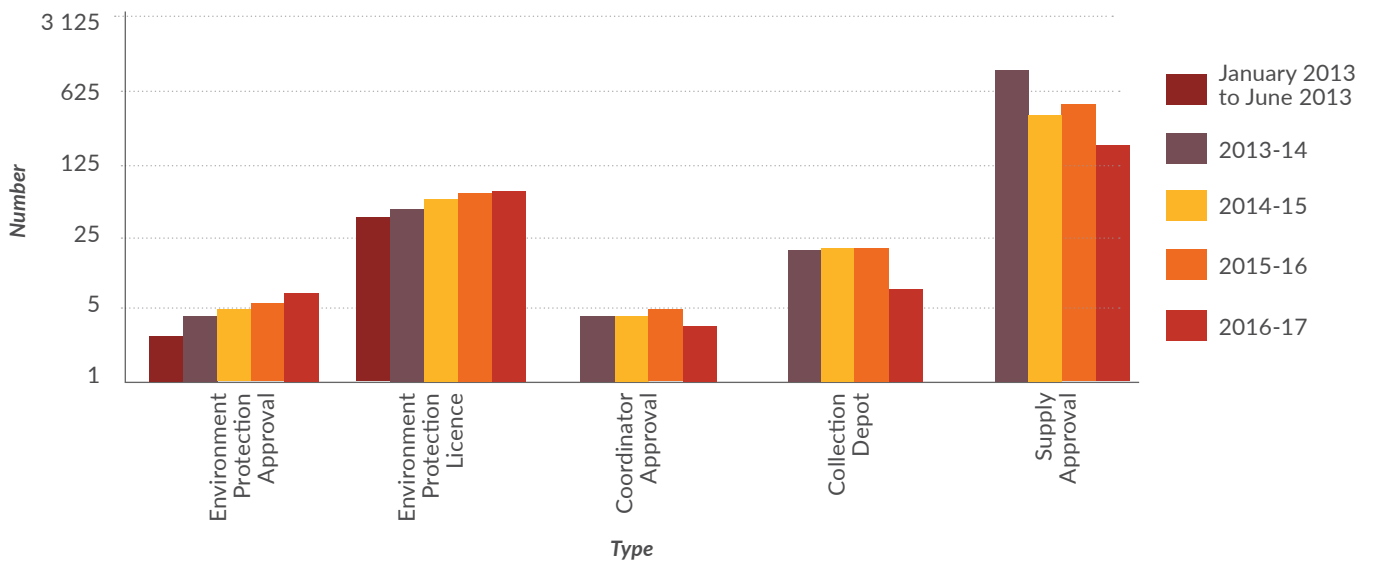




Figure 4: Licences and approvals administered from January 2013 to June 2017



Container Deposit Scheme

During 2016-17, 149 752 726 approved containers were sold in the Northern Territory. Of the containers sold, 71 680 286 were returned to container deposit scheme (CDS) coordinators. An overall return rate of 47.87 percent was achieved for 2016-17. Figure 5 indicates the trend in quarterly return rates during 2016-17.

Figure 5: 2016-17 Quarterly container return rate (%)

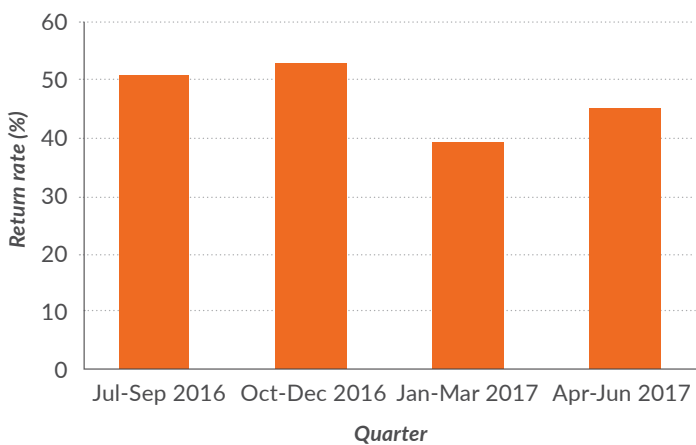
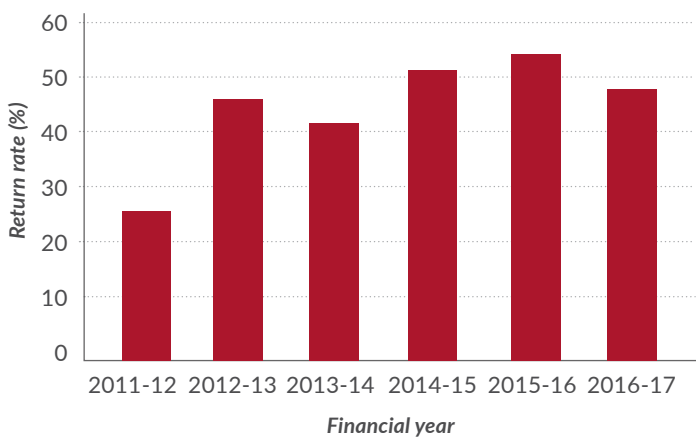


Figure 6 indicates the trend in annual return rates from commencement of the scheme. Factors contributing to the reduced return rates towards the end of 2016-17 are being explored.

Figure 6: Annual container return rate since CDS commenced in 2012 (%)



A total of 90 509 553 containers were redeemed at collection depots during 2016-17. 72 328 303 containers were redeemed in the Darwin Region (79.91 percent) and 18 181 250 in areas outside of Darwin (20.09 percent). This equates to over \$90.5 million in deposits that have been paid out to families, schools, communities, organisations and commercial operators in the Northern Territory.

Further information on the administration of the CDS will be provided by the NT EPA in its 2016-17 *Environment Protection (Beverage Containers and Plastic Bags) Act Annual Report*.

¹ Containers returned by a collection depot to a coordinator and available for reuse and recycling.

Compliance and enforcement activities

The Environment division of DENR was restructured to improve its capacity to respond to pollution incidents and undertake audit, compliance and enforcement activities on behalf of the NT EPA. This enabled a more consistent, timely and effective approach to education and compliance and enforcement.

The NT EPA's 'Compliance and Enforcement Policy' outlines the NT EPA's commitment to its regulatory role and the principles it follows when conducting compliance or enforcement activities. The policy is available on the NT EPA website (www.ntepa.nt.gov.au).

During 2016-17, the NT EPA recorded 879 reports about environmental issues. Reports ranged from small-scale domestic issues of nuisance to large-scale illegal dumping. Each incident is recorded and appropriate action is taken in line with the policy. A number of investigations from these reports have led to either successful or ongoing enforcement court action.

As in recent years, the NT EPA undertook a wide range of compliance actions across the Northern Territory in 2016-17. The majority of proactive efforts focus on long-standing, unresolved issues and problem premises that arise as a result of conflicting land uses and historical poor environmental management practices.

Proactive efforts to improve environmental outcomes from housing construction received significant attention in 2016-17, with officers observing improved awareness of responsibilities and performance by some in the construction industry. Illegal dumping on land also received greater focus, with the number of officer observations and reported incidents increasing over the last 24 months.

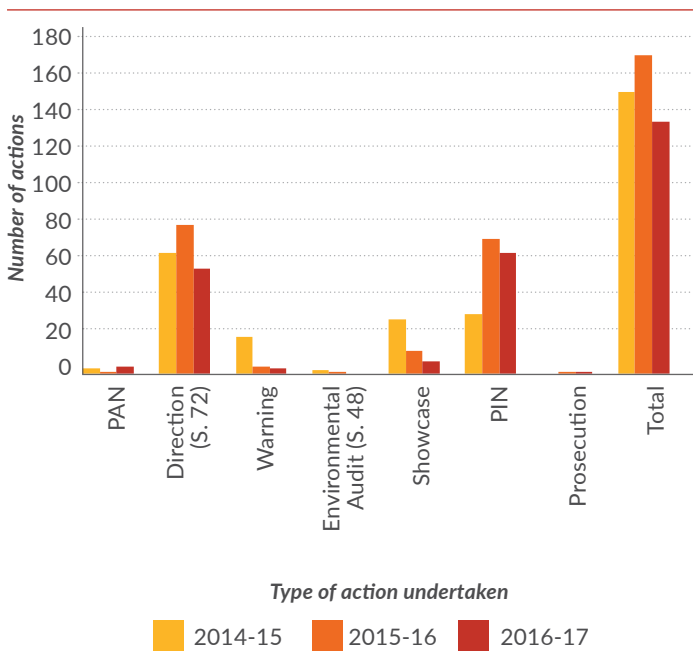
² Not all containers redeemed at a collection depot are returned to a coordinator in the same reporting period in which they are redeemed.



These efforts include increased education, collaboration and understanding with industry, other agencies and local government. It also involves NT EPA officers highlighting existing and potential problem areas and hot spots, and ensuring extra resources are allocated to monitor these on a routine basis.

The number of enforcement actions taken in 2016-17 compared

Figure 7: Number of compliance actions by type, 2013-14 to 2016-17



with previous years reflects a number of factors: the actual level of issues reported, changes to the divisional structure and officer priorities to support a number of resource-intensive prosecutions, and more proactive actions and inspections with an emphasis on education and advice. The numbers may also reflect improved practices in a number of industries.

Table 1: Penalty infringement notices by reporting period

Penalty infringement notice by type	2014-15	2015-16	2016-17
Conducting an activity without an environment protection approval or licence	0	2	0
Failure to comply with licence condition	3	1	4
Inappropriate storage of contaminant or waste	0	5	2
Failure to comply with authorised officer direction	22	50	52
Causing an environmental nuisance	7	11	7
Failure to notify within 24 hours of incident		3	0
Total	32	72	65

Entities issued multiple penalty infringement notices in 2016-17 are listed at Appendix 4.

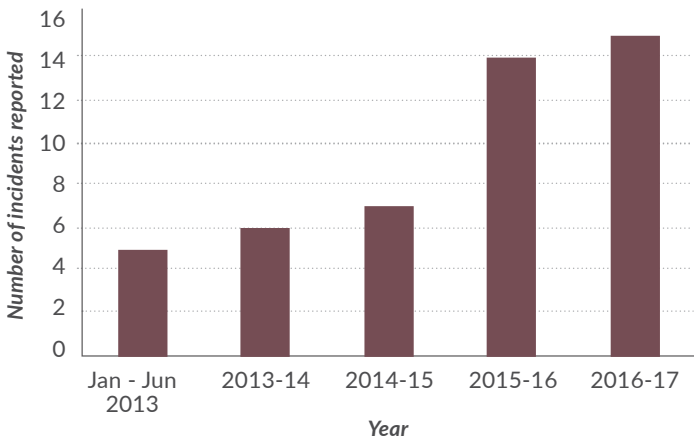


Pollution response

Section 14 pollution incident notifications

Section 14 of the WMPC Act requires that where an incident occurs in the conduct of an activity and the incident causes, or is threatening or may threaten to cause pollution resulting in material or serious environmental harm, the person conducting the activity must notify the NT EPA within 24 hours. The NT EPA refers to a report of this nature as a Section 14 Incident Report (Figure 8). Section 14 reports are available on the NT EPA's website (www.ntepa.nt.gov.au).

Figure 8: Section 14 incidents reported from January 2013 to 2016-17



The NT EPA is having ongoing discussions with industry about their responsibilities under section 14 to improve understanding of the purpose of section 14 reporting. When reports are received, officers work with industry members to identify the appropriate management response and any opportunities to minimise the reoccurrence of the incident leading to the report.

Pollution reports

The NT EPA maintains a 24 hour pollution hotline as its main method of reporting environmental incidents. During 2016-17, an online reporting tool was introduced to give the community an additional reporting method. The community continues to play a key role in identifying and reporting environmental offences and is encouraged to report all pollution incidents or environmental concerns to the NT EPA at the earliest possible opportunity.

In 2016-17, 879 reports were received, compared with 811 in 2015-16. Environmental nuisance complaints, particularly those related to air and noise, continue to dominate reported issues.

The very wet weather in 2016-17 also led to an increase in reports of water being polluted. Reports of issues to land (which includes dumping and illegal disposal of materials) also increased during the reporting period.

Figure 9: Pollution reports received 2014-15 to 2016-17

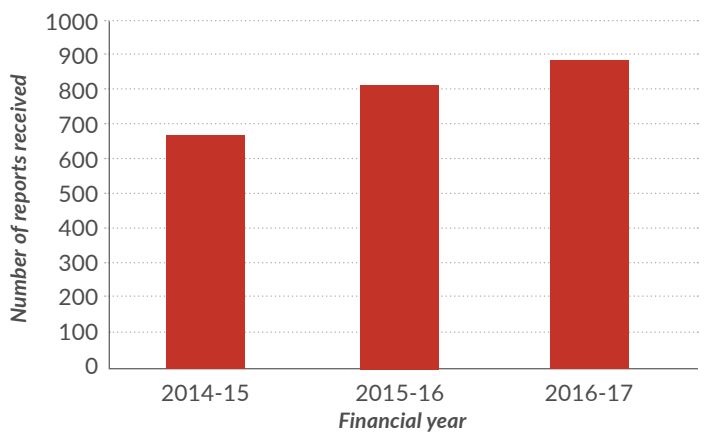


Figure 10: Pollution notification by type, 2013-14 to 2016-17

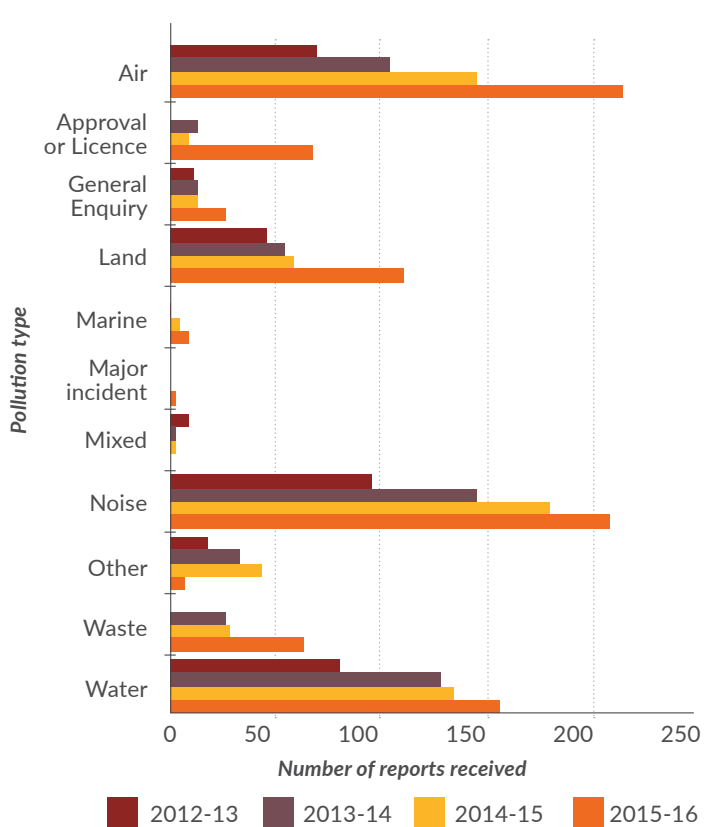
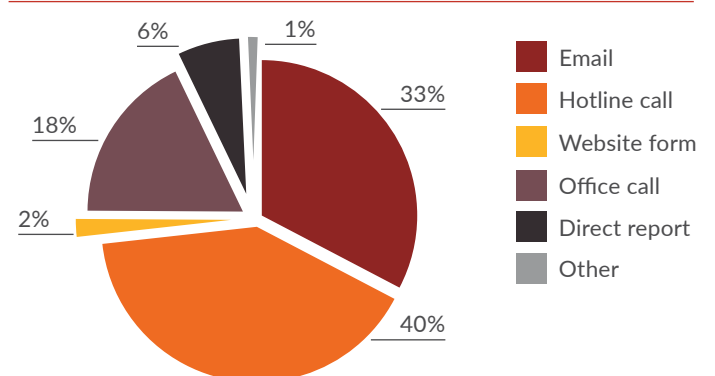


Figure 11: Breakdown of communication reporting methods





Case Study *Prosecution of Breakthrough (NQ) Pty Ltd*



In 2016-17, the NT EPA prosecuted Breakthrough (NQ) Pty Ltd (Breakthrough) for failing to comply with directions issued to it and for causing material environmental harm resulting from the burial of uncategoryed waste at a rural property in Humpty Doo (in Darwin's rural area).

It was alleged that over a period of weeks, housing demolition waste had been illegally disposed of at the property, saving the company both waste disposal and transport costs.

A direction was issued to Breakthrough to clean up the site, but this was not complied with. Excavations carried out in January 2016 indicated a large amount of demolition waste remained at the site.

Breakthrough pleaded guilty to two charges under section 76(c) and section 83(4) of the *Waste Management and Pollution Control Act* (WMPC Act). The court convicted Breakthrough of failing to comply with the lawful requirements of an authorised officer and of polluting the environment resulting in material environmental harm (being the potential to have an adverse effect on the environment). It imposed fines for both offences totalling \$65 000.

In addition to awarding the NT EPA its investigation costs, the court also issued an order requiring Breakthrough to clean up wastes from the property, returning it to its original condition.

The prosecution is contributing to greater awareness in the waste and construction industry of its legal obligations.

Priority: Support responses to major incidents with environmental impacts



The NT EPA responds to major incidents with environmental impacts where these fall in its area of responsibility. Outside those areas, it provides support and advice to the community and other regulators.

Per- and poly-fluoroalkyl substances (PFAS)

The NT EPA is responsible for managing sites of contamination and provides technical expertise and oversight for a number of site investigations being undertaken in accordance with the *National Environment Protection (Assessment of Site Contamination) Measure 1999*.

Since early 2016, the NT EPA has worked with the Northern Territory Department of Health to coordinate the Northern Territory's response to potential contamination from per- and poly-fluoroalkyl substances (PFAS). PFAS is an emerging group of contaminants, and investigations are underway throughout Australia to understand and manage the impact of PFAS on human health and the environment.

The NT EPA and the Department of Health are working with the Department of Defence, the Power and Water Corporation, Northern Territory Police, Fire and Emergency Services and other Northern Territory Government agencies to ensure environmental issues associated with PFAS are identified, assessed and appropriately mitigated where necessary in accordance with accepted best practice and relevant legislation.

In particular, the NT EPA is providing advice and support to the Department of Defence on environmental investigations for RAAF Base Darwin, RAAF Base Tindal and Robertson Barracks.

A number of other (non-Defence) sites in the Northern Territory have been identified as requiring a screening-level investigation based on the type and amount of PFAS usage in the past and potential for impacts on water supplies, recreational waters and fisheries. Based on the result of screening investigations, further investigation may be required to determine the appropriate management measures for the site.

The NT EPA is also providing input into the development of a PFAS National Environmental Management Plan, which is due to be finalised by the end of 2017 via its membership in the interjurisdictional PFAS National Chemicals Working Group.

The NT EPA expects to have continuing and increased involvement in the identification, investigation and mitigation of PFAS contaminated sites during 2017-18.

Oil spill in Darwin Harbour

In August 2016, the NT EPA received reports of a large oil spill in Darwin Harbour. DENR is responsible for regulating ship sourced pollution through the *Marine Pollution Act*, while the Department of Infrastructure, Planning and Logistics is responsible for the Northern Territory Oil Spill Response Plan—incident preparedness and response.

The NT EPA provided ongoing support and advice to DENR throughout the subsequent investigation into the cause of the oil spill.

Priority: Develop policy, guidelines and standards to inform leading environmental management practice



The NT EPA prepared the following guidance material in 2016-17, as discussed in more detail elsewhere in this report:

- Northern Territory Contaminated Land Guideline
- Fact Sheet: Asbestos Regulators and Information Sources in the Northern Territory
- Draft Recommended Land Use Separation Distance Guideline.



ENGAGE AND INFORM GOVERNMENT, COMMUNITY AND BUSINESS

Priority: Work effectively with stakeholders and partners to improve environmental management



As part of its regular board meeting program, the NT EPA meets with stakeholders and visits various proposal and development sites. These activities give the NT EPA a first-hand understanding of the interests, positions and concerns of different stakeholders and the environmental management issues faced by industry in the Northern Territory. 2016-17 visits included:

- McArthur River Mine
- site of the proposed Chandler Facility
- INPEX Ichthys onshore LNG facility
- Legune Station (Project Sea Dragon).

As part of the NT EPA's industry and community engagement program, the chairperson of the NT EPA met with a range of development proponents, land councils, government agencies, industry and environmental organisations.

Priority: Increase knowledge and awareness of environmental laws, impacts of activities and peoples' duty of care



In February 2017, the NT EPA decided to increase the transparency of its decision-making under the EA Act. Decisions that development proposals do not require assessment under the EA Act are now made available on the NT EPA website (www.ntepa.nt.gov.au).

Urbanisation in the Territory presents challenges as new proposals affect existing community living and the environment. The NT EPA provides advice on planning and development applications to the Development Consent Authority. Advice aims to inform developers of their environmental responsibilities and to improve the management of environmental nuisance issues, waste, pollution and historical land contamination.

As discussed elsewhere in this report, officers continue to conduct education and awareness programs as part of the NT EPA's compliance and enforcement activities.

Priority: Encourage industry and community bodies to contribute to the resolution of issues of environmental significance or public concern



Environment grants

The NT EPA administers the Northern Territory Government's Environment Grants program. The program provides funding to community-based projects to help reduce the impacts of waste and pollution on the environment. In 2016-17, grants totalling \$561 000 were issued to 20 organisations.

This included \$423 000 to schools, community groups and regional councils for projects aimed at improving waste management and recycling, and \$138 000 to schools, community groups and regional councils to establish infrastructure in support of the Northern Territory Container Deposit Scheme.

Case Study *Container Deposit Scheme - Kalkarindji*



The community of Kalkarindji (Daguragu) is 450 kms south west of Katherine and has a population of about 550.

Community members identified that large numbers of aluminium cans were ending up in landfill, with the primary source of the containers being the local social club. Through a Container Deposit Scheme (CDS) Grant issued by the NT EPA, the Victoria Daly Regional Council purchased a can-crushing machine to improve the recycling and transporting of containers to a CDS collection depot. The grant has enabled easy access to the container deposit scheme in regional and remote areas.

Since Kalkarindji began this project, some 100 000 cans have been diverted from landfill. The money collected from refunds is invested back into projects that benefit the community. The council is investigating the use of caged pallets to further reduce the waste generated and options for capturing the remaining cans in the community.



Priority: Advise government on environmental issues under Part 3 of NT EPA Act



EMERGING ISSUES

This report outlines the NT EPA's activities and achievements during 2016-17. It also identifies some of the NT EPA's plans for action in 2017-18.

There are some things we cannot plan for, such as in early 2016 when new knowledge came to light about the potential impacts of PFAS. This required us to adapt and change our focus to ensure the Northern Territory conducts its own investigations where necessary and responds appropriately.

There are other matters where we can take early action to try to mitigate future environmental impacts.

The illegal dumping of waste now makes up about 10 percent of reports to the pollution hotline. Officer observations and investigations indicate that illegal dumping events are increasing in scale, with the environmental risks and impacts of this activity also likely to be increasing. To address this, the NT EPA will focus on reducing the number, scale and impact of illegal dumping during 2017-18. It will increase its education and awareness activities about the impacts of illegal dumping with both industry and the wider community. It will continue to work with local councils and government departments to identify areas at risk of illegal dumping and adopt new approaches and technologies, including remote real-time covert cameras and drones.

There are numerous examples in the Northern Territory and across the world of the ongoing environmental impacts from historical, often now abandoned, mining activities. In March 2014, the NT EPA published recommendations on the environmental assessment and regulation of mine sites using the Redbank Copper Mine as a case study for a 'typical' historical mine site in the Northern Territory that has ongoing environmental impacts. An environmental quality report was also prepared for the Redbank Copper Mine.

In these publications, it was identified that inappropriate closure and rehabilitation outcomes primarily arose through failures in the regulatory system, including failures to ensure environmental risks were appropriately identified and assessed prior to commencement of mining. The publications made a number of recommendations to improve the environmental impact assessment process to learn from historical mistakes and improve environmental outcomes. The NT EPA implements recommendations about the environmental impact assessment process to the extent possible within the existing legislative framework.

Nationally there is an increasing focus on ensuring mining and resource projects undergo appropriate rehabilitation to prevent problems in the future. This includes a Senate Committee Inquiry into Mine Site Rehabilitation. The NT EPA will ultimately be informed by

Seabed mining report

In March 2012, in response to community concerns about the environmental impacts of potential seabed mining activities in Northern Territory waters, the Northern Territory Government issued a three-year moratorium on seabed mining. The then Minister for Natural Resources, Environment and Heritage requested the former Environment Protection Authority (former EPA) and the Aboriginal Areas Protection Authority (AAPA) undertake reviews to inform government's consideration of the possible future development and sustainability of the seabed mining industry.

In November 2012, the former EPA delivered its 'Interim Report: Seabed Mining in the Northern Territory' which is available on the NT EPA's website (www.ntepa.nt.gov.au).

The NT EPA's review is progressing and it is anticipated that a report will be finalised in 2017-18. Once complete, the report will be made available from the NT EPA's website and tabled by the minister in the Legislative Assembly.

Advice on onsite peri-urban sewage treatment options

During 2014-15, the NT EPA commissioned an independent investigation of current and proposed wastewater treatment systems for developments in the Northern Territory's rural and peri-urban environments. The investigation also reviewed the regulatory framework for wastewater management in the Northern Territory. The NT EPA, with the assistance of an interdepartmental working group, is developing advice to the minister on sustainable wastewater treatment options for the Northern Territory. The report is anticipated to be finalised during 2017-18. Once complete, the report will be available on the NT EPA's website (www.ntepa.nt.gov.au) and tabled by the minister in the Legislative Assembly.

what is happening in other jurisdictions; however, during 2017-18, it will look to identify other ways the assessment process can be used to inform decision makers about the adequacy of planned rehabilitation and closure activities.

In addition to considering how the assessment process can better inform mining activities, the NT EPA will be continuing its focus on improving environmental impact assessment processes to deliver better environmental outcomes for the Northern Territory.

Government's environmental regulatory reform program will modernise the Northern Territory's environmental management framework and the legislation that supports it. This will be important in improving environmental outcomes in the Northern Territory, but there are many things the NT EPA can do now to provide greater certainty, timeliness and transparency to the environmental impact assessment process.

Nationally there is an increasing focus on ensuring mining and resource projects undergo appropriate rehabilitation to prevent problems in the future.

One way to improve certainty is to provide better guidance material to educate regulators, developers and industry sectors on:

- when environmental impact assessment is required
- what the NT EPA and the community expects from the impact assessment process
- how quality information in EISs and firm, meaningful commitments can be monitored and enforced to achieve improved outcomes for the environment, support the objectives of assessment and provide improved guidance to decision makers.

The NT EPA will work closely with DENR to identify factors (such as land, air and water) that may be affected (both positively and negatively) by development activities and the environmental outcomes that ought to be achieved in order to protect those factors.

Uncertainty, however, is inherent in environmental impact assessment processes. Informed decision making is dependent on understanding the environment. Nature is dynamic and highly variable. The NT EPA and Northern Territory Government must continue to develop their understanding of the environment through environmental reporting, government programs aimed at improving knowledge, and the assessment process itself.

Improvements in knowledge can help the NT EPA better predict how a project or management regime will affect the environment, but impacts can never be fully predicted before a project or regime is implemented. An environmental management tool that is being increasingly called on to manage this uncertainty is adaptive management. Adaptive management is a structured, iterative process of decision-making with the aim of reducing uncertainty over time via environmental system monitoring. However, for the system of adaptive management to be effective, it needs to be properly applied.

Adaptive management is already widely used, particularly in the United States of America, but a number of pitfalls in implementing the system have been identified. These include the potential for lack of transparency, legal frameworks to support the system and clear guidance on expectations of the regulator. Recognising that adaptive management can be a useful tool and one that will be increasingly used by developers, the NT EPA will need to consider how adaptive management can best be used within Northern Territory frameworks and the Northern Territory context.

Another area the NT EPA intends to focus on in 2017-18 is the interface between the planning and environmental management systems. Many issues reported to the NT EPA pollution hotline result from incompatible land uses, and these issues are often hard to resolve and far easier to prevent.

As discussed in the case study, 'Berry Springs subdivision', the NT EPA works with proponents to identify and address potential environmental risks from proposed developments in the design phase of the development. In addition, all planning applications that may have environmental impacts are reviewed and recommendations made to the Development Consent Authority about how potential environmental impacts may be most appropriately managed.

By providing consistent comment and guidance early in the planning stage, the NT EPA can reduce long-term costs to industry and the community from inappropriate development and improve environmental outcomes.

One of the strengths of the Northern Territory planning and environmental frameworks is the ex-officio role the Chairperson of the NT EPA holds on the Northern Territory Planning Commission and vice versa. By participating in both the environmental and planning sectors, the NT EPA can ensure that environmental and planning considerations are considered holistically and early in the planning process and that wherever possible, incompatible land uses are avoided.

In 2017-18, the NT EPA will continue to work with the Northern Territory Planning Commission and the Department of Infrastructure, Planning and Logistics to achieve better environmental outcomes from the planning and development approvals processes.

2017-18 will also see the NT EPA revise its strategic plan to ensure issues affecting the environment, both current and emerging, are appropriately addressed.

APPENDIX 1: NT EPA MEMBERSHIP

DR PAUL VOGEL NT EPA CHAIRMAN

Dr Paul Vogel was appointed as the chairperson of the NT EPA on 14 November 2016.

Now a non-executive board director and strategic consultant, Dr Vogel was Chairman of Western Australia's Environmental Protection Authority from 2007 to 2015. Dr Vogel was also the inaugural Chief Executive and Chairman of the South Australian EPA from 2002 to 2007 and prior to that held senior executive positions in the Western Australian departments of the Premier and Cabinet and Environmental Protection.

Dr Vogel has a PhD in chemistry from the University of Western Australia and extensive knowledge and experience across a broad range of environmental issues and sustainability, in organisational and regulatory reform and in the delivery of strategic environmental and business outcomes.

Dr Vogel is also chairman of a national Cooperative Research Centre on Contamination and Remediation of the Environment (CRC CARE), a director of the Australian Technology Network of Universities (ATN) Australian Research Impact Advisory Board, a director of Global Aquatica (Australia) and a member of the Australian Institute of Company Directors. He first joined the NT EPA in January 2016.



DR IAN WALLIS

Dr Ian Wallis brings 30 years of experience as an environmental engineer providing advice to water and sewerage authorities and industries. He has been a registered environmental auditor for 17 years, providing advice in the form of environmental studies, audits, investigations and inputs into environmental impact assessments.



Dr Wallis conducted postgraduate research at Monash University in sediment transport, the dispersion of wastes in estuarine and ocean waters, and the social and technical issues involved in managing pollution. He has been a researcher at various universities and laboratories in the United Kingdom and United States of America.

Dr Wallis has extensive experience in environmental assessments, air quality, water quality and oceanographic studies, and he is recognised as one of Australia's experts in these fields. He was a member of the expert panels on desalination and on dredging in Darwin Harbour.

MS JANICE VAN REYK

Ms Janice van Reyk is an experienced non-executive director on a number of boards in the Victorian infrastructure and utilities sector, including Victorian Ports, Lochard Energy and Citywide. She previously served on the audit, risk and finance of Sustainability Victoria and the three-person Ministerial Advisory Committee to inquire into the future strategic role of the Environment Protection Authority Victoria.



Ms van Reyk's environmental experience includes advising on a range of socio-economic assessments, stakeholder consultations, and environmental and remediation issues. Together with her executive management experience in industry, she brings great depth to the NT EPA.

Ms van Reyk is a Fellow of the Australian Institute of Company Directors. She has a Master of Environment, specialising in water, energy and urban issues; a Master of Commerce, specialising in corporate finance, economics and accounting; a Bachelor of Arts; and a Bachelor of Laws.

DR JOHN CHAPMAN

Dr John Chapman completed his PhD in Organic Chemistry at the University of Sydney and subsequently obtained a diploma in environmental studies at the Macquarie University.

Dr Chapman brings more than 30 years of experience in the field of ecotoxicology and environmental protection having worked in the New South Wales Office of Environment and Heritage (OEH) and its predecessors. He is currently an Honorary Scientific Fellow with OEH. During this time, Dr Chapman was involved in ecotoxicology research, supervision and management and has produced numerous reports and advice in the area of chemicals and the impacts of contamination on the environment. Dr Chapman was involved in developing the toxicant guidelines for the Australian & New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000) and is on the team for the current revision of these guidelines. He currently undertakes occasional consulting in ecotoxicology and honorary work with OEH.



MR COLIN (JOE) WOODWARD

Mr Joe Woodward was appointed to the NT EPA in April 2017.

Mr Woodward brings more than 30 years of experience managing and advising on environmental regulation and approvals, having worked in a variety of roles in the New South Wales Environment Protection Authority and its predecessor, the State Pollution Control Commission.

Mr Woodward has extensive experience in environmental assessment and approvals and protection of air, water, noise, waste, chemicals and radiation, as well as biodiversity, threatened species and Aboriginal cultural heritage protection. He has served as a Commissioner for the New South Wales Independent Planning Commission, which is responsible for statutory assessments and determinations of state significant development proposals such as coal, gold and rare earths mining, coal seam gas, quarries, and major industrial and urban developments.

Mr Woodward holds a Master of Engineering and Bachelor of Science. In 2009, he was awarded the Public Service Medal for Outstanding Contribution to the Environment in New South Wales.



MR BRENDAN DOWD CHAIR OF NT PLANNING COMMISSION (EX. OFFICIO MEMBER)

Mr Brendan Dowd is the Chief Executive Officer (CEO) of the City of Darwin.

Mr Dowd has more than 30 years' experience in local government, and prior to taking up the CEO's role nine years ago, he was the Director of Technical Services at the City of Darwin.

Prior to this, Mr Dowd held a range of senior executive positions in local government in South Australia.

Mr Dowd holds a degree in Civil Engineering, a Graduate Diploma in Municipal Engineering and a Master of Business Administration. He is also a graduate of the Australian Institute of Company Directors and a Fellow of the Australian Institute of Management. Mr Dowd also completed the Harvard University, Kennedy School of Government, Senior Executives in State and Local Government program in 2015.

He has been the Local Government Association of the Northern Territory representative on the Planning Commission since 19 April 2015 and the Interim Planning Commissioner since 1 February 2017 while a permanent replacement is being sought.



THE HON. GARY NAIRN AO (1 JULY 2016 – 31 JANUARY 2017)

The Hon. Gary Nairn AO was the inaugural Chairperson of the Northern Territory Planning Commission from its establishment in 2013 until 31 January 2017 and served as an ex-officio member on the NT EPA during this time.



After a 25-year career as a surveyor in Australia, the United Kingdom and Europe, including 13 years as Managing Director of his Darwin-based surveying and mapping consultancy, Mr Nairn served as the federal Member for Eden-Monaro from 1996 to 2007.

During his parliamentary career, Mr Nairn was the Parliamentary Secretary to Prime Minister Howard from 2004 to 2006 and Special Minister of State from 2006 to 2007. His responsibilities in these roles included water reform, e-government, Commonwealth properties, the Australian Electoral Commission and five government business enterprises.

Mr Nairn lived in the Northern Territory from 1980 to 1995 and was involved in the planning, design and survey of many major developments, including Palmerston, Cullen Bay, Bayview and Katherine East.

Mr Nairn remains involved in the spatial industry, is chair of the Tasmanian Spatial Information Council (TASSIC) and is the immediate past chairman of the Spatial Industries Business Association (SIBA). Mr Nairn was made an Officer of the Order of Australia (AO) in the June 2015 Queens Birthday Honours.

DR WILLIAM (BILL) FREELAND (1 JULY 2016 – 14 OCTOBER 2016)

Dr Freeland was the inaugural chairperson of the NT EPA from its establishment on 1 January 2013. Dr Freeland resigned from the NT EPA effective 14 October 2016.



Dr William Freeland gained his Masters degree in Science at the University of Queensland before obtaining a PhD in Zoology from the University of Michigan. Dr Freeland is a former Director of the Parks and Wildlife Commission of the Northern Territory and Director of Conservation Strategy with the Queensland Government. As an environmental consultant, he worked with business and industry to improve environmental management in the Northern Territory.

Dr Freeland spent 30 years of his career in the Northern Territory and brought considerable knowledge, understanding and appreciation of the environmental issues in the Northern Territory, including those relevant to regional areas and the Indigenous community.

Dr Freeland represented the Northern Territory on various national environmental groups such as the National Standing Committee for Water, Land and Biodiversity; the Natural Resource Management Ministerial Council; and the Standing Committee to the Australian and New Zealand Environment Council.

During his career, Dr Freeland published scientific papers and consultancy work in the fields of conservation management, environmental impacts, waste management, ecologically sustainable development and tourism development.



APPENDIX 2: DECISIONS MADE UNDER THE ENVIRONMENTAL ASSESSMENT ACT

Table 2: Decisions that assessment is required at the level of an environmental impact statement in 2016-17

Proponent	Project	Date
Project Sea Dragon	Core breeding centre and broodstock maturation centre, Point Ceylon	19 August 2016
Department of Mines and Energy	Rehabilitation of the former Rum Jungle mine site	30 August 2016
Mousellis & Sons Pty Ltd	Koolpinyah Gunn Point project	15 November 2016
Project Sea Dragon	Core breeding centre and broodstock maturation centre – 14A variation	23 November 2016
KGL Resources	Jervois Base Metals Project – 14A variation	1 March 2017

Table 3: Decisions that assessment is not required in 2016-17

Proponent	Project	Date
Masterplan NT	Berry Springs Subdivision	18 July 2016
Department of Lands, Planning and the Environment and Department of Infrastructure, Planning and Logistics	Darwin Esplanade foreshore boardwalk	21 July 2016
All Earth Industries	Darwin Region North	19 August 2016
Department of Infrastructure, Planning and Logistics	Litchfield Park Road upgrade (Ch. 27.5 – 44km)	6 October 2016
Newmont Tanami Pty Ltd	Officer Hills Exploration Project	15 November 2016
Berno Brothers Pty Ltd	Mary River (dry sand extraction) project	15 November 2016
Berno Brothers Pty Ltd	Mary River Dredge Project	15 November 2016
Department of Infrastructure, Planning and Logistics	Construction of high level bridges Big Horse and Little Horse Creek, Victoria Highway	28 November 2016
Gulkula Mining Pty Ltd	Dhupuma Plateau Bauxite Mine	19 December 2016
Global Resource Recovery Pty Ltd	Liquid waste treatment facility	3 January 2017
Halikos Developments Pty Ltd	Berrimah Farm development	22 February 2017
Ostojic Group Pty Ltd	Sunday Creek East project 2016	10 March 2017
Department of Infrastructure, Planning and Logistics	Rapid Creek Catchment flood mitigation works	20 March 2017
Department of Infrastructure, Planning and Logistics	Wadham Lagoon flood mitigation works	10 May 2017
Landbridge Group	Darwin Luxury Hotel	16 May 2017
Department of Infrastructure, Planning and Logistics	Keep River Plains road upgrade	5 June 2017
ABM Resources	Tanami exploration project	29 June 2017

APPENDIX 3: LICENCES AND APPROVALS ISSUED

Table 4: New environment protection approvals issued under the WMPC Act in 2016-17

Approval Number (EPA)	Issued to	Activity	Date of Issue
187	MacDonnell Regional Council	Listed waste premises	1 December 2016
192	City of Darwin	Listed waste premises	23 September 2016
193	Wellard Rural Exports Pty Ltd	Listed waste premises	3 October 2016
195	Contract Resources Pty Ltd	Listed waste premises	12 January 2017

Table 5: New environment protection licences issued under the WMPC Act in 2016-17

Licence Number (EPL)	Issued to	Activity	Date of Issue
182	Sims Group Australia Holdings Limited	Listed waste collection, transport and storage	27 July 2016
185	Territory Vulcanizing Pty Ltd	Listed waste collection, transport and storage	20 December 2016
186	Leisha Mary Kelly	Listed waste collection and transport	20 July 2016
188	City of Darwin	Listed waste collection, transport, storage, treatment and disposal	20 July 2016
189	NT Hauliers Pty Ltd	Listed waste collection and transport	11 August 2016
191	JAC Asbestos Removal Pty Ltd	Listed waste collection and transport	25 August 2016
194	Akron Group NT Pty Ltd	Listed waste collection and transport	2 November 2016
196	Arnhem Earthmoving & Mechanical Pty Ltd	Listed waste collection and transport	5 December 2016
197	ANT Asbestos Solutions Pty Ltd	Listed waste collection and transport	15 December 2016
198	Niccon Pty Ltd	Listed waste collection and transport	3 February 2017
199	Darwin Recycling Pty Ltd	Listed waste collection, transport and storage	3 February 2017
200	VTG Waste Pty Ltd	Listed waste collection and transport	27 February 2017
201	West Arnhem Regional Council	Listed waste storage and disposal	6 March 2017
202	Veolia Environmental Services (Australia) Pty Ltd	Listed waste collection, transport and storage	11 May 2017
203	JN Mousellis Civil Contractors Pty Ltd	Listed waste collection, transport and storage	3 May 2017
204	Atkin Building Co Pty Ltd	Listed waste collection and transport	30 May 2017
205	Civmec Construction & Engineering Pty Ltd	Listed waste collection, transport and storage	24 May 2017
207	ASCO Transport and Logistics Pty Ltd	Listed waste collection and transport	9 June 2017

APPENDIX 4: ENTITIES ISSUED MULTIPLE PENALTY INFRINGEMENT NOTICES

- Damien Craig Golding (Golding Carpentry Contractors)
- Elias Investments Pty Ltd
- ENI Australia B.V
- HB Concrete Pty Ltd
- Insync Developments Pty Ltd
- Kassiou Constructions Pty Ltd
- Manolis Kavouklis Nominees Pty Ltd (KTM Builders)
- Northern Australia Beef Ltd (AACo)
- PTM Group Pty Ltd
- Supreme Homes NT
- Supreme Homes NT Pty Ltd
- Territory Homes
- Vanguard Homes Pty Ltd



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