ntepa

ANNUAL REPORT

2019-2020

Letter from the Chairperson NT EPA to the Minister

The Hon. Eva Lawler MLA

Minister for Environment
Parliament House
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 2020, as required under section 33 of the *Northern Territory Environment Protection Authority Act 2012*.

The report describes the performance of the NT EPA's functions during the 2019-2020 financial year.

Dr Paul Vogel AM
Chairperson

Northern Territory Environment Protection Authority
30 October 2020

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Chairperson's message

Annual reports provide us with an opportunity to review and reflect on the year that has passed – our achievements, our learnings and where we can improve.

The COVID-19 pandemic has brought fresh challenges for the Northern Territory Environment Protection Authority (NT EPA), our stakeholders and regulated community, and the staff in the Department of Environment and Natural Resources who provide NT EPA services. Like many other Australian organisations, the NT EPA has had to embrace video-conferencing to conduct its business. Unfortunately the ban on travel and social distancing requirements have limited the NT EPA's ability to undertake site visits and to maintain the level of engagement with stakeholders that it normally would. The NT EPA looks forward to increasing its engagement with stakeholders as circumstances allow.

In response to COVID-19, the NT EPA has prioritised the assessment of licence and approval applications, particularly where activities support essential services. The NT EPA has taken a constructive and practical approach to authorisations for businesses that have been impacted by COVID-19, while ensuring environmental outcomes are maintained.

While COVID-19 has had an enormous impact on how we live our daily lives, acquitting the responsibilities of the NT EPA continued with 2019-2020 being a more demanding year. The NT EPA examined the potential environmental impacts and risks associated with petroleum activities through the assessment of nine environmental management plans submitted in accordance with the Petroleum (Environment) Regulations 2016 and *Environmental Assessment Act 1982*. The NT EPA's advice on these EMPs has informed approval decisions of the Minister for Environment and Natural Resources.

The NT EPA is now better placed to determine when future onshore petroleum activities need to be referred for environmental impact assessment under the new *Environment Protection Act 2019* (EP Act).

The passage of the EP Act and Environment Protection Regulations 2020 (EP Regulations) was a landmark achievement for the NT Government – the culmination of years of work that establishes the foundations for a modern environmental impact assessment and approval system in the NT.

In anticipation of the commencement of the EP Act and EP Regulations on 28 June 2020, the NT EPA met its goal of completing the assessment of all notices of intent accepted prior to April 2020. This resulted in a smooth transition into the NT's new environmental regulatory system.

To further support this transition, the NT EPA prepared a range of guidance materials to support proponents and stakeholders in applying the new

legislation. This is an important body of work and I look forward to the coming year as we put this new legislation into practice and implement the new assessment processes and tools available to us to deliver more effective and efficient environmental impact assessment and environmental outcomes.

At the other end of the issues the NT EPA deals with, officers have maintained considerable efforts receiving and responding to a thousand pollution and environmental reports, conducting proactive and reactive site inspections, as well as issuing directions and regulatory instruments when required to ensure legislation is being followed and the environment protected. The NT EPA has and will continue to hold serious offenders to account through the Court system when warranted, and officers have spent significant time over the last year pursuing prosecution cases both in the Local and Supreme Courts.

The Supreme Court handed down its decision in The Environment Centre Northern Territory vs The Northern Territory Environment Protection Authority & Anor NTSC 69 in September 2019. In this case, the Environment Centre of the Northern Territory (ECNT) sought judicial review of certain decisions made by the NT EPA and the NT Pastoral Land Board regarding the environmental impact assessment and approval of land clearing at Maryfield Station. The Judge raised a number of issues about the NT EPA's decision making processes and practices – resulting in the NT EPA revising and strengthening those processes and procedures.

The NT EPA has dedicated much of its time over the last four years to supporting the NT Government's substantial regulatory reform program – but there is more to do. The NT's regulatory systems for managing wastes, pollution, land clearing, and environmental impacts from mining activities all require improvement. The NT EPA looks forward to working with the NT Government over the coming year to inform regulatory reform in these areas.

I would like to thank my colleagues on the NT EPA and the staff of the Department of Environment and Natural Resources for their tireless efforts in delivering on the NT EPA's responsibilities over the past year. The challenge of administering legislation while preparing for implementation of new legislation has been met with good humour, a strong work ethic and a shared commitment to deliver for the NT and Territorians.

Dr Paul Vogel AM

Chairperson, NT EPA

Objectives and functions

The Northern Territory Environment Protection Authority (NT EPA) is established by the *Northern Territory Environment Protection Authority Act 2012* (NT EPA Act) as an independent statutory body providing expert advice on environmental matters in the NT.

The objective of the NT EPA is to:

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

The NT EPA fulfils its objectives and functions by providing strategic advice and reports on a range of existing and emerging environmental issues, undertaking assessments of the environmental impacts of development proposals, and regulating wastes and pollution discharges and emissions. The objectives guide the NT EPA's decision-making under a range of legislation. Central to its decision-making is the definition of ESD, which means using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life now and in the future can be increased.

The NT EPA's advisory powers are contained in the NT EPA Act. Its powers and functions associated with environmental assessments and the management of waste and pollution are contained in the:

- *Environmental Assessment Act 1982* (EA Act) and supporting Environmental Assessment Administrative Procedures 1984, which were replaced by the *Environment Protection Act 2019* (EP Act) Environment Protection Regulations 2020 (EP Regulations) on 28 June 2020.
- *Waste Management and Pollution Control Act 1998* (WMPC Act) and supporting regulations.
- *Environment Protection (Beverage Containers and Plastic Bags) Act 2012* and supporting regulations.

In late 2018 new provisions were introduced into the NT EPA Act, requiring the NT EPA to develop a 'Statement of Intent' at least every two years. The statement is designed to improve understanding by the NT EPA's stakeholders, including government, industry and the community, of the NT EPA's future priorities and activities, and how these will support achievement of the NT EPA's statutory objectives.

During 2019-2020, the NT EPA developed its first Statement of Intent consistent with these obligations.

The Statement is available on the NT EPA's website.

Independence and accountability

The NT EPA's capacity to properly exercise its powers and functions in providing evidence-based, transparent recommendations and advice about the potential impacts on, and measures to protect the NT environment depends on the NT EPA acting, and being seen to act, in an independent manner. The NT EPA Act enshrines this independence by ensuring that neither the NT EPA (as an entity) nor any of its members are subject to direction by the Minister or government in the performance of the NT EPA's powers and functions.

The NT EPA is accountable to the NT community and government. This annual report provides an opportunity for the NT EPA to inform the community and government about its operations and performance over the previous financial year. The chairperson prepares a report annually by 31 October and the report is tabled in the Legislative Assembly by the Minister. Consistent with its commitments to transparency and community involvement, the NT EPA makes its annual reports available on its website.

The NT EPA currently comprises seven members appointed by the Northern Territory Administrator, and the chair of the Northern Territory Planning Commission who is appointed by the Northern Territory Minister for Infrastructure, Planning and Logistics, in accordance with the *Planning Act 1999*. The NT EPA member details are at Appendix 1.

Key relationships

Key to the success of the NT EPA is its relationships with the community, industry and government. Effective environmental protection and management is everyone's responsibility. The community and industry can assist the NT EPA meet its responsibilities by:

- complying with licences and environmental regulations
- engaging in and contributing to the impact assessment process for development proposals by making comments on impact assessment documentation made available for public comment
- being conscious of the importance of protecting the natural environment in company and personal behaviour and practices
- contributing information and advice to inform guidelines and policies prepared by the NT EPA
- reporting environmental incidents to the NT EPA.

Department of Environment and Natural Resources

The Chief Executive Officer of the Department of Environment and Natural Resources (DENR) provides the NT EPA with access to staff and facilities. The NT EPA is assisted primarily by employees of the department's Environment Division. These employees provide administrative and operational support to the NT EPA and in many cases act under delegation from the NT EPA. They perform a range of tasks associated with conducting the environmental impact assessment process, administering licences and approvals to protect the environment from the impacts of waste and pollution, investigating pollution complaints and potential breaches of the NT EPA's legislation and preparing draft reports and other advisory material to enable the NT EPA to provide the Minister with strategic advice.

This assistance enables the NT EPA to fulfil its legislated responsibilities, however the NT EPA makes all key decisions relevant to the exercise of its powers and functions, and remains accountable for the manner in which its powers are exercised.

The NT EPA and the department have an effective working relationship which is supported by provisions in the NT EPA Act designed to protect and maintain the NT EPA's independence. These legislative provisions ensure that those department employees assigned to support the NT EPA are subject only to the direction of the chairperson in the performance of their duties for the NT EPA.

Australian Government Department of Agriculture, Water and the Environment

In conducting environmental impact assessments, the NT EPA acts in accordance with a bilateral agreement established between the NT and Australian governments under section 45 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth; EPBC Act). Under the agreement, the NT EPA will consider any matters of national environmental significance that may be impacted by the development proposal and will prepare an assessment report that considers impacts on those matters, as well as matters of importance to the NT. The Australian Government Minister for the Environment uses the NT EPA's assessment report in determining whether to approve a development proposal that may have an impact on a matter of national environmental significance.

The NT EPA prepared one assessment report that was considered by the Australian Government Minister in 2019-2020, being Assessment Report 92 regarding NT Mining Operation's Union Reefs North Underground Mine.

Heads of EPAs

The NT EPA is an active participant in the activities of the Heads of EPAs (HEPA). HEPA is a high-level forum comprising chairpersons or equivalent representatives from all Australian jurisdictions and New Zealand that provides an opportunity to share knowledge and experiences, identify opportunities for improvements in nationally consistent regulation, and promote greater coherence in regulatory practice and policy across jurisdictions.

During 2019-2020, the NT EPA Chairperson attended HEPA meetings, while the department's employees participated in a range of HEPA working groups. This included regular sharing of information on COVID-19 and the response of environmental regulators across Australia.

Activities of the NT EPA

Objective 1: Promote ecologically sustainable development

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

Review and update guidance material for environmental impact assessment in the NT

The EP Act was passed in the Legislative Assembly in September 2019 with the subordinate EP Regulations being gazetted on 15 April 2020. This achievement of the NT will give the NT EPA access to improved mechanisms to deliver its regulatory responsibilities for environmental impact assessment. The new processes include the consideration of the impacts of a changing climate in the assessment process, and facilitate improved engagement with stakeholders and the community. The EP Act commenced on 28 June 2020.

To ensure the consistent and transparent environmental impact assessment of proposals under the EP Act, the NT EPA has developed guidance material to support proponents and the community. Guidance material is focused in streams – for all stakeholders, for proponents, or as technical guidance.

The community participated in the development of guidance material for the new EP Act through a combination of public and targeted consultation processes. The NT EPA appreciates the time taken to prepare submissions and valuable responses it received through these processes.

The NT EPA revised and finalised the following Guidelines that communicate the NT EPA's expectations under the new environmental impact assessment regime:

- Guide to the NT EPA's environmental factors and objectives
- Guidance for stakeholders – making a public submission during the environmental impact assessment process.

The following guidelines have recently undergone public consultation and are expected to be finalised and available on the NT EPA website in early 2020-2021:

- Guidance for proponents – referring a proposed action to the NT EPA
- Guidance for proponents – preparing a supplementary environmental report
- Guidance for proponents – preparing an environmental impact statement
- Guidance for proponents – referring a significant variation to the NT EPA
- Guidance for proponents – stakeholder engagement
- Guidance for proponents – referring a proponent initiated EIS to the NT EPA.

The NT EPA will develop and consult on its technical guidance through the remainder of 2020.

Develop air quality management framework

The 'Air Quality Management Framework Guideline', a first of its kind for the NT, has been drafted and is being trialed internally as the first step in its introduction and use by the community. The Guideline provides guidance for the community and industry in areas such as applicable standards for point source emission in the NT, airshed modelling requirements, and best practice environmental management of air emissions.

It is expected that after the trial the NT EPA will consult on the Guideline before it is finalised and adopted by the NT EPA.

Revise NT EPA meeting procedures

On 4 September 2019 in the Supreme Court, Justice Barr delivered judgment on the judicial review of the NT EPA's decision relating to a proposal to clear native vegetation on Maryfield Station. The NT EPA's purported decision was that the proposal to clear native vegetation did not require assessment under the EA Act. Justice Barr found that the NT EPA decision was invalid as it did not comply with decision making requirements of s20(1) of the NT EPA Act. His Honour ordered the NT EPA decision be quashed. Following the judgment, the proponent withdrew the application. The NT EPA reviewed a revised, smaller application and decided not to call it in for consideration as a notice of intent under the EA Act.

In response to this judgment, the NT EPA made changes to its meeting procedures, particularly relating to the manner it conducts its meetings, voting procedures and recording its decisions.

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

Advice on environmental management plans under the Petroleum (Environment) Regulations 2016

The Minister sought advice from the NT EPA under section 29B of the NT EPA Act as to the acceptability of environment management plans (EMP) for onshore petroleum activities. The NT EPA's independent expertise provided an additional layer of technical scrutiny to the assessment of EMPs to support the Minister's decision whether to approve an EMP or not.

The NT EPA's Onshore Gas Committee (refer Appendix 1) was established to provide expert review and advice to the NT EPA to inform its advice to the Minister on onshore petroleum EMPs.

In 2019-2020, the NT EPA provided advice to the Minister on nine EMPs. The NT EPA's advice on each EMP considered:

- whether the EMP was appropriate for the nature and scale of the proposed activity
- whether environmental impacts and risks are reduced to a level that is as low as reasonably practicable and acceptable
- whether the proposed activity and its management meets the principles of ESD, and
- any relevant matters raised through public submissions.

The NT EPA recommended approval conditions to provide additional regulatory oversight in ensuring potential environmental impacts and risks are managed, and provided advice on annual environmental reporting requirements.

In February and March 2020, DENR undertook a review of its administration of the Petroleum (Environment) Regulations 2016 and *Water Act 1992* to identify improvements in the effectiveness and efficiency of its regulation of the onshore petroleum industry. The review was informed by the views of the Onshore Gas Committee (OGC) raised throughout its assessment of EMPs in 2019-2020.

A total of 49 recommendations to improve the quality and content of EMPs and increasing regulatory efficiencies were identified in a draft report, which was reviewed by the OGC. The review report is expected to be finalised and approved by DENR in early 2020-2021. It will then be provided to participating stakeholders including the NT EPA, NT government agencies and interest holders and adopted recommendations implemented.

Engage with government, industry and community to promote ecologically sustainable development

Improve engagement with stakeholders

To fulfil its statutory obligations, the NT EPA actively engages with proponents, stakeholders and the community to facilitate the making of decisions that achieve good environmental outcomes and promote ecologically sustainable development (ESD). Throughout 2019-2020, the NT EPA met with a number of different stakeholders (refer Objective 4).

Community and other stakeholder input is critical to environmental impact assessment, and the public exhibition of environmental impact assessment documents provides an opportunity for the community to share their knowledge and opinions by making a submission. The NT EPA considers all the issues raised in submissions, and the proponents' responses to those submissions, during its assessment of a proposal. Public involvement in environmental impact assessment provides value and can improve outcomes by ensuring the benefits of a proposal are maximised and adverse impacts are minimised. Post-assessment feedback from proponents helps the NT EPA to continually improve its application of the environmental impact assessment process to achieve the objectives of ESD.

During 2019-2020, three Assessment Reports were completed under the EA Act for the Jervois Base Metal Project, Tom's Gully Underground Project and Union Reefs North Underground Mine. Each of these reports acknowledged and addressed the issues raised in public submissions.

Engagement with proponents and licensees continues to be of significant benefit to the NT EPA in clarifying and deepening its understanding of development proposals and licensed operations, the potential impacts on the environment and options for their management associated with different activities. This engagement also provides the NT EPA with a valuable opportunity to review its environmental impact assessment recommendations and licence conditions with the assistance of former proponents and licence holders to improve future recommendations, and data and information requests.

Objective 2: Protect the environment, having regard to the need to enable ecologically sustainable development

Regulatory reform

Throughout 2019-2020 the NT EPA continued to provide advice and guidance to improve the NT's environmental regulatory framework. This advice primarily focused on the development of regulations to specify environmental impact assessment processes for the NT and support the EP Act.

In anticipation of the commencement of new legislation in 2020, the NT EPA used the past year to review and rebuild its public guidance, internal processes and decision making.

The NT EPA approached this review and rebuild as part of its commitment to ongoing improvement and as an opportunity to ensure all stakeholders in the environmental impact assessment process are supported to achieve high quality outcomes, whether they require increased certainty, better quality protections for the environment, or more efficient processes.

Licences and approvals

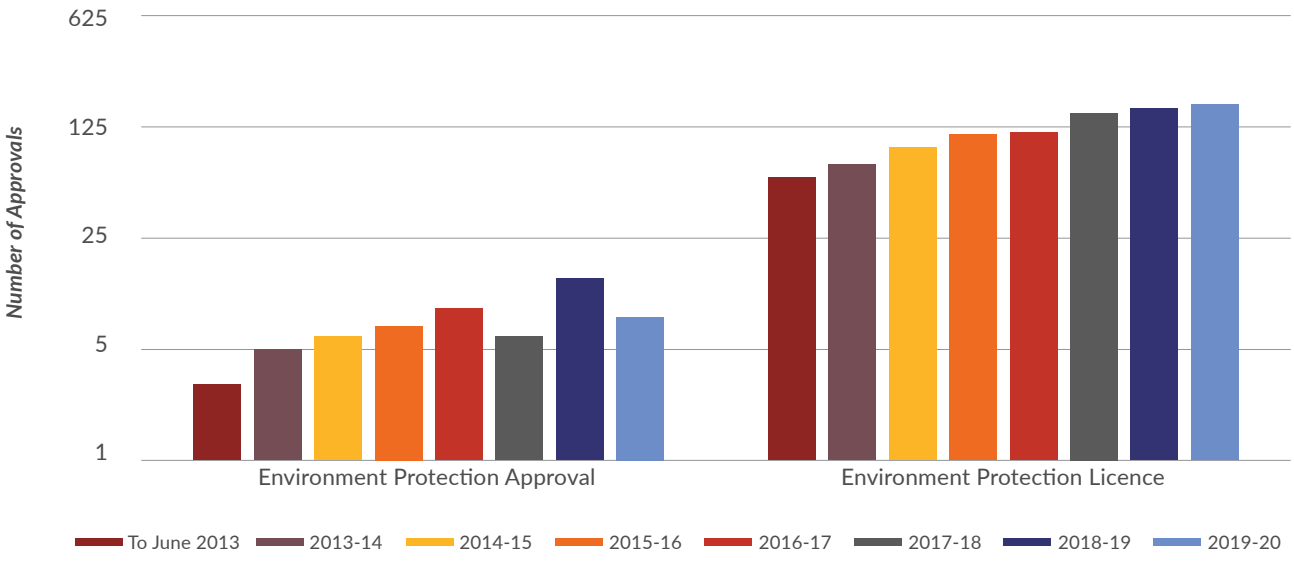
The WMPC Act establishes an environmental approvals and licensing regime for activities specified in Schedule 2 of the Act. Environment protection approvals (EPAs) and environment protection licences (EPLs) are required for the following activities:

- storage and transport of listed waste
- construction and operation of landfills
- construction and operation of waste transfer facilities
- construction and operation of liquefied natural gas (LNG) and methanol processing facilities.

During 2019-2020, the NT EPA administered eight EPAs and 173 EPLs (Figure 1; see also Appendix 3). The number of EPAs administered declined slightly from 14 EPAs administered in 2018-2019 due to a combination of EPA expirations and withdrawals and the granting of exemptions. The number of EPLs administered in 2019-2020 represents a modest increase in licensing activity when compared to 2018-2019 (163 EPLs administered).

The NT EPA continued the transfer of paper licences into its online licensing system as licences became due for renewal or amendments were required. By the end of 2019-2020, only one paper licence remains to be transferred to the online system, with the final licence due for renewal by end of 2020.

Figure 1: Licences and approvals administered from Jan 2013



Improving environmental regulation of crocodile farming

A number of crocodile farms have been operating in the Darwin region for many years. Officers have been working closely with the crocodile farming industry to improve waste management and protect the environment. The management of animal effluent and residue waste is licensed under the WMPC Act.

Darwin Crocodile Farm at Bees Creek became the first crocodile farm to be issued an environment protection licence in June 2020. Two other applications are in the process of being assessed under the WMPC Act.

Improve the quality of stormwater entering Darwin Harbour

The NT EPA is implementing the 'Stormwater Strategy for Darwin Harbour'. A significant part of this implementation has involved providing advice and guidance to the construction industry, because officers have noted that some sectors of the community, developers and industry do not understand the application of the General Environmental Duty contained in the WMPC Act. Some sectors still wrongly assume that they can use stormwater drains to dispose of waste, including sediment and effluent from oily water separators.

To correct this, officers have continued to implement campaigns to ensure the community understands the General Environmental Duty, for example:

- by providing consistent comments during the planning and approval phase of a project to ensure the proponent is aware of their obligations to prevent pollution and minimise waste
- issuing letters to targeted industry groups prior to each Wet season
- conducting inspections to assess compliance with the General Environmental Duty
- promptly responding to reports of discharge to stormwater drains and waterways in accordance with the NT EPA's 'Compliance and Enforcement Policy'.

During the 2019-2020 Wet season there were fewer reports of significant stormwater pollution events than previous years. This was partly due to less than average rainfall for the season and the ongoing campaign implemented by officers.

As noted in previous years, officers have again observed improvements in the measures taken by small builders to prevent pollution issues from their activities. During this same period, however, officers have responded to and investigated a number of significant stormwater issues at major road and infrastructure projects across the Top End.

Officers will continue to target a wide range of industries and activities with likely stormwater impacts throughout 2020-2021, with the aim of improving understanding and implementation of practices that improve water quality.

Improve the management of contaminated sites in the NT

The NT EPA has worked with government departments and private developers on a number of significant projects that have been impacted by the identification of historic land contamination. The types of contamination identified include asbestos, hydrocarbons, heavy metal, pesticides and Per- and poly-fluoroalkyl substances (PFAS).

Site investigations are undertaken in accordance with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (ASC NEPM) and the 'Northern Territory Contaminated Land Guideline'. This ensures the approach to site contamination is consistent with other jurisdictions and that the potential risks to human health and the environment are properly assessed and sites are remediated.

The extensive asbestos contamination is a result of the legacy following Cyclone Tracy and former poor disposal practices. The widespread contamination of asbestos across Darwin can impact significantly on both publically funded and private development projects.

Officers continue to work with project managers, contractors, specialist contaminated land consultants, and accredited contaminated site auditors to manage the risk of asbestos on project sites by recommending options for site specific remediation strategies including onsite containment. Onsite containment of contaminants in properly engineered cells, with independent auditor oversite, can be a safer and more cost effective option than excavation, transport and offsite disposal. Recent projects of note where remediation of significant volumes of asbestos contamination has been required include State Square car park, Marrara flood mitigation basin and the Marrara Rugby League redevelopment.

In some cases, instruments such as Pollution Abatement Notices issued under the WMPC Act are used to regulate the assessment and remediation of contaminated sites. These instruments and Contaminated Site Audit Statements are published on the NT EPA website.

In 2019-2020, the NT EPA commenced development of a Contaminated Sites Geodatabase. The Geodatabase will provide information on known and potential contaminated sites in a spatial format. It will be a valuable tool for planners, developers and regulators to inform land use decisions that is expected to be available early 2021-2022.

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

Through conducting transparent and consultative environmental impact assessments, the NT EPA advises the Minister about the potential impacts and risks of development proposals, and makes recommendations about the measures that should be adopted in approval conditions, to protect the environment.

In the past year the NT EPA examined 23 proposals and two variations to proposals that had previously been assessed. Of these 25 proposals, the NT EPA decided that environmental impact assessment was not required for 24 proposals, and one proposal required assessment at the level of an environmental impact statement, being the Fountain Head Gold Project, proposed by PNX Metals Limited (see Appendix 2).

During 2019-2020, the NT EPA prepared Terms of Reference for a total of four proposals that it had determined required assessment at the level of an environmental impact statement. This determination had been made prior to 1 July 2019 for three of these proposals. These proposals were:

- Fountain Head Gold Project (PNX Metals Limited) (decision made 2019-2020)
- Daly River Road Pyrolysis Plant Project (Mr Anthony Gurr and Ms Bao Huang) (decision made 2017-2018)
- Darwin Ship Lift and Marine Industries Project (NT Government) (decision made 2018-2019)
- Hayes Creek Project (PNX Metals Limited) (decision made 2018-2019).

The NT EPA issued Assessment Reports to the Minister for Environment and Natural Resources for the following proposals:

- Union Reefs Underground Mine (NT Mining Operations Pty Ltd)
- Toms Gully Underground Project (Primary Gold Limited)
- Jervois Base Metal Project (KGL Resources Limited).

CASE STUDY

Redesign to reduce impact – how an environmental impact assessment resulted in better outcomes for the environment

The NT EPA's assessment concluded that the proposal could be implemented to avoid significant or unacceptable environmental impacts, subject to implementation of its recommendations

In February 2020, the NT EPA completed its assessment of Primary Gold Limited's (the proponent) Toms Gully Underground Project (the proposal). The proponent proposes to conduct underground mining for gold at the existing Toms Gully Mine site, approximately 100 km south-east of Darwin. The site was previously mined between 1988 and 2011.

The NT EPA's assessment of the proposal showed there was potential for significant impact to land and water due to contamination from mining wastes; and that this could also significantly impact downstream aquatic ecosystems in the Mary River, which has social, economic and cultural values for Territorians.

The NT EPA's scrutiny of the environmental impacts that had the potential to arise as a result of the proposal resulted in the proponent altering the proposal to avoid and reduce the potential impacts and risks on the environment. The alterations changed the proposal from an open pit mine, accessing the ore from the existing water-filled Toms Gully pit, to an underground mine, with the development of a new boxcut and associated decline to access the ore body. This had two benefits. Firstly, it removed the need to completely dewater and treat 4 GL of poor quality water from the pit lake, thereby reducing potential impacts to the Mary River catchment from the discharge. Secondly, it provided for the subaqueous storage of all existing and future waste rock and tailings in the pit lake, reducing the surface sources and acid generating profile across the site.

The NT EPA identified that the final proposal (if implemented) still has the potential for impacts and risks to the environment and made 18 recommendations to further avoid and manage these. The NT EPA considered that the resumption of underground mining, water treatment, tailings upgrades, rehabilitation of existing mining infrastructure and subsequent closure, as proposed, has the potential to improve the existing conditions on site and reduce future risks to the environment, compared to the site being left in its current state. The NT EPA's assessment concluded that the proposal could be implemented to avoid significant or unacceptable environmental impacts, subject to implementation of its recommendations.

Objective 3: Promote effective waste management and waste minimisation strategies

Improve waste management and minimisation across the NT

The NT EPA has made significant progress in addressing key priorities and commitments in the 'Waste Management Strategy for the Northern Territory 2015-2022'.

A targeted risk-based approach to compliance with licences and approvals was undertaken. This included 25 compliance inspections on separate licensed sites, including landfills, aquaculture facilities, waste water treatment systems, LNG facilities, turf clubs, oil recyclers and various hazardous waste storage facilities.

An increased officer presence in the field has enabled officers to improve industry understanding of licence requirements, reporting and management of environmental impacts, such as those to surface and ground water from waste water discharges, and impacts to air quality. Compliance inspections have led to improvements in the operation of some premises, and enhanced requirements on others including more stringent monitoring of air and groundwater to assess performance.

The NT EPA worked closely with local councils to improve environmental management at urban and remote landfills to reduce the risk of environmental harm. This included strategic approaches with City of Darwin, Barkly Regional Council and Katherine Town Council to improve the management and monitoring of impacts to air, water and land. Areas identified for attention included the management of leachate, prevention and management of fire, improved segregation and management of hazardous waste, and closure planning and rehabilitation.

A risk-based approach to compliance on licensed sites was developed in 2019-2020. This has informed the drafting of an NT EPA Compliance Plan which will prioritise compliance effort according to risk in a strategic and consistent manner to improve environmental protection and the application of resources. The Compliance Plan will direct a targeted, risk-based compliance program on licensed sites in 2020-2021, with 20% of licensed sites to be subject to an environmental audit, and all high risk sites audited at least once throughout the year.

The NT EPA's electronic waste tracking system is nearing completion, with testing underway and implementation anticipated before the end of 2020. The waste tracking system has been built into the existing NT EPA Online platform to enable end to end visibility of wastes generated, reused, recycled or disposed of in the NT. All hazardous waste entering, leaving or moving within the NT will be required to be reported to the NT EPA via the online system. The system will not only assist the NT EPA to meet national and international hazardous waste reporting requirements, but will assist in tracking waste generated, reused and recycled in the NT and identify areas for improved environmental regulation.

CASE STUDY

Tracking hazardous waste

The NT EPA is implementing a range of measures to improve the management of hazardous waste in the NT. A targeted education and compliance program was implemented in 2019-2020 in collaboration with the waste and recycling industry of the NT. This program has seen significant improvement in the characterisation, tracking, recording and reporting of hazardous waste generated in the NT and transported interstate for reuse, recycling or disposal. This has enabled the NT EPA to identify and assess high risk areas and strengthen environmental regulation of high risk activities.

Assisted by funding from the NT Government, the NT EPA has developed an online waste tracking system. The system is currently undergoing final testing by industry prior to implementation in 2020-2021. The system integrates with the existing licensing system which is used by all licensed waste handlers (collectors, transporters, storage and disposal) in the NT.

The NTEPA will continue to build on its work to enhance the regulatory framework for hazardous waste in 2020-2021 through a broader roll out of the online waste tracking system to capture all hazardous waste movements within the NT.

Container Deposit Scheme

The Container Deposit Scheme (CDS) is a key initiative that helps reduce litter while increasing resource recovery and recycling across the NT. During 2019-2020 the NT EPA implemented recommendations from an independent review of the CDS in 2018. Activities included:

- Improving access to the CDS, particularly in regional and remote areas by issuing approvals for three new depots, including a new reverse vending machine in the Casuarina shopping precinct, and two remote depots: one in Wadeye and a mobile depot servicing nine communities in the East Arnhem Region.
- Improving data collection and reporting and associated compliance activities by implementing improved data quality checks of CDS approval holder return data, and timely follow-up on any anomalies. This has contributed to improvements in the timeliness and reliability of CDS data.

Since the NT introduced its CDS in 2012, five other states and territories have established container deposit schemes, and another two (Victoria and Western Australia) are establishing schemes. The NT EPA, through participation in meetings of the Heads of EPA as well as various national working groups, has been developing nationally consistent principles for regulating container deposit schemes, streamlining administrative requirements on industry and harmonising container deposit legislation. This work has built on the significant NT reform of its own CDS.

During 2019-2020, a total of 126 216 431 approved containers were sold in the NT, down 3.7% from 131 039 766 in the previous year. A total of 100 954 077 containers were redeemed at collection depots, 68.5% in Darwin and 31.5% in regional and remote localities (Figure 2).

This saw over $10 million in container deposit refunds issued to Territorians. Of the containers sold in the NT, 80% of containers were redeemed by depots during the financial year (Figure 3).

CDS coordinators continued to accept containers from collection depots throughout 2019-2020. Some CDS collection depot operators implemented local measures in response to COVID-19 to minimise the risk of exposure to the virus to their staff and customers. This is reflected in the reduced redemption rates in the first half of 2020.

To support the CDS, the NT EPA administered 1203 supply approvals, 22 collection depot approvals and four coordinator approvals in 2019-2020. Figure 4 displays the trend in CDS approvals from 2013.

Of the containers sold in the NT,

80%

of containers were redeemed by depots during the financial year

Figure 2: Quarterly redemption rates during 2019-2020

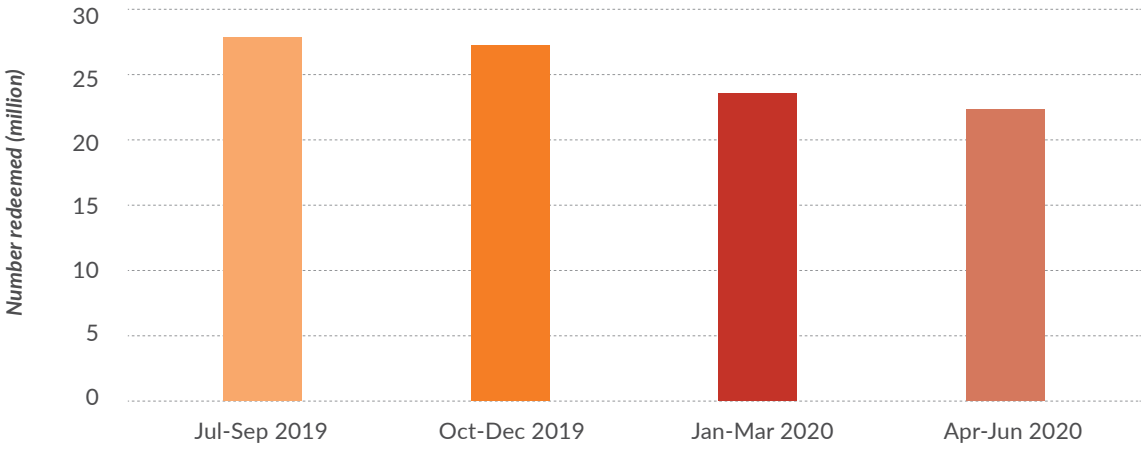


Figure 3: CDS return rates since 2012

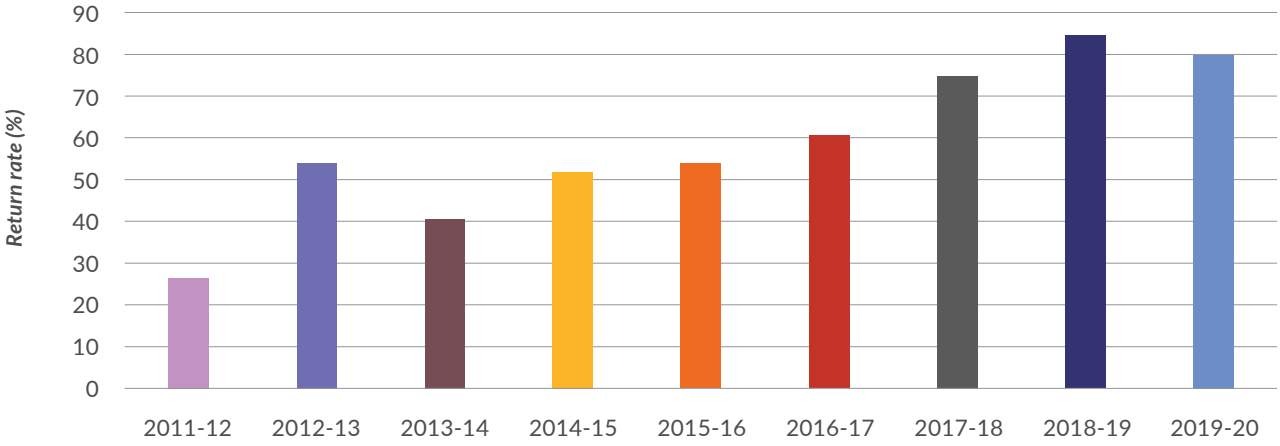
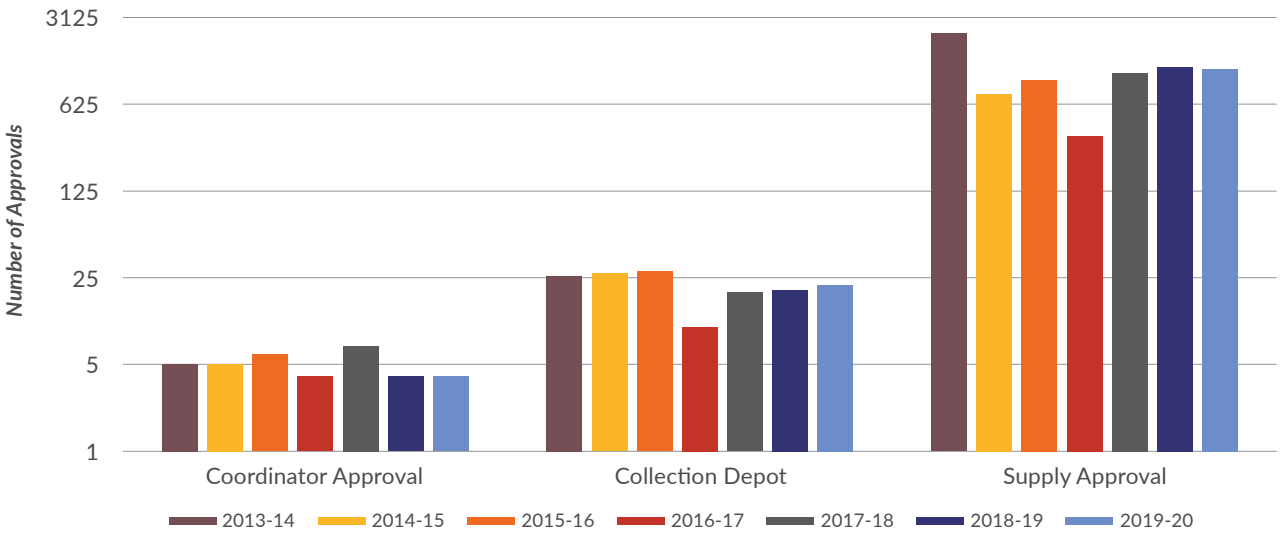


Figure 4: Trend in CDS approvals



Objective 4: Enhance community and business confidence in the environmental protection regime of the Territory

Improving understanding of the environmental impacts of petroleum activities

Since commencing its new responsibilities for providing advice to the Minister for Environment and Natural Resources about the environmental impacts and risks associated with proposed onshore petroleum activities in February 2019, the NT EPA has considered each onshore petroleum environmental management plan as a Notice of Intent (NOI) under the EA Act. This approach has provided an additional layer of independent scrutiny to the assessment of EMPs and enabled the NT EPA and DENR to gain experience in considering EMPs for assessment under the EA Act.

During this time, the NT EPA has made an assessment decision under the EA Act on nine EMPs, and on each occasion decided that the potential impacts and risks are not significant as to require environmental impact assessment. The NT EPA published its Statement of Reasons for each of these decisions to enhance transparency and public confidence about decisions made under the EA Act (Table 1).

EMP ACTIVITY TYPE	NUMBER
Civil construction works	3
Seismic surveys	1
Drilling (up to two wells per well pad)	2
Drilling, hydraulic fracturing and well testing (one well per well pad)	2
Hydraulic fracturing (up to two wells per well pad)	1

Table 1: Summary of EMP assessments completed for onshore petroleum EMPs (February 2019 - June 2020)

By considering EMPs under the EA Act, and examining the potential environmental impacts and risks associated with petroleum exploration activities, the NT EPA developed an informed position on when proposed onshore petroleum activities should be considered by or referred to the NT EPA under the new EP Act.

As a result, during 2020 the NT EPA reconsidered its approach and decided that in the future it will not automatically consider all EMPs as a referral under the EP Act. This will support the NT EPA to consistently apply the EP Act to petroleum activities in the same manner it applies the EP Act to all other types of proposals.

As with any proponent, petroleum interest holders will be required to self-assess their regulated activities to determine whether there is potential for significant impact on the environment and to demonstrate that the EMP does not require a referral under the EP Act. The NT EPA will continue to provide advice to the Minister on the acceptability of each EMP, and may also call in an EMP for referral if it believes it should have been referred under the EP Act.

Hydraulic fracturing flowback wastewater results to inform risk assessment

The NT EPA assessed and provided advice to the Minister on the Santos QNT Pty Ltd '2019 Hydraulic Fracturing Program Environment Management Plan' (EMP). Public comments received on the EMP raised concerns about the potential impact from hydraulic fracturing chemicals and loss of wastewater containment, including potential impacts to land and risks to fauna ingesting wastewater. The NT EPA recommended that the Minister apply a condition to the EMP approval requiring Santos to undertake and report on a risk assessment of the flowback wastewater from the hydraulic fracturing phase using sampling and analyses of the wastewater stored in enclosed tanks onsite. The objectives of the risk assessment were to:

- update the assessment of risks to fauna if wastewater was ingested
- assess the potential ecological risks to soil from a hypothetical spill or release of wastewater.

The Minister included the condition recommended by the NT EPA in her approval. In response, Santos provided a report that had been prepared by a suitably qualified independent toxicologist using samples from hydraulic fracturing activities undertaken in the Tanumbirini_1 well in November 2019.

The report found that flowback wastewater had a relatively low concentration of chlorides (~ 5,000 mg/L) and related salinity constituents compared to other reported hydraulic fracturing wastewater in producing fields in North America[1] (average 42,000 mg/L). All other constituents of potential concern specified in the 'Code of Practice: Onshore Petroleum Activities in the Northern Territory' (the Code) were at or below detection levels. The report also concluded there were no unacceptable risks to birds over a one year period of potential ingestion of the wastewater.

The report assessed the ecological risks from a hypothetical maximum release of 8 ML (resulting from a tank failure) of wastewater to soil within the bunded wastewater tank containment area. It concluded that no chemicals detected in the wastewater, under a hypothetical maximum release scenario, would be at levels above investigation levels outlined in the National Environment Protection (Assessment of Site Contamination) Measure 1999 for the protection of terrestrial plants and animals.

The report provides the NT EPA, community and industry with important data and information on the flowback wastewater quality, potential impacts to receptors from stored wastewater and ongoing management of wastewater on site, including wastewater recycling and final disposal requirements. The report is available on the DENR website.

1 Hayes, T. 2009. Sampling and Analysis of Water Streams Associated with the Development of Marcellus Shale Gas, Final Report, 31 December 2009.

The report also concluded there were no unacceptable risks to birds over a one year period of potential ingestion of the wastewater

Building community confidence through transparency

The NT EPA considers that one of the best ways to enhance community confidence in the NT's environmental management regime is to make information, including information about the NT EPA's decision making processes and outcomes, widely available.

The NT EPA maintains a number of public registers under the various legislation that it administers. These registers broadly contain the following types of information:

- environment protection approvals and environment protection licences granted by the NT EPA
- plans for environmental management provided to the NT EPA in accordance with a condition of an approval or a licence
- the outcomes of monitoring and reporting provided as a condition of an approval or licence
- compliance plans and performance agreements
- pollution abatement notices
- incidents of which the NT EPA is notified under section 14 of the WMPC Act (incidents causing or threatening to cause pollution)
- environmental audits
- qualified persons (auditors)
- environmental impact assessment decisions including proposals that do not require environmental impact assessment and the reasons for the decision.

Most of this information is available on the NT EPA's website, although some historical environmental impact assessment material may only be viewed by arranging a visit to the NT EPA office. During 2019-2020, the NT EPA commenced a project to redesign its website to improve access to the material that it publishes. The redesigned website will also assist the NT EPA to meet the additional transparency requirements contained in the EP Act, such as obligations to publish submissions on environmental impact assessment material. The new website is expected to be launched in early 2020-2021.

Consistent with this commitment to transparency, as discussed under 'Objective 2: Improve the management of contaminated sites in the NT', the NT EPA is also developing a Contaminated Sites Geodatabase to identify sites which are, or are potentially, contaminated. This database will be available for public interrogation from the new website.

Noise guidelines improve community understanding and produce better outcomes

The NT EPA is just one of many NT regulators permitting, approving, licensing and/or regulating activities with known or foreseeable noise impacts. In part as a response to increases in community and industry expectations and concerns, the NT EPA produced the 'Noise Management Framework Guideline' in late 2018. For the first time in the NT the Guideline provides comprehensive regulatory and technical coverage for noise problems and issues encountered in the NT. It provides key regulatory guidance and recommended standards for neighborhood noise, commercial and industrial noise, construction noise, entertainment venue noise and vibration and blasting. The Guideline also identifies the appropriate regulator for different sources of noise and provides detailed guidance on interventions that can be used to resolve noise conflicts.

Throughout 2019-2020, officers have drawn heavily on the Guideline, referring consultants, other regulators and the public to the timeframes and sound levels specified. Officers have been providing tailored and detailed planning application comments where development noise is likely to impact on the surrounding amenity and officers are now better able to require both specific and justifiable noise limits when issuing regulatory instruments to deal with issues.

Additionally, the Guidelines have been used to inform both proactive and reactive regulatory decisions by other departments and authorities when dealing with noise issues from the activities they have themselves licensed, including music events and licensed premises.

The Guideline has proven to be an effective tool when navigating what can be both complex and competing expectations and its clarity and approaches have been welcomed by officers, the public, and industry.

Coordinate response to PFAS in the NT

The NT EPA, in cooperation with the Department of the Chief Minister (DCM), has been leading the Per- and poly-fluoroalkyl substances (PFAS) response in the NT. PFAS are an emerging group of contaminants identified across Australia and worldwide, in particular the US and Europe. PFAS are a group of manufactured chemicals that are used in products that are resistant to heat, water and oil. Due to their heat resistant properties, and ability to form aqueous film forming foams, they have been used extensively in fire-fighting foam applications in Australia for decades.

A significant amount of research has been conducted into the health and ecological effects of these substances, and they are understood to be highly persistent within the environment, readily leachable from soils, and bio-accumulate up the food-chain.

The NT is a signatory to the 'Inter Government Agreement on PFAS' (IGA). The IGA establishes roles and responsibilities for a coordinated national response to PFAS contamination in the environment caused by historical use of these chemicals. It is supported by the 'PFAS National Environmental Management Plan' (PFAS NEMP), which documents nationally consistent environmental guidance and standards for managing PFAS. A revised version of the PFAS NEMP (version 2.0) was agreed by Heads of EPAs in October 2019 and endorsed by Environment Ministers.

The PFAS NEMP 2.0 provides new and revised guidance on four of the areas that were identified as urgent priorities in the first version of the PFAS NEMP:

1. environmental guideline values
2. soil reuse
3. wastewater management
4. on-site containment.

Work is currently underway for the PFAS NEMP 3.0 with the NT EPA providing input and advice where required. Participation in a variety of PFAS steering committees and working groups allows the NT EPA to be at the forefront of this environmental issue and provide input on a territory and national scale.

The PFAS NEMP 2.0 provides the basis for the NT EPA to provide advice to NT government agencies and industry stakeholders on the identification of potentially contaminated sites and the management of PFAS encountered during land development projects to determine which sites are potentially impacted by PFAS and, based on the results, further investigations that may be required to determine appropriate management measures.

The NT EPA has been actively working with the Department of Defence (Defence) to ensure appropriate investigation of Defence bases in the NT. Defence has completed PFAS investigations at RAAF Base Darwin, RAAF Base Tindal and Robertson Barracks. The next stages of the Defence PFAS works will involve the implementation of management plans, remediation strategies and ongoing monitoring at the Defence bases. Defence is keeping the NT EPA informed on works undertaken at these bases.

Increased resources have been provided to support the NT PFAS Investigation Strategy. These resources will enable the NT EPA to expand its investigation of sites potentially impacted by PFAS in 2020-2021, with a focus on priority sites based on their historical use and surrounding environmental sensitivities.

Work effectively with stakeholders and partners to improve environmental management

The NT EPA's engagement activities enable the NT EPA to gain a deeper understanding of those projects that it regulates and the proposals that it assesses. Engagement increases the NT EPA's awareness about how delivery of its regulatory responsibilities can impact project planning and delivery, the practical implications of the NT EPA's licensing conditions for regulated entities, and how the NT EPA's environmental impact assessment recommendations can be improved to facilitate their effective implementation by approving agencies and proponents to deliver the environmental outcomes expected in an ecologically sustainable development framework.

Engagement also enables the NT EPA to gain a better understanding of the issues, interests and environmental concerns of environmental and community stakeholders, and to be better informed about the economic, social and cultural impacts of proposed developments and regulated activities on the community and in particular Aboriginal communities.

As part of its meeting program, the NT EPA regularly meets with stakeholders and attends site visits to various proposals and development sites. During 2019, the NT EPA conducted the following site visits:

- Santos NT Pty Ltd – McArthur Basin Beetaloo Sub-Basin Tanumbirini.
- NT Mining Operations Ltd – Union Reefs North Underground Mine. This site visit increased the NT EPA's knowledge of the proposed underground mine's potential environmental impacts and risks and their proposed management and assisted the NT EPA to conduct its assessment of the proposed mine.

The NT EPA also met with the following organisations as part of its regular meeting schedule:

- Department of Infrastructure, Planning and Logistics – where the Department provided an overview of the NT's planning reforms.
- Department of Primary Industry and Resources – on the history of technical studies that have been undertaken over several decades at Rum Jungle. This allowed the NT EPA to understand in greater detail, the decision-making that informed the design of the current Rum Jungle Rehabilitation project.
- South Australia Environment Protection Authority – on a range of issues including contaminated sites management.
- Glencore – on the activities that it has completed in response to the NT EPA's Assessment Report 86 on the McArthur River Mine Overburden Management Project.
- ConocoPhillips - about its environmental management of air emissions and waste water discharged from the Darwin LNG facility since the grant of its EPL in 2017. This has enabled the NT EPA to provide guidance to ConocoPhillips regarding its ongoing monitoring of air emissions and waste water quality and to include enhanced thresholds for reporting and compliance in an amended environment protection licence. It has also informed proposals to undertake further studies in 2020-2021 to assess the cumulative impact of emissions from the Darwin LNG facility on the Darwin airshed.
- Australian Government Department of Industry, Innovation and Science.
- Origin Energy Limited – about proposed onshore gas exploration activities.
- Santos Limited – about proposed onshore gas exploration activities.

In addition, the Chairperson participated in the Environmental Management and Logistics Forum at NT Resources Week in early September 2019 and met with:

- the Minister for Environment and Natural Resources
- the Chief Executive Officer of the Department of Environment and Natural Resources
- the Chief Executive Officer of the Department of Trade Business and Innovation
- the Department of the Chief Minister
- the Chief Executive Officer of the City of Darwin
- the Association of Mining and Exploration Companies (AMEC)
- One Rail Australia formerly, Genesee and Wyoming Australia.

These meetings provide the Chairperson with additional opportunities to build understanding of the NT EPA's role, responsibilities and activities. For example, through his engagement with the City of Darwin and DENR, the Chairperson has been able to elaborate on the NT EPA's expectations regarding a holistic and strategic approach to managing impacts to surface and groundwater from leachate, as well as the need to improve environmental monitoring as part of the existing operation of the site and post closure at the Shoal Bay Waste Management Facility.

While the NT EPA Chairperson continued to conduct his individual engagement activities, the NT EPA's broader site visit and in-meeting engagement activities were interrupted during 2020 due to the COVID-19 pandemic. The NT EPA anticipates in-meeting engagement to recommence in 2020-2021 using video-conferencing facilities, and for site visits to recommence in 2021 as borders reopen.

Setting the standard in landfill management

The NT EPA's 'Guidelines for the Siting, Design and Management of Solid Waste Disposal Sites in the Northern Territory' was released in January 2013. This guideline has provided the basis for improvement in landfill management practices across the NT by applying them to the conditions in Environmental Protection Approvals and Environmental Protection Licences for landfills.

The Shoal Bay Waste Management Facility, operated by the City of Darwin, is an example of this improvement. Landfilling activities first began at Shoal Bay in 1987 and has progressed across five stages in that time. Stages 1 and 2 were unlined and leachate produced by the breakdown of waste has resulted in offsite run-off and localised contamination of groundwater.

Stage 3 was constructed in 2002 and Stage 4 was constructed in 2013. Both of these stages were designed and engineered with leachate collection and recovery systems. Whilst these systems have not fully met the design standards over the years, there is a noticeable improvement in environmental management of leachate. Performance improvement conditions of the Environment Protection Licence for this site will see increased groundwater, surface water and vegetation monitoring at the premises. Improvements to the interception and collection leachate system are also required by the licence.

Stage 5 was designed and constructed in 2017 in accordance with the guidelines. This was the first stage of the Shoal Bay Waste Management Facility to fully benefit from the guidelines where the principles and procedures were able to be considered from the beginning of the design and construction planning. Stage 5 has seen significant improvement on previous stages, with a groundwater interception system, low permeability lining with limits set by the guideline and a leachate collection system, all keyed in to the surrounding stages. Stage 5 was constructed in accordance with a construction quality assurance plan approved by the NT EPA and verified by an independent environmental auditor with relevant experience in landfill construction and management.

Construction of Stage 6 has recently begun, based closely on the success of Stage 5. It sets the benchmark for landfill construction in the NT. The NT EPA continues to work closely with City of Darwin to implement a long term, holistic and strategic approach to environmental management at the Shoal Bay Waste Management Facility that encompasses proposed construction and operation of future stages, ongoing environmental monitoring and performance improvement as well as planning and monitoring for closure.

Landfilling activities first began at Shoal Bay in 1987 and have progressed across five stages in that time

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

The NT EPA manages air quality in the NT (including odour) through licensing of facilities under the WMPC Act, assessing the potential impact of air emissions from proposed and existing projects, responding to air-quality-related pollution incidents and complaints and conducting continuous monitoring of air quality in the Darwin Region.

In 2019-2020, the NT EPA continued to maintain and operate a network of three ambient air quality monitoring stations in the Darwin region. The stations measure the concentrations of air pollutants including carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), sulfur dioxide (SO_2) and particulates (as PM_{10} and $PM_{2.5}$). The three air quality monitoring stations located at Palmerston, Winnellie and Stokes Hill measure and report air quality as required by the National Environment Protection (Ambient Air Quality) Measure (AAQ NEPM). The replacement of ageing instruments at two older stations, Palmerston and Winnellie, was delayed due to COVID-19, but this work is anticipated to be completed during 2020-2021.

The AAQ NEPM provides a nationally consistent framework for monitoring, reporting and assessment of ambient air quality in Australia. While the AAQ NEPM itself does not compel or direct pollution control measures, it provides guidelines on ambient air quality goals to be attained by Australian jurisdictions. The NT reports annually to the National Environment Protection Council (NEPC) on the implementation of the AAQ NEPM using data from the air quality monitoring network.

Measured air pollutant concentrations and meteorological data from the stations are available to the public in near real-time on the NT EPA website. Users can view current air quality and meteorological data or download historical data, and reports from the website. The NT EPA website also displays Air Quality Index (AQI) values for each of the stations. The AQI is an indication of how clean or polluted the air is in the area, and provides guidance on activities to be restricted or avoided during high pollution events.

Air quality in Darwin remains generally good, with the exception of high particle concentrations that occur during the Dry season. The graphs in Figures 5 to 7 show that during the Dry season of 2019-2020 there were several exceedances of the AAQ NEPM standards for PM_{10} and $PM_{2.5}$. For example, Palmerston station recorded 15 exceedances, Winnellie recorded 13 exceedances and Stokes Hill recorded 10 exceedances of the $PM_{2.5}$ one-day average standard. These exceedances have been attributed exclusively to smoke from controlled burning and wildfires. Concentrations of other measured air pollutants, CO, NO_2 and SO_2, remained low during the Dry and Wet seasons. Occasionally elevated levels of ozone occur during smoke events, but these levels rarely exceeded the AAQ NEPM standards for ozone.

Researchers from the University of Tasmania are conducting a desktop analysis for the Department of Health and the NT EPA on the trends and spatial distribution of the ambient concentrations of fine particles ($PM_{2.5}$) in air, and NT EPA is providing historical particulates data for the study. This report is expected to be delivered in 2020-2021 and the results will help determine the health impacts of bushfire smoke, supporting the development of appropriate policy responses by responsible NT government departments.

The NT EPA continued to coordinate the provision of data from industry to the National Pollutant Inventory (NPI). This included checking data for quality, accuracy and completeness. The NPI is a publicly accessible national database that provides the community, industry and government with information on the emission and transfer of 93 substances from industry, transport and commercial premises to air, land and water. The NT EPA implements NPI reporting in the NT under the Environment Protection (National Pollutant Inventory) Objective 2004. The latest emissions data (2018-2019) is available on the NPI website: 110 NT facilities reported their emissions.

This data identifies an NT facility amongst the top 10 benzene emitters in the nation. Consequently, further air monitoring is being undertaken to confirm the levels of benzene in the Darwin airshed. The results of this further monitoring will inform any response by the NT EPA.

Figure 5: Exceedances of Particulates (PM_{10} and $PM_{2.5}$) Standards at Palmerston AQMS (2019-2020)

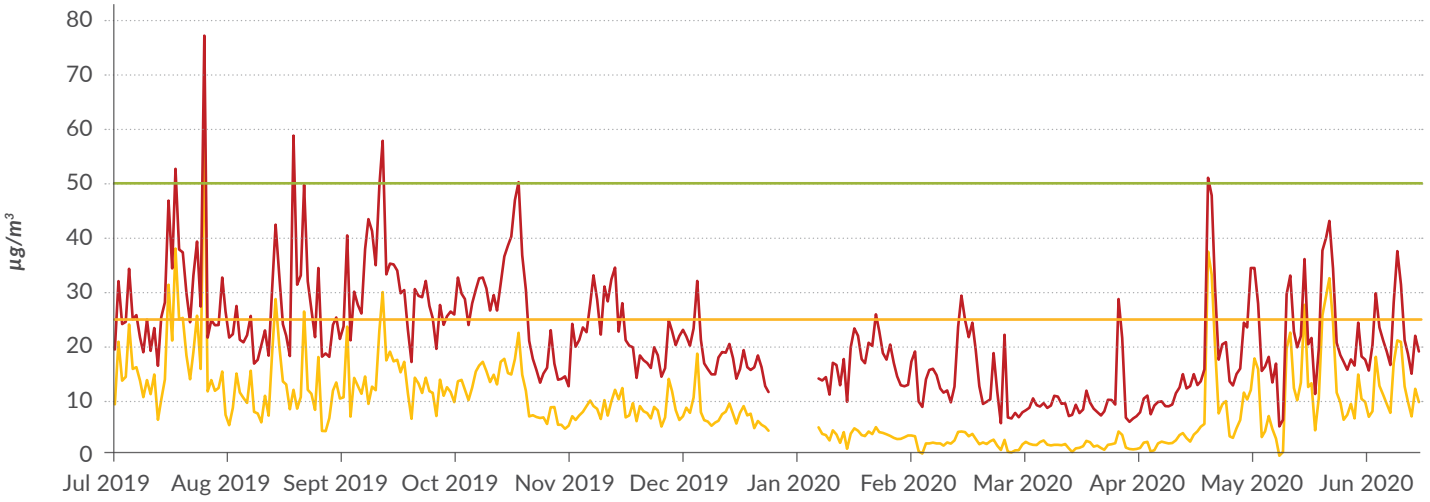


Figure 6: Exceedances of Particulates (PM_{10} and $PM_{2.5}$) Standards at Winnellie AQMS (2019-2020)

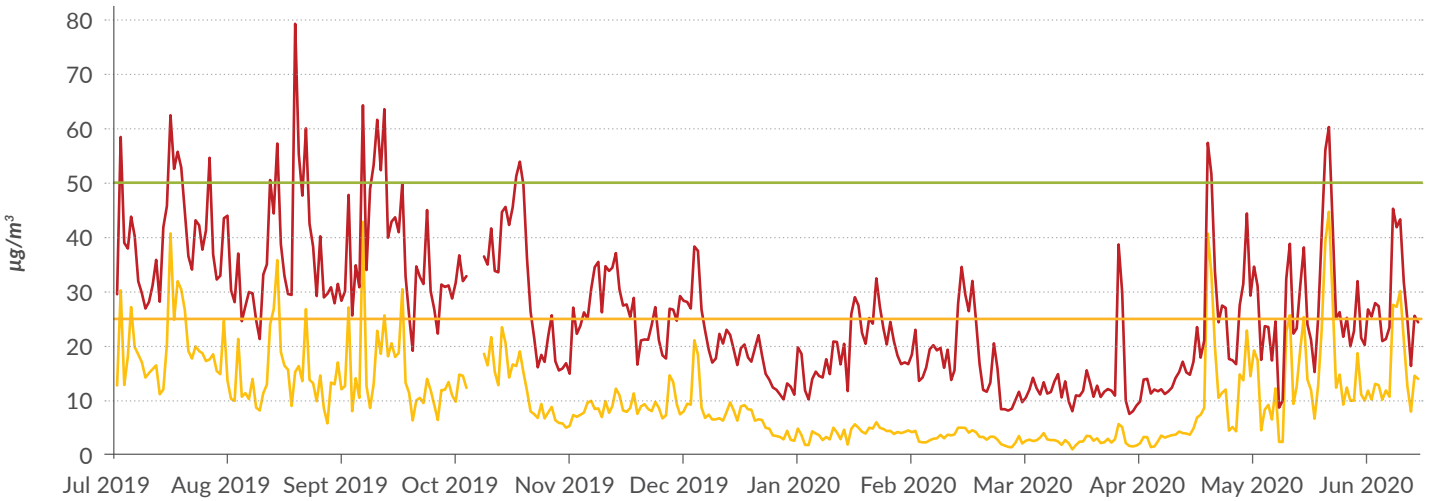
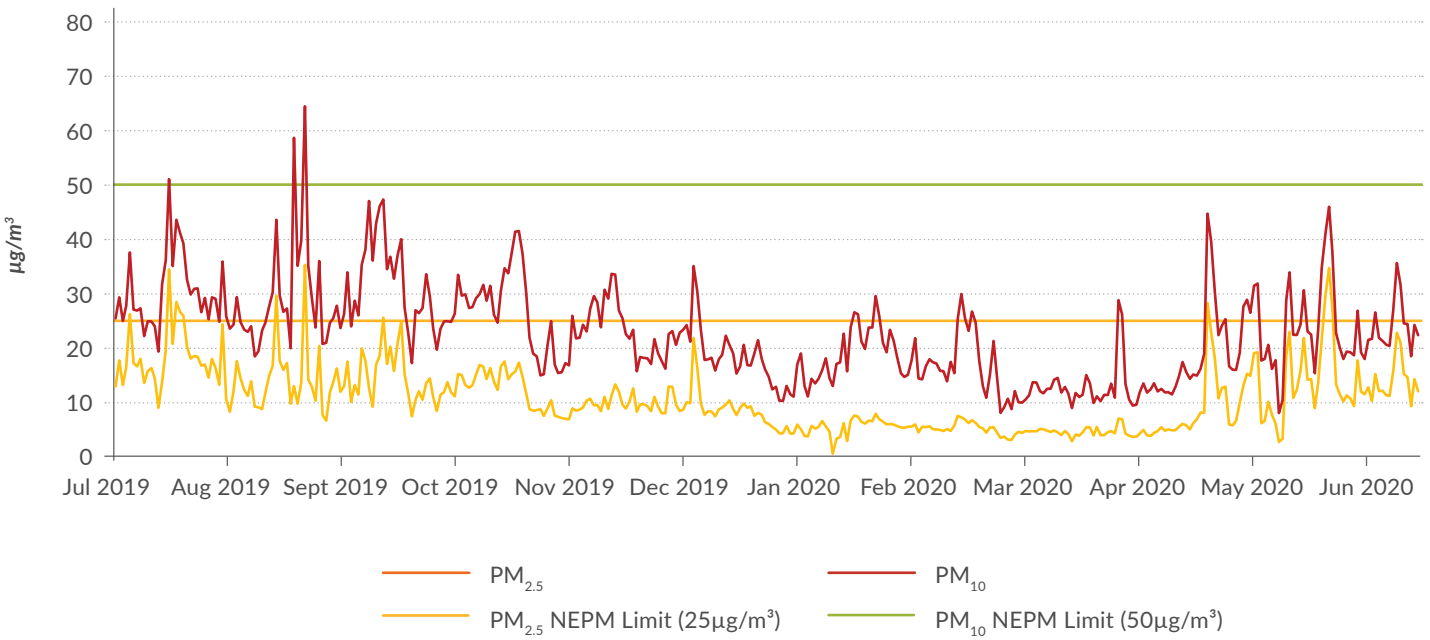


Figure 7: Exceedances of Particulates (PM_{10} and $PM_{2.5}$) Standards at Stokes Hill AQMS (2019-2020)



Protecting the air we breathe

The NT EPA is committed to maintaining good air quality while supporting the development of industry, by minimising emissions and their impact so that environmental values are protected in the Darwin Region.

The Darwin Region comprises diverse industries that cumulatively contribute to the air emissions within the Darwin Airshed. The Darwin Airshed includes Darwin City, Palmerston and Middle Arm.

During 2019-2020, the NT EPA worked collaboratively with industry, particularly the oil and gas sector, to improve its understanding of environmental impacts of emissions from LNG facilities. This collaborative approach has improved monitoring, analysis and regulation of air emissions, as well as recommendations on best practice environmental management systems. This work included a detailed analysis of the correlation between feed gas concentrations and air emissions, treatment methodology and operational controls.

The NT EPA and industry have developed a shared understanding of the interconnectivity of these factors and the need for environmental regulation to focus on expected environmental standards to ensure cumulative impacts of air emissions do not have adverse environmental outcomes.

The NT EPA will continue this work with industry in 2020-2021 to develop a Cumulative Air Emissions Impact Assessment focusing on the Darwin Airshed. This will require, as a first step, benchmarking the existing air quality by determining the assimilative capacity of the Darwin Airshed. The Cumulative Air Emissions Impact Assessment will inform future regulation to ensure protection of the environment.

CASE STUDY

Survey of AirRater use in the Darwin region

AirRater is a smartphone app, developed at the University of Tasmania (UTas), which aims to reduce the impacts of air pollution on public health. AirRater does this by providing members of the community access to real-time, locally specific information on air pollutants, fire locations and other environmental hazards (such as heat), to enable them to take appropriate action. The major air pollutant of concern for Darwin and Palmerston is particulate matter from bushfire smoke in the Dry season.

In February 2020, nine months after the AirRater was deployed in the greater Darwin region, an online user survey was conducted by the UTas AirRater team to evaluate the impact of poor air quality and extreme heat on app users' health and the utility of the AirRater in general.

The survey captured a broad range of user data including personal health conditions, health responses to poor air quality and extreme heat, impacts on productivity, as well as user experiences with the AirRater application. Ten per cent of registered AirRater users responded to the survey which found that poor air quality had a significant impact on respondents' health and productivity.

Perceptions of AirRater were predominantly highly positive, with over 70% of respondents stating the app was "extremely", "very" or "quite" useful. AirRater supported users to manage symptoms resulting from poor air quality – with 73% of respondents using the app to make health protection decisions (such as staying indoors, closing windows or taking preventative medication).

The results suggest that AirRater has reached and supported vulnerable populations to make informed decisions for health management in the face of environmental hazards, and that AirRater users have an improved awareness of environmental conditions. Importantly, the results also suggest that the app helps to promote useful behaviour change. The results also highlight the need to reduce the impacts of environmental hazards on public health in the NT.

Further details of the study can be obtained by contacting the AirRater team at air.rater@utas.edu.au.

Perceptions of AirRater were predominantly highly positive, with over 70% of respondents stating the app was "extremely", "very" or "quite" useful

Compliance and enforcement activities

The NT EPA continues to ensure that the environment is protected by maintaining a strong compliance and enforcement function. Activities that require attention are often reported by concerned members of the public. This community concern and support is crucial to enable officers to respond to unforeseen pollution events quickly and efficiently to ensure that environmental damage is minimised and that those responsible undertake clean up and remediation activities as soon as possible.

In addition to the response role, officers carry out proactive investigations and inspections of premises and activities with known or demonstrated potential for causing environmental harm, as well as monitoring licensed activities to ensure compliance with licence conditions.

On occasions where there is pollution, or the threat of pollution, officers may start investigations and/or apply a range of low level regulatory tools to ensure that the environment is protected. When investigating and applying these regulatory tools officers are guided by the NT EPA's Compliance and Enforcement Policy. In more serious cases, especially where there is the likelihood of a prosecution before the courts, matters will be elevated to the NT EPA for deliberation and decision making.

Tackling illegal dumping is an issue that remains a priority for the NT EPA. End of life tyres (waste tyres) are currently a growing issue and officers have detected and dealt with a significant number of unauthorised stockpiles and dumping of waste tyres over the past year.

One such incident was the reported deliberate dumping of waste tyres at a number of locations in Darwin's rural area. An investigation was launched and officers received considerable cooperation and assistance from other NT Government agencies, in particular the NT Police. In early 2020 the NT EPA laid criminal charges against a company, its sole director and an agent of the company with the case expected to come before the courts in late 2020.

The NT EPA has a number of other significant cases currently progressing towards or through the court system. While the prosecution of offenders is not the NT EPA's preferred primary enforcement option and can place a significant burden on its resources, the NT EPA remains committed to ensuring the protection of the environment by applying the level of enforcement that most appropriately reflects the nature of the incident and the environmental harm caused.

The vast majority of enforcement actions undertaken by officers are not taken to prosecution. The NT EPA's Compliance and Enforcement Policy provides officers with a clear framework to deal with environmental incidents and breaches of legislation using the most appropriate regulatory tool. Officers use these tools to achieve a satisfactory environmental outcome while sufficiently deterring any recurrence of the event or issue. Authorised Officer Directions, Penalty Infringement Notices and Pollution Abatement Notices remain the most common regulatory tools applied by NT EPA officers. There were 149 formal enforcement actions taken in 2019-2020, reflecting a 4% reduction on 2018-2019. Further information on the range of compliance and enforcement activities undertaken are provided in Appendix 4.

Unlicensed waste collector causes environmental harm and pays the penalty

In April 2018, large pools of oil on land to the rear of an industrial premises occupied by a painting and sandblasting company, Norblast Industrial Solutions Pty Ltd, was reported to the NT EPA Pollution Hotline by a member of the public. On attendance officers identified a number of dead and dying rainbow bee-eater birds in and around the oil and that a significant amount of oil and oily water had discharged from the premises. Officers required the company to put in place preventative measures and undertake clean up to limit further impacts on the environment. The investigation into the cause of the pollution identified a number of causative factors but critically that the company had been collecting, transporting and storing listed wastes without any form of licence for a number of years.

In early 2019 a total of 53 criminal charges were filed against the company, its sole director and an employee. On the first day of the hearing the defendants pleaded guilty to a range of offences, including intentionally causing material environmental harm, handling listed wastes without the required licence and obstructing Authorised Officers of the NT EPA. The court imposed combined penalties and costs of over $97,000 on the defendants. In summing up the judge stated that "the purpose of the environmental legislation is of the most fundamental importance. In a modern society it is not acceptable for people to have disregard for the safe disposal of waste".

This issue highlights how important community awareness and public reporting can be to identify and deal with pollution incidents, and that both industry and the public should check that any listed waste handlers they use are correctly licensed.

Pollution reporting and response

The NT EPA receives approximately 1000 pollution reports each year from the community and industry. The preferred methods for urgent reports are via the Pollution Hotline or direct email to the Environmental Operations Branch on pollution@nt.gov.au. These reporting mechanisms accounted for 56% of reports received in 2019-2020.

Officers are available to immediately respond to pollution reports. Protection of the environment is a priority when attending pollution incidents and officers will assess the potential impacts and impose measures to limit any environmental harm and commence clean up and remediation immediately. Officers have a range of equipment and methods that they use to obtain samples and gather evidence to inform them when issuing directions or notices for clean-up and remediation.

2019-2020 saw 992 pollution related reports to the NT EPA, which is the highest in recent years and an increase of 9% on 2018-2019. A large number of reports in 2019-2020 related to environmental nuisance matters that often have minimal impact on the natural environment but can have a significant impact on the amenity of the individual complainant. For example, over 22% of total reports made to the NT EPA in 2019-2020 were related to noise nuisance. Many of the noise reports related to construction activities and officers have undertaken considerable engagement with major developers to try to encourage them to achieve the expectations and standards set out in the Noise Management Framework Guideline from the outset of future projects.

Officers always encourage resolution of perceived environmental nuisance through dialogue and mediation between the parties and in certain cases, such as animal nuisance, will refer complainants to more appropriate authorities. When resolution fails, and where the NT EPA is the appropriate agency with primary responsibility for the matter at hand, officers will generally take some action, regulatory or otherwise to attempt to resolve the situation.

Section 14 of the WMPC Act requires that where an incident that occurs in the course of any activity and causes, or has the potential to cause, material or serious environmental harm, the incident must be reported to the NT EPA as soon as possible and at the latest within 24 hours. Officers will assess the details of any incident report and will often attend the incident to verify the details and ensure an appropriate response is mounted. Incidents reported under section 14 of the WMPC Act are made publically available on the NT EPA website. This allows all stakeholders to understand the types of incidents that may occur and the standards and expectations that apply in the NT. Section 14 notices received in 2019-2020 are listed in Appendix 4.

Illegal dumping – focusing on waste tyres

With only a few operators licensed to handle waste tyres and limited options for their reuse in the NT, officers have been responding to an increase in the scale and significance of illegal dumping and inappropriate reuse of waste tyres. With the Australian Government's restriction on the export of whole waste tyres from December 2021, this situation is expected to get worse.

In 2019-2020 officers investigated a range of tyre incidents, including: several high profile tyre fires; a small residential premises 'storing' thousands of waste tyres 'given' to them for free; the illegal commercial collection, storage and 'disposal' of tyres by several unlicensed companies and individuals; the burial of several thousand waste tyres on a single residential premises; and the improper use/re-use of large number of waste tyres in 'faux' construction projects, earthworks, agricultural uses, erosion and sediment control measures, dust walls, foundations etc.

In line with this increase in waste tyre incidents, there has also been an increase in the number of and types of enforcement actions being taken in this area, including prosecutions.

Unfortunately, some of these incidents have only come to the NT EPA's attention after one of the NT's many Dry season fires. The subsequent clean-up and remediation costs to the landowners have subsequently skyrocketed. At one incident, the land owner was directed by officers to rectify and clean-up the incident, which involved a significant amount of money to remediate the area.

Officers have been responding to an increase in the scale and significance of illegal dumping

Looking forward

Annual reports inform government and the community about the NT EPA's progress against each of its priorities, setting out the achievements and challenges of the previous year. Equally important to celebrating achievements and reviewing progress, is looking forward into the coming year to identify the NT EPA's priorities and the challenges and opportunities that are to come.

Each year in working to achieve its priorities, the NT EPA is conscious that it must be informed about community expectations and challenges. In 2019-2020 the NT EPA implemented an active and targeted program of stakeholder engagement. As we move through 2020, the NT EPA is aware that the priorities of the government, community and business are changing rapidly in response to the COVID-19 pandemic. Throughout 2020-2021 the NT EPA will continue to listen and adopt new forums for engagement to ensure it can continue to independently pursue the objectives of the EP Act in accordance with contemporary community expectations.

In March 2020, the NT EPA developed its first Statement of Intent as required under the NT EPA Act. The Statement outlines the NT EPA's priorities and associated activities for the period 2020-2022. The priorities and activities are intrinsically linked with, and relate to, the legislated objectives and functions of the NT EPA, and will be reported against in the 2020-2021 annual report.

Using the Statement of Intent as the NT EPA's guide for the year ahead, and being cognisant of the NT Government's priorities and challenges as the NT continues to navigate and develop plans to recover from the COVID-19 pandemic, the NT EPA will focus on streamlining the delivery of its regulatory responsibilities. The NT EPA is committed to meeting the timeframes contained in the EP Act and Regulations and will conduct risk-based and proportionate environmental impact assessments using the new tiers of assessment. It will also review its processes for issuing and amending environment protection approvals and environment protection licences with a view to streamlining and reducing timeframes associated with these processes where possible.

The development of guidance to support proponents and the community to understand and contribute effectively to the environmental impact assessment process remains a high priority for the NT EPA. Over 2020-2021, the NT EPA will focus its efforts on developing technical guidance to support proponents in preparing environmental impact assessment documentation. The technical guidelines will identify the NT EPA's expectations and requirements about the matters to be considered by proponents when addressing the NT EPA's environmental factors and objectives.

The NT EPA will focus its efforts on improving outcomes for mine planning, rehabilitation and closure within the environmental impact assessment process by preparing guidance that addresses common environmental issues associated with these activities. It will work with DENR, the Department of Primary Industry and Resources and other regulators and Government agencies to improve its understanding of how different NT regulatory processes work together and to streamline processes without compromising environmental outcomes.

Throughout the coming year, the NT EPA will be finalising its approach to meeting the requirements of the EP Act to consider the impacts of a changing climate in environmental impact assessments. The NT EPA anticipates releasing guidance early in 2020-2021 on how greenhouse gas emissions will be considered during assessment processes, and the NT EPA will continue to discuss the steps it can take to support the NT Government in achieving its policy objective of net zero emissions by 2050.

The NT EPA's Onshore Gas Committee (OGC) will continue to provide expert advice to the Minister and input into the development of guidance material to support development and assessment of environmental management plans (EMP). This will include finalising guidance to assist the petroleum industry and the community to understand when petroleum activities will require referral to the NT EPA in accordance with the EP Act. It is also anticipated that over the coming year, the OGC will support DENR in developing a standard set of EMP conditions to manage common environmental risks and impacts associated with different types of petroleum activities.

Continuing its advisory role, and in anticipation of the expiration of the NT Government's existing moratorium on seabed mining activities in the NT in early 2021, the NT EPA anticipates finalising advice to the Minister about seabed mining in the NT during 2020. This advice will inform the Minister about the actual or potential impacts on the environment and other resource industries associated with seabed mining, and methods for managing these impacts.

Looking to the delivery of its regulatory responsibilities and ensuring that the environment is protected from the impacts of wastes and pollution, the NT EPA will be collaborating with industry, DENR and the Department of Infrastructure, Planning and Logistics over 2020-2021 to conduct airshed modelling and develop an Air Emissions Inventory for the Darwin Region Airshed, incorporating Darwin and Palmerston. The work will focus on major air pollutants emitted from the most significant anthropogenic and natural emission sources within the Region. By determining temporal and spatial variations in ambient air pollutants levels in the Darwin Region Airshed, this work will provide a scientific basis to support improved cumulative air quality assessments for new industrial proposals in the region. In turn this will support improvements in the NT EPA's licensing decisions and the conditions imposed on licensees.

As discussed earlier in this report, the COVID-19 pandemic has disrupted the container deposit scheme, with many collection depots needing to close at various times. As a consequence, the NT EPA has revised the rollout of its community awareness program for the scheme and this will be revisited in 2020-2021 as depots reopen across the NT. The NT EPA will also continue to implement the recommendations of the 2018 review of the scheme, with a particular focus on streamlining the container approval process and other improvements to the regulatory framework.

Every year officers respond to a wide variety of complaints and pollution incidents. The NT EPA will continue this responsive compliance and enforcement activity, while placing a greater focus on proactive activities in 2020-2021 such as increasing its environmental auditing of licensed activities and leading investigations to identify and implement appropriate management responses for NT Government land contaminated with PFAS chemicals. The NT EPA will also develop and publish a revised Compliance Plan outlining its planned compliance and enforcement priorities over the coming year.

The delivery of regulatory reforms to the environmental impact assessment system by the NT Government during 2019-2020 was a great achievement. However more needs to be done – particularly to improve the management of wastes and pollution. In addition to advising on container deposit scheme reforms, the NT EPA looks forward to contributing its advice and expertise to improve the NT's broader environmental regulatory framework during 2020-2021.

Appendix 1: NT EPA membership

Dr Paul Vogel AM, NT EPA Chairperson

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 the chair of Western Australia's Environmental Protection Authority from 2007 to 2015.

Dr Vogel was also the inaugural Chief Executive and chair of the South Australian Environment Protection Authority from 2002 to 2007 and prior to that held senior executive positions in the WA departments of the Premier and Cabinet and Environmental Protection.

Dr Vogel has a PhD in chemistry from the University of WA and has 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 chair of the national Cooperative Research Centre on Contamination and Remediation of the Environment (CRC CARE), Chairperson of the WA Marine Science Institution, Deputy Chairperson of CRC TiME – CRC on Transformations in Mining Economies and a member of the Australia Institute of Company Directors. He was appointed to the NT EPA from 1 January 2016.

Ms Janice van Reyk

Ms Janice van Reyk is an experienced non-executive director on a number of boards in the infrastructure and utilities sector including Lochard Energy, Australian Naval Infrastructure, Citywide and Victorian Ports Corporation. She previously served on the Audit, Risk and Finance Committee 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, environmental and remediation issues. Together with her executive management and experience in industry she brings great depth to the NT EPA.

Ms van Reyk is a Fellow of the Australian Institute of Company Directors, a member of the Environment Institute of Australia and New Zealand and a Certified Practising Accountant. 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 Ian Wallis

Dr Ian Wallis brings 30 years' 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, and was a researcher at various Universities and laboratories in the UK and USA.

Dr Wallis has extensive experience in environmental assessments, air quality, water quality and oceanographic studies, and 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.

Mr Joe Woodward

Mr Joe Woodward brings more than 35 years' 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 management and regulation. As Deputy Director General of the NSW Department of Environment and Conservation he oversaw assessment and regulation 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 NSW Independent Planning Commission responsible for statutory assessments and determinations of state significant development proposals including mining, 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.

Ms Samantha Nunan

Ms Nunan is experienced in providing environmental regulatory and policy advice to industry and governments across multiple jurisdictions, including the NT. Working in industry for many years, Ms Nunan has significant experience in participating in regulatory reviews and reform processes, predominantly as an industry participant, but also during her time in government.

During her time as a practising lawyer, Ms Nunan provided advice to businesses and statutory bodies relating to compliance frameworks and responses to environmental regulatory investigations.

Ms Nunan has had extensive exposure to environmental assessment processes, securing project approvals and the application of regulatory policies and legislation across a range of different industries, including resources, renewables, waste, agriculture and planning. With this experience, Ms Nunan brings a good understanding of the existence of and the importance of overlapping interests in land and resources by various stakeholders including Traditional Owners, Government, Industry and broader communities.

Dr Rod Lukatelich

Dr Rod Lukatelich has a Bachelor of Science (Hons) and a PhD from the University of Western Australia.

Dr Lukatelich has 28 years oil and gas industry experience and is now semi-retired, working as an environmental consultant. He has extensive experience in environmental approvals and impact assessment, wastewater treatment, atmospheric emissions management and assessment and remediation of contaminated sites. Previously, Dr Lukatelich held an academic position at the University of WA where his research included studies on the impacts of eutrophication on algae and seagrasses in lakes and estuaries; development of ecological models; and the relationships between hydrodynamics and water quality in reservoirs, rivers and estuaries.

Dr Lukatelich has been a Board Director of the Cooperative Research Centre on Contamination and Remediation of the Environment since its inception in 2005; is a member of CSIRO Oceans and Atmosphere Strategic Advisory Committee; was Chairperson of the Great Australian Bight Research Program Management Committee and was a member of the Environmental Protection Authority of Western Australia between 2009 and 2014. Rod is a Director of Perth Racing; and is the Chairperson (interim) for the Cooperative Research Centre on the Blue Economy.

Dr Vaughan Beck

Dr Vaughan Beck, AM is a Fellow of the Australian Academy of Technological Sciences and Engineering and the Institution of Engineers, Australia. He was a member of the NT Scientific Inquiry into Hydraulic Fracturing in the Northern Territory, 2016-2018.

Dr Beck was recently Senior Advisor, Technical to the Australian Academy of Technological Sciences and Engineering (ATSE) and Executive Director – Technical, responsible for the Academy's research projects and the development of policy advice to government in energy, water, infrastructure, innovation, technology, technology and health, education and climate change. During his appointments with ATSE, Dr Beck was: Chairperson of the International Council of Academies of Engineering and Technological Sciences, Low Carbon Energy Group; Deputy Chairperson of the Australian Council of Learned Academies project report on Shale Gas; and Deputy Chairperson of the ATSE Unconventional Gas Conference and International Workshop.

Dr Beck has qualifications in mechanical engineering, structural engineering and fire safety and risk engineering. He was Visiting Professorial Fellow, Warren Centre of Advanced Engineering, University of Sydney and led the Fire Safety Systems project. He was appointed Professor and Director at the Centre for Environmental Safety and Risk Engineering at Victoria University and subsequently, Pro-Vice Chancellor (Research) at the University.

Dr David Ritchie, Chair of the NT Planning Commission (ex-officio member)

Dr David Ritchie has over 35 years' experience working for organisations responsible for heritage protection and land management, in a combination of professional, expert senior management and executive roles. This work includes extensive experience with statutory boards with roles under land rights, native title, and environment and heritage legislation. For more than twenty years he held Chief Executive roles, leading organisations responsible for land resource planning, remote service delivery, parks and wildlife, natural resource management, environment protection, Aboriginal policy, Aboriginal cultural heritage and museums, art galleries and archives.

Dr Ritchie's work has involved extensive field work in remote regions of the NT working closely with Aboriginal communities and developers on cultural heritage surveys for major infrastructure developments - ranging from gas pipelines and the North Australian Railway to mines, aquaculture and the newly created National Parks.

Dr Ritchie is a graduate of the Australian Institute of Company Directors and a Fellow of the Australian Anthropological Society. He is also a Director of Ninti One Limited, on the board of the Northern Territory Land Corporation and Chairperson of the Northern Territory Grants Commission.

NT EPA Onshore Gas Committee membership

- Mr Joe Woodward (Chair)
- Dr Vaughan Beck
- Dr Rod Lukatelich
- Dr Ian Wallis
- Ms Samantha Nunan

Appendix 2: Decisions made under the *Environmental Assessment Act 1982* in 2019-2020

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

PROPONENT	PROPOSAL	DATE OF DECISION
PNX Metals Limited	Fountain Head Gold Project	16 March 2020

Table 3: Decisions that assessment is not required

PROPONENT	PROPOSAL	DATE OF DECISION
Core Lithium Limited	Variation of Grants Lithium Project (14A)	26 June 2020
Berno Brothers Pty Ltd	Howard Lot 1 Sand Project	26 June 2020
Groote Eylandt Mining Company Pty Ltd	Southern Lease Stage 2 Exploration Program	26 June 2020
Tellus Holdings	Variation of Chandler Facility (14A)	25 June 2020
Mick Burns	Lambells Lagoon Crocodile Farm	25 June 2020
ConocoPhillips Pipeline Australia Pty Ltd	Darwin Liquefied Natural Gas Transition Work Program	6 May 2020
Sun Cable Pty Ltd	Middle Arm Battery Installation and Operation Project	1 May 2020
Department of Infrastructure, Planning and Logistics	Darwin Youth Justice Centre	10 April 2020
APT Pipelines (NT) Pty Ltd	Channel Island Bridge Pipeline Replacement Project	10 April 2020

PROPONENT	PROPOSAL	DATE OF DECISION
Department of Infrastructure, Planning and Logistics	Katherine Flood Mitigation Works	4 February 2020
Imperial Oil and Gas Pty Ltd	Environment Management Plan for 2020 Drilling Program Exploration Permit EP187	6 January 2020
Gold Valley Energy Pty Ltd	Kittyhawk Micro LNG Project	19 December 2019
Origin Energy B2 Pty Ltd	Environment Management Plan for the Beetaloo	
Sub-basin Velkerri Drilling, Hydraulic Fracturing and Well Testing, Exploration Permit 76	18 December 2019	
Department of Infrastructure Planning and Logistics	Katherine Logistics and Agribusiness Hub	1 November 2019
Central Agri Group	Batchelor Abattoir	25 October 2019
Santos QNT Ltd Ptd	Environment Management Plan for the McArthur Basin 2019-2020 Hydraulic Fracturing Program Exploration Permit 161	15 October 2019
Equatorial Launch Australia	Arnhem Space Centre	14 October 2019
Imperial Oil and Gas Pty Ltd	Environment Management Plan for 2D Seismic Work Program. Exploration Permit 187	11 September 2019
Origin Energy Limited	Environment Management Plan for Beetaloo Basin Velkerri, Exploration Permit Exploration Permit 76 S2, Civil Construction	5 September 2019
Rio Tinto Aluminum Pty Ltd	Borrow Area Development Project	27 August 2019
Tellus Holdings Limited	Intermodal Transit Station at Brewer Industrial Estate	15 August 2019
Origin Energy Limited	Environment Management Plan for Kyalla Drilling, Stimulation and Well Testing Exploration Permit 117	7 August 2019
Groote Eylandt Mining Company Pty Ltd	Southern Lease Stage 1 Exploration Project	24 July 2019
Santos QNT Pty Ltd	Environment Management Plan for McArthur Basin drilling program NT Exploration Permit Exploration Permit 161	12 July 2019

Appendix 3: Licences and approvals issued in 2019-2020

Table 4: Environment protection approvals (EPAs) issued under the WMPC Act

ISSUED TO	ACTIVITY	DATE APPROVED
City of Darwin	Stage 6 Cell Construction Project	11 July 2019
J.J. Richards & Sons Pty Ltd	Alice Springs depot and storage facility	4 December 2019

Table 5: New environment protection licences (EPLs) issued under the WMPC Act

ISSUED TO	ACTIVITY	DATE APPROVED
City of Darwin	Stage 6 Cell Construction Project	11 July 2019
Darwin Toilet Hire Pty Ltd	Transport of sewage	29 August 2019
NT Hauliers Pty Ltd	Transport of various wastes	11 February 2020
J.J. Richards & Sons Pty Ltd	Storage of various wastes	7 April 2020
Neil Mansell Transport Pty. Limited	Transport of liquid waste	23 June 2020
Covet (NT) Pty Ltd	Transport and storage of tyres	8 August 2019
Bradshaw & Timber Creek Contracting & Resource Co Pty Ltd	Transport of liquid waste	8 August 2019
Mcmahon Services Australia (NT) Pty Ltd	Transport of various wastes	12 August 2019
Tasmanian Seafoods Pty Ltd	Aquaculture	29 August 2019
Brydaw Pty Ltd	Transport of asbestos	29 August 2019
Litchfield Council	Transfer station	31 October 2019
Litchfield Council	Transfer station	28 November 2019
Graham Rust Building Services	Transport of asbestos	12 September 2019
Barkly Regional Council	Landfill	8 November 2019
Rum Jungle Meat Exports Pty Ltd	Abattoir	23 June 2020
Paspaley Pearling Company Pty Limited	Aquaculture	24 June 2020
The Jf Jolly & Sons Trust	Transport of various wastes	15 November 2019
The Trustee For C Kantros Family Trust	Transport of asbestos and sewage	23 June 2020
F & A Scarcella Pty Ltd	Transport of various wastes	28 November 2019
B.I.G. Carpentry Pty Ltd	Transport of asbestos	17 January 2020
Gemco Mining Pty Ltd	Landfill	11 February 2020
Alawa Plumbing Pty Ltd	Transport of liquid waste	6 April 2020
Sda & Co. Pty Limited	Transport of asbestos and sewage	25 June 2020
Consort Civil Pty Ltd	Transport of asbestos and sewage	25 February 2020

ISSUED TO	ACTIVITY	DATE APPROVED
Cahill Transport Australia Pty Ltd	Transport of pharmaceutical waste	13 March 2020
Dkb Comms Pty Ltd	Transport of asbestos	30 March 2020
Harris, Scott Leslie	Transport and storage of waste oil and hydrocarbons	7 April 2020
Bruce Stapledon	Transport of liquid waste	30 April 2020
Porosus Pty Ltd	Crocodile farm	30 April 2020
The Trustee for Clark Family Trust	Transport of sewage	1 June 2020

Table 6: Decisions under section 30(6) of the WMPC Act – EPL or EPA not required

APPLICANT BUSINESS NAME	ACTIVITY	DATE OF DETERMINATION
Humpty Doo Barramundi Pty Ltd	Aquaculture	20 September 2019
City of Darwin	Leachate Treatment Trial	18 February 2020

Table 7: Decisions under section 43 of the WMPC Act – EPL or EPA surrendered

ISSUED TO	ACTIVITY	DATE OF DETERMINATION
Breakthrough NQ Pty Ltd	Transport of various waste	3 August 2019
Telecom Tim Pty Ltd	Asbestos transport	18 July 2019
Central Desert Regional Council	Asbestos disposal	27 February 2020
Territory Vulcanizing Pty Ltd	Tyre shredding	30 August 2019
MacDonnell Regional Council	Asbestos disposal	22 July 2019
Civmec Construction & Engineering Pty Ltd	Transport and storage of various listed wastes	18 June 2020

Appendix 4: Compliance and enforcement activities in 2019-2020

Table 8: Entities issued with penalty infringement notices

DATE ISSUED	ENTITY
5 July 2019	Cleanaway Operations Pty Ltd
10 July 2019	Thien Long Trinh
23 July 2019	K and S Corporation Limited
23 July 2019	K and S Freighters Pty Ltd
2 August 2019	Halikos Pty Ltd
2 August 2019	Halikos Pty Ltd
27 August 2019	Meales Concrete Pumping Darwin Pty Ltd
27 August 2019	Meales Concrete Pumping Darwin Pty Ltd
4 September 2019	INPEX Operations Australia Pty Ltd
4 September 2019	INPEX Operations Australia Pty Ltd
4 September 2019	INPEX Operations Australia Pty Ltd
4 September 2019	INPEX Operations Australia Pty Ltd
9 September 2019	Alice Springs Town Council
19 September 2019	Bishdun Pty Ltd TA Nighthawk Transport
19 September 2019	Bishdun Pty Ltd TA Nighthawk Transport
23 September 2019	Dendeamer Nominees Pty Ltd
26 September 2019	Meales Concrete Pumping Darwin Pty Ltd
26 September 2019	Meales Concrete Pumping Darwin Pty Ltd
26 September 2019	Meales Concrete Pumping Darwin Pty Ltd
26 September 2019	Meales Concrete Pumping Darwin Pty Ltd
26 September 2019	Meales Concrete Pumping Darwin Pty Ltd
26 September 2019	Meales Concrete Pumping Darwin Pty Ltd
26 September 2019	Meales Concrete Pumping Darwin Pty Ltd
26 September 2019	Meales Concrete Pumping Darwin Pty Ltd
26 September 2019	Meales Concrete Pumping Darwin Pty Ltd
26 September 2019	Meales Concrete Pumping Darwin Pty Ltd
7 October 2019	Humpty Doo Developments Pty Ltd
7 October 2019	Humpty Doo Developments Pty Ltd
7 October 2019	Katherine Tree Maintenance Pty Ltd
7 October 2019	Katherine Tree Maintenance Pty Ltd
7 October 2019	Katherine Tree Maintenance Pty Ltd
7 October 2019	Katherine Tree Maintenance Pty Ltd
7 October 2019	Katherine Tree Maintenance Pty Ltd

DATE ISSUED	ENTITY
7 October 2019	Katherine Tree Maintenance Pty Ltd
7 October 2019	Katherine Tree Maintenance Pty Ltd
7 October 2019	Katherine Tree Maintenance Pty Ltd
7 October 2019	Katherine Tree Maintenance Pty Ltd
7 October 2019	Flame Control Industries Pty Ltd
18 October 2019	Nationwide News Pty Ltd
25 October 2019	Jetstream Electrical Pty Ltd
2 December 2019	Saleem Naser
18 December 2019	Kalidonis NT Pty LTtd
18 December 2019	Allan King & Sons Construction Pty Ltd
23 December 2019	AZAAD Pty Ltd
23 December 2019	Mr Prabhjeet Bhullar
10 February 2020	Duratec Australia Pty Ltd
21 February 2020	Akron Group NT Pty Ltd
21 February 2020	Akron Group NT Pty Ltd
21 February 2020	Akron Group NT Pty Ltd
21 February 2020	Akron Group NT Pty Ltd
21 February 2020	Akron Group NT Pty Ltd
21 February 2020	George Vordohilas
21 February 2020	George Vordohilas
21 February 2020	George Vordohilas
21 February 2020	George Vordohilas
21 February 2020	George Vordohilas
24 March 2020	Bishdun Pty Ltd T/A Nighthawk Transport
24 March 2020	Malcolm Bishop
24 March 2020	Jocelyn Dunning
24 March 2020	Wayoutback Australian Safaris Pty Ltd
24 March 2020	Donald Wait
24 March 2020	Northern Cement Limited
24 March 2020	Sage Constructions Pty Ltd
28 April 2020	VTG Waste and Recycling Pty Ltd
30 April 2020	Sunbuild Pty Ltd
30 April 2020	Sunbuild Pty Ltd
30 April 2020	Neil Fred Sunners
30 April 2020	Neil Fred Sunners
1 May 2020	JMST Pty Ltd

DATE ISSUED	ENTITY
1 May 2020	JMST Pty Ltd
1 May 2020	JMST Pty Ltd
1 May 2020	JMST Pty Ltd
1 May 2020	JMST Pty Ltd
1 May 2020	JMST Pty Ltd
1 May 2020	JMST Pty Ltd
9 June 2020	Ostojic Group Pty Ltd

Table 9: Prosecutions

DATE	DEFENDANT	OFFENCES	PENALTY $
10 February 2020	Samuel Cunnah	Section 83(3) – Intentionally causing material environmental harm	$23,870 penalty $5000 costs $150 victim levy
10 February 2020	Todd McCourt	Section 83(3) – Intentionally causing material environmental harm Section 83(6) – Intentional inappropriate storage of waste Section 30(3) – Conduct activity without the appropriate EPL Section 76(a) – Obstructing authorised officers	$23,560 penalty $600 victim levy
10 February 2020	Norblast Industrial Solutions Pty Ltd	S30(3) – Conduct activity without the appropriate EPL	$38,500 penalty $4053 costs $2000 victim levy

Table 10: Section 14 notices received

NOTICE	LOCATION
Power and Water Corporation Date: 11 June 2020 Report: Sewer pump station overflow	140 Robinson Road, Borroloola Lot 806 Town of Borroloola
Coomalie Community Government Council Date: 10 May 2020 Report: Green waste fire Adelaide River Landfill	90 Dorat Road, Adelaide River Lot 160 Town of Adelaide River
Power and Water Corporation Date: 7 May 2020 Report: Discharge of raw sewage from sewage network	55 Woodroffe Ave, Woodroffe, Palmerston Lot4429 Town of Palmerston
Power and Water Corporation Date: 5 May 2020 Report: Discharge of raw sewage	41 Buchanan Terrace, Nakara Lot 5475 Town of Nightcliff
Coomalie Community Government Council Date: 4 May 2020 Report: Fire at Adelaide River Waste Facility	90 Dorat Road, Adelaide River Lot 160 Town of Adelaide River
Coomalie Community Government Council Date: 25 April 2020 Report: Waste bin fire at the Adelaide River Waste Facility	90 Dorat Road, Adelaide River Lot 160 Town of Adelaide River
Coomalie Community Government Council Date: 20 April 2020 Report: Fire in green waste and an attempt to burn the steel bay	90 Dorat Road, Adelaide River Lot 160 Town of Adelaide River
Power and Water Corporation Date: 14 April 2020 Report: Discharge of raw sewage from sewage network	412 Stuart Highway, Johnston Lot 4249 Town of Palmerston
Power and Water Corporation Date: 10 April 2020 Report: Discharge of raw sewage from sewage network	26 Lorna Lim Tce Driver Lot4427 Town of Palmerston
Power and Water Corporation Date: 7 April 2020 Report: Discharge of oil from leaking power transformer	86 Cavenagh Street, Darwin City Lot 1366 Town of Darwin
NT Link Date: 8 April 2020 Report: Diesel Spill on Stuart Highway	19910 Stuart Highway, Ghan Lot 3351 NT Portion (000)
Power and Water Corporation Date: 19 March 2020 Report: Discharge of raw sewage from sewerage network	67 Wellington Parade, Alawa Lot 2308 Town of Nightcliff
Power and Water Corporation Date: 10 March 2020 Report: Discharge of diluted sewage from sewage network	60 Progress Drive, Nightcliff Lot 4704 Town of Nightcliff

NOTICE	LOCATION
Power and Water Corporation Date: 09 March 2020 Report: Discharge of diluted sewage from sewage network	18 Ludmilla Terrace, Ludmilla 4 Fulton Place, Millner 11 Carrington Street, Millner 4 Millner Place, Millner Cnr of East Point Road and Gregory Street, Fannie Bay Corner of Lampe Street and Knight Street, Fannie Bay 5 Roberts Place, Millner 78 Ryland Road, Rapid Creek 194 Casuarina Drive, Nightcliff Cnr Rapid Creek Road and Trower Road, Rapid Creek 4 Britomart Road, Alawa 24 East Point Road, Fannie Bay Sewer Pump Station Coconut Grove Sewer Pump Station Rapid Creek Sewer Pump Station Lakeside Drive, Sewer Pump Station Palmerston Park
Power and Water Corporation Date: 7 March 2020 Report: Spillage of bulk zinc-lead concentrate on the Carpentaria Highway roadside	Carpentaria Highway GPS coordinates: MGA Zone 53 (GDA94) Easting 631,542; Northing 8,218,585
Power and Water Corporation Date: 07 March 2020 Report: Discharge of diluted sewage from sewage network	Botanical Gardens and Ludmilla Sewer Pump Station Botanical Gardens, Sewer Pump Station Ludmilla
Power and Water Corporation Date: 25 February 2020 Report: Discharge of sewage from manhole cover	40 Essington Avenue Gray Lot 5983 Town of Palmerston
Kalidonis NT Pty LTD Date: 15 February 2020 Report: Possible discharge of fuel into water from submerged excavator	0 Maningrida Lot 396 Townsite of Maningrida
McArthur River Mining Pty Ltd Date: 5 February 2020 Report: Discharge approximately 20kg of bulk zinc-lead concentrate from road train on Carpentaria Highway	Carpentaria Highway
Power and Water Corporation Date: 3 February 2020 Report: Discharge of raw sewage from sewerage network	Lot 17 Townsite of Gunyangara Administrative Lot 00017 Townsite of Gunyangara
Power and Water Corporation Date: 1 February 2020 Report: Discharge of Raw Sewage from sewerage network	8 Lucy Court, Driver Lot 04398 Town of Palmerston
NT Port and Marine Date: 22 January 2020 Report: Discharge of sediment laden water	0 Tiwi Islands NT Portion 7466
Power and Water Corporation Date: 22 January 2020 Report: Discharge of sewage from burst sewer rising main	214 Victoria Highway, Katherine Lot 2975 Town of Katherine

NOTICE	LOCATION
Power and Water Corporation Date: 22 January 2020 Report: Discharge of highly diluted sewage from sewerage network due to wet weather / monsoonal conditions	15 different locations across the NT Section 3299 Hundred of Bagot
GEMCO Pty Ltd Date: 29 January 2020 Report: Stormwater overflow from Alyangula port stockpile facility to Milner Bay	N.T. Portion 01031 plan(s) A 000497
GEMCO Pty Ltd Date: 20 January 2020 Report: Stormwater overflow from Alyangula port stockpile facility to Milner Bay	N.T. Portion 01031 plan(s) A 000497
Puma Energy Date: 17 January 2020 Report: Overflow from septic tank – non solid waste	687 Stuart Highway, Knuckey Lagoon
Power and Water Corporation Date: 10 January 2020 Report: Discharge of diluted sewage from 2 manholes at corner of Gregory St and East Point Road	(Outside Western boundary of) 42 East Point Road, Fanny Bay. Lot 2561, Town of Darwin
Power and Water Corporation Date: 10 January 2020 Report: Discharge of raw sewage from relief overflow valve in sewerage network	(Outside boundary of) 24 East Point Road, Fanny Bay. Lot 2561, Town of Darwin
Power and Water Corporation Date: 8 January 2020 Report: Discharge of raw sewage from sewerage network	80 Mitchell St, Darwin Lot 07084 Town of Darwin
ASCO Date: 7 January 2019 Report: Hydrocarbon Spill Entered Stormwater	51 O'Sullivan Circuit, East Arm, NT, 0822 Section 05669, Hundred of Bagot
Power and Water Corporation Date: 26 December 2019 Report: Raw Sewage discharge from sewerage network to land	13 Tingarri Street, Kintore Lot 42 Town of Darwin
Power and Water Corporation Date: 17 December 2019 Report: Oil leak from transformer bund at the Sadadeen Complex, Alice Springs	25 Berger Court, Sadadeen Lot 4220 Town of Alice Springs
Power and Water Corporation Date: 17 December 2019 Report: Discharge of raw sewage from sewerage network (manhole)	Radford Road, Zuccoli Lot 12448 Town of Palmerston
Power and Water Corporation Date: 28 November 2019 Report: Discharge of raw sewage from sewage network	Outside southern boundary of 57 Benison Road, Winnellie Outside southern boundary of Sec 5472, Hundred of Bagot

NOTICE	LOCATION
Sea Swift Pty Ltd Date: 25 November 2019 Report: Diesel Discharge to Marine Berth	10 Frances Bay Drive, Darwin City Lot 5500 Town of Darwin
Power and Water Corporation Date: 19 November 2019 Report: Illegal Dumping of waste – some suspected asbestos	605 Peacock Road, Darwin River Sec694, Hundred of Cavenagh
Power and Water Corporation Date: 18 November 2019 Report: Oil leak from power transformers	15 Iliffe St, Woolner Lot 5378, Town of Darwin
Paspaley Pearls Properties Pty Ltd Date: 17 November 2019 Report: Diesel Spill to Land	399 Harold Knowles Road, Point Stuart NT Portions 4458 and 2708 Town of Darwin
Power and Water Corporation Date: 11 November 2019 Report: Discharge of raw sewage from sewerage network	11 Nation Crescent, Coconut Grove Lot 7219 Town of Nightcliff
Puma Energy Date: 6 November 2019 Report: Discharge of septic tank to environment	687 Stuart Highway, Knuckey Lagoon
Power and Water Corporation Date: 6 November 2019 Report: Discharge of raw sewage from sewerage network	4 and 6 Harney Street, Ludmilla Lots 4535 and 4536 Town of Darwin
Power and Water Corporation Date: 6 November 2019 Report: Discharge of treated effluent from treatment ponds	Angurugu, Groote Eylandt Lot 06902 NT Portion 000
Power and Water Corporation Date: 6 November 2019 Report: Discharge of raw sewage	Prowse Court, Malak Lot 2004 Town of Sanderson
Power and Water Corporation Date: 4 November 2019 Report: Discharge of raw sewage	Lakeside Drive, Alawa Lot 9375 Town of Nightcliff
Power and Water Corporation Date: 4 November 2019 Report: Discharge of raw sewage	21 Lakeside Drive, Alawa Lot 9075 Town of Nightcliff
Power and Water Corporation Date: 1 November 2019 Report: Discharge of raw sewage	55 Mitchell Street, Darwin Lot 2280 Town of Darwin
Power and Water Corporation Date: 28 October 2019 Report: Umbakumba power station diesel fuel leak	Lot 130 Townsite of Umbakumba
Power and Water Corporation Date: 18 October 2019 Report: Discharge of raw sewage from sewerage network	Corner of Lakeside Drive and Trower Road, Alawa Lot 9075 Town of Nightcliff

NOTICE	LOCATION
Power and Water Corporation Date: 18 October 2019 Report: Discharge of raw sewage from sewerage network	780 Berrimah Road, East Arm Lot 5719 Hundred of Bagot
Power and Water Corporation Date: 25 September 2019 Report: Discharge of raw sewage from sewerage network	4 Muzzell Street, Bayview Lot 6310 Town of Darwin
Power and Water Corporation Date: 23 September 2019 Report: Discharge of raw sewage from sewerage network	245 Stuart Highway, Kilgariff Lot 245 Town of Alice Springs
Power and Water Corporation Date: 19 September 2019 Report: Discharge of raw sewage from sewerage network	34 Bagot Road, The Narrows Lot 3619 Town of Darwin
Nhulunbuy Corporation Date: 19 September 2019 Report: Effluent Discharge	1211 Melville Bar Road, Nhulunbuy NT Portion 1192
Power and Water Corporation Date: 27 August 2019 Report: Discharge of oil from power network (transformer)	(Outside northern boundary of) 6 Fitzmaurice Drive, Leanyer Lot 6831 Town of Sanderson
Alice Springs Town Council Date: 13 August 2019 Report: Discharge of bitumen emulsion to the environment	15 Ross Highway, Ross Lot 8287 Town of Alice Springs
Power and Water Corporation Date: 15 July 2019 Report: Discharge of raw sewage from sewerage network (manhole)	55 Mitchell Street, Darwin Lot 7402 Town of Darwin
Power and Water Corporation Date: 15 July 2019 Report: Discharge of raw sewage from sewerage network	7 Waratah Crescent, Fannie Bay Lot 8898 Town of Darwin
Conoco Phillips Pipeline Australia Pty Ltd Date: 11 July 2019 Report: Hydraulic oil spill	611A Wickham Point Road, Wickham Point Lot 1870 Hundred of Ayers
Groote Eylandt Mining Company (GEMCO) Date: 8 July 2019 Report: Mine dewatering discharge	Anindilyakwa, Groote Eylandt NT Portion 1674
Katherine Town Council Date: 1 July 2019 Report: Tyre Fire	11 Murray Street, Katherine Lot 3177 Town of Katherine

Northern Territory Environment Protection Authority

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