



# Environment Protection Authority Regulatory Assurance Statement 2015–16



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## Purpose

The NSW Environment Protection Authority is the primary environmental regulator for NSW. The EPA protects the environment by regulating activities that could have an impact on the health of the NSW environment and its people. This includes working with business, government and the community to manage and reduce pollution.

Section 16(3) of the *Protection of the Environment Administration Act 1991* requires the EPA Board to provide the Minister for the Environment with an annual statement that contains or addresses the following matters:

- an assessment of the success of the EPA and the performance of industries that the EPA regulates in reducing risks to human health and degradation of the environment
- whether the level of environmental protection achieved is satisfactory in comparison with other Australian jurisdictions
- recommendations for improving the EPA's performance in regulating the industries for which it is responsible.

These requirements align with the EPA's vision for NSW to have a *healthy environment, healthy community and healthy business*. The EPA's priorities to deliver on this vision are set out in the *EPA Strategic Plan 2016–19*.

This Regulatory Assurance Statement is also a report to the community about the EPA's performance. It is tabled in the NSW Parliament and published on the EPA's website.

The recommendations made by the EPA Board in this statement will guide the EPA's strategic planning focus for the coming year. The 2014–15 Regulatory Assurance Statement included the EPA Board's recommendations for programs to address air quality, environmental liabilities, stakeholder engagement and workforce diversity. The EPA has progressed all of these recommendations in 2015–16.

The EPA Board is satisfied that this statement provides assurance that the EPA and the industries it regulates have reduced risks to human health and degradation of the environment.

## 1. Success in reducing risks to human health

The following initiatives undertaken by the EPA and the industries it regulates demonstrate achievement in reducing risks to human health. In 2015–16, the EPA focused on addressing human health risks presented by emerging contaminants, air quality, hazardous wastes and dangerous chemicals.

### 1.1 How the EPA has reduced risks to human health

#### Responding to the impacts of per- and polyfluorinated alkyl substances

The family of chemicals known as per- and polyfluorinated alkyl substances (PFAS) is an emerging contaminant of concern that is bioaccumulative and potentially toxic to humans and the environment. Until recently they were widely used in a range of industrial and consumer products both in Australia and internationally and their use continues in some industry sectors, such as metal-plating. PFAS are commonly found in the environment in low concentrations, due to their wide use in fire retardants, water proofing, food preparation and packaging, furnishing, clothing and recreational equipment. Use of these chemicals is largely being phased out in Australia and programs are underway in several jurisdictions to identify legacy contamination.

## **PFAS contamination at Williamtown**

The Williamtown RAAF Base near Newcastle has been in operation since 1941 and this has included training and operational activities for fire and emergency response. From the 1970s to the 2000s, the Department of Defence frequently trained with and tested its firefighting systems, using an aqueous film-forming foam that contained a range of PFAS compounds.

Offsite migration of PFAS has contaminated an area of up to 50 square kilometres, including groundwater, surface water, soils, vegetation and aquatic and terrestrial biota. The EPA informed the community of the contamination in September 2015, following receipt of a draft report and confirmation from the Department of Defence.

In response, the NSW Government, led by the EPA:

- established an Expert Panel consisting of a range of technical experts in contamination and health to provide advice to the EPA
- established an investigation area and put in place a range of precautionary measures to protect public health
- secured agreement from the Department of Defence to expedite and undertake site investigations, consistent with NSW regulatory requirements
- facilitated and contributed to an extensive program of sampling, assessed in conjunction with the Expert Panel, to examine impacts on groundwater and surface water and local fisheries, specifically fish, prawns and oysters
- established a Community Reference Group to share information on the progress of the investigation with the community and seek input on issues of concern
- established a group to keep elected representatives at all levels informed about the Defence and NSW Government agency response
- funded additional mental health services in the area and provided a community liaison officer to assist affected residents and businesses
- funded a liquid chromatography-mass spectrometer to allow the Office of Environment and Heritage to expedite analysis of samples for PFAS
- commenced connecting potentially impacted residents to reticulated town water.

The Australian Constitution and Commonwealth law limits the powers of the NSW EPA to regulate pollution or contamination caused by the Department of Defence. The EPA has advised the Department of Defence of its expectation that remediation of the RAAF Base and surrounding areas will be progressed with the objective of returning the surrounding lands to a condition that will allow restrictions to be progressively lifted over time.

## **PFAS statewide investigation program**

In the context of the Williamtown contamination, the EPA has commenced a program to investigate the historical legacy of PFAS use in the NSW environment. The program focuses on sites where, in the past, PFAS chemicals may have been used in large quantities, including airports, firefighting training facilities and some industrial sites.

The program will identify exposure pathways that may increase people's contact with the chemicals, such as the use of bore water and surface water and at fishing sites.

## **Leading the regulation of gas activities**

Since 1 July 2015, the EPA has been responsible for regulating all gas activities in NSW, including the compliance and enforcement of other agencies' conditions for gas approvals (excluding work health and safety issues).

Since taking on its role as lead regulator for gas, the EPA has conducted 197 site inspections at all 10 gas projects across NSW. These have included routine inspections that are part of the annual compliance program, inspections of rehabilitation work and inspections in response to reports from the community through the EPA's Environment Line. During the inspections, the EPA assessed compliance with gas statutory instruments, including petroleum titles, development consents, environment protection licences and water approvals.

Further to its core regulatory work, the EPA actively engages with local communities, including attending local consultative committee meetings. These meetings help the EPA build an understanding of community concerns, and provide a forum to update the community regarding its compliance and enforcement activities for gas, with experts often on hand to answer technical questions. Attendance at these meetings has proven invaluable for both the communities affected and the EPA.

The EPA is also rolling out its transportable 3D immersion training facility. This comprehensive regulatory training package has been developed for staff involved in regulating the gas industry. The 3D immersion facility will provide a safe and realistic training environment for staff and provide another platform to engage and consult with the NSW community and stakeholders.

## **Tackling problem and potentially harmful waste**

### **Improving collection of household problem wastes**

A wide range of potentially harmful products used in households cannot be disposed of in kerbside bins. This problem waste includes leftover or unwanted cleaners, paint, pool and garden products and hobby chemicals. Households often struggle to find a solution to disposing of these wastes.

One approach the EPA has taken to address this issue is the establishment of fixed and mobile community recycling centres across NSW. These services are available for householders year round to dispose of their low-toxicity problem wastes, such as paints, oils, gas bottles, batteries, fluorescent lights and globes and smoke detectors.

In 2015–16, a further 15 community recycling centres commenced operations, bringing to 586 tonnes the total problem waste collected. In addition, a record 2056 tonnes of chemicals were collected by the EPA's mobile household chemical collections from over 51,000 residents who used the service.

### **Introducing WasteLocate**

WasteLocate is a smartphone and tablet application that uses QR2id codes and scanners to monitor in real time the transport of waste tyres and asbestos from their place of generation to their final destination. QR2id codes are two-dimensional barcodes often found in advertising or on brochures that enable readers to visit a website by scanning the code.

The WasteLocate tracking tool will store vital information that simplifies reporting obligations for consignors, transporters and receiving facilities, and empowers waste generators to ensure their waste is going to the right place. This new technology, a first for the EPA, will provide instant alerts for non-compliance and new reporting and mapping capabilities for smarter regulation. It provides the agency with a new platform for real-time data capture that could be extended to other problematic industry sectors in the future.

## Treated timber initiative

Timber treated with certain chemical preservatives has been successfully protected from decay and insect attack, but some of these treatments can harm people or the environment if not handled correctly. This applies particularly to copper chrome arsenate, which contains arsenic, a human carcinogen.

The EPA regulates the use of restricted chemicals, such as copper chrome arsenate, but not the end product, apart from the disposal of larger quantities. In light of this, the EPA has commenced its treated timber initiative to reduce potential hazards associated with the use and disposal of these products. This aims to help consumers make better choices when buying treated timber and encourage safe and environmentally responsible management and lawful disposal of these products.

During 2015–16, the EPA, assisted by the NSW Environmental Trust, published and distributed a range of program materials, including:

- comprehensive web-published information about treated timber
- a short video about choosing treated timber and working safely
- two e-learning modules, one for retail employees and the other for consumers
- a printed poster and brochure.

Materials have been sent to all NSW councils, National Parks and Wildlife Service workshops, hardware and timber retailers, truss and frame-makers, TAFE and state high schools. The EPA has also participated in a number of community events to promote the initiative.

## 1.2 How industry the EPA regulates, has reduced risks to human health

### Voluntary compliance of cruise ships within NSW low-sulfur fuel requirements

Air emissions from cruise ships in Sydney Harbour have the potential to impact local communities. Many cruise ships emit high levels of fine particles and sulfur dioxide from fuel, both of which can be harmful to human health.

The Protection of the Environment Operations (Clean Air) Amendment (Cruise Ships) Regulation 2015 took effect for cruise ships at berth in Sydney Harbour in October 2015 and was due to also apply to vessels operating in Sydney Harbour from July 2016. The Regulation aimed to control the levels of sulfur in shipping fuels used in NSW, thus reducing the impact on air quality of vessels at berth in ports. After the Regulation commenced, the EPA conducted an extensive compliance program to ensure that cruise ship operators were meeting the fuel requirements.

However, amendments by the Commonwealth to the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983*, effective in January 2016, rendered the NSW low-sulfur requirement inoperative. While the NSW Government works to seek agreement with its federal counterpart to enable operation of the NSW fuel standard, cruise ship operators have agreed to voluntarily comply with the state's lower sulfur requirements while at berth.

### Industry innovating to reduce diesel emissions

#### Infrastructure sector

During the year, the EPA partnered with the Infrastructure Sustainability Council of Australia (ISCA) to invite industry to share best-practice approaches for reducing diesel emissions across the construction sector via a series of case studies. Investment in reducing emissions from diesel construction equipment can contribute to healthier workers and communities, more efficient and better maintained equipment, fuel and cost savings, and improved environmental performance overall.

Initial case studies from contractor CPB John Holland Dragados on the Sydney Metro Northwest project, Blacktown City Council and the Downer Group have showcased such beneficial actions as the procurement of low-emission equipment, retrofitting service equipment with technology to reduce diesel emissions and providing driver awareness training. The case studies were published on the EPA's website in May 2016.

### **Rail sector**

In 2015 and 2016, the EPA undertook projects in partnership with the rail industry, in particular rail operator Pacific National, to improve the evidence base and assess the feasibility and effectiveness of the emission reduction technology available. The projects evaluated the current emission and fuel performance of selected diesel locomotives most commonly travelling the NSW rail networks. They also evaluated the impacts of emission reduction technology on locomotive emissions, fuel consumption and noise.

The initial project showed that emission upgrade kit technology was effective in reducing PM<sub>2.5</sub> emissions by 60–65% and NO<sub>x</sub> emissions by 30–40% for Electro-Motive Diesel (EMD) locomotives, but fuel consumption increased by 2–5%. Noise was largely unaffected or slightly reduced. The results of the project were published on the EPA website and communicated to stakeholders through a workshop in March 2016.

Further projects have investigated the relationship between fuel consumption and NO<sub>x</sub> emissions from EMD locomotives and the emissions and fuel baseline of General Electric (GE) locomotives. EMD and GE locomotives constitute more than 90% of the locomotives operating in NSW. The results of these projects will inform policy development to manage emissions from diesel locomotives in NSW.

### **Reducing petrol vapours at service stations**

Petrol vapours emitted from service stations contain volatile organic compounds which contribute to the impacts of ground-level ozone or photochemical smog. Smog is associated with chronic health impacts, such as respiratory illnesses and asthma. Volatile organic compounds also contain air toxics, such as benzene, toluene and xylene, which are known carcinogens.

Mandating the use of vapour recovery equipment at service stations can help prevent vapours from leaking into the air. In consultation with stakeholders, the EPA has been administering a staged rollout of vapour recovery under the Protection of the Environment Operations (Clean Air) Regulation 2010. Installation requirements and deadlines vary according to the volume of petrol going through a service station, with smaller stations exempt unless they are new or newly modified.

Vapour recovery control equipment required to be installed under Stage 1 of the rollout captures displaced vapours from storage tanks when tankers deliver fuel to service stations. Stage 2 equipment will capture displaced vapours at the petrol dispensers while motorists refuel.

The rollout of vapour recovery measures has been successful with the vast majority of service stations complying with requirements:

- 95% of the 1129 service stations required to install or upgrade Stage 1 vapour recovery equipment had done so by 30 June 2016
- all 10 large service stations in the greater metropolitan area have installed both Stage 1 and Stage 2 vapour recovery control equipment
- 40% of the 265 existing medium-to-large service stations in the Sydney Metropolitan Area required to install Stage 2 vapour recovery equipment by 1 January 2017 had complied by 30 June 2016 with most of the remaining service stations on track or committed to meeting requirements.

The EPA is currently considering appropriate action for those sites that have not met their Stage 1 requirements.

### **Maintaining safety in older tankers**

Investigations have shown a widespread failure in compliance with the laws and standards for maintaining older dangerous goods tanker vehicles. This includes findings from investigations following a fatal tanker accident at Mona Vale in Sydney in 2012 and an EPA project in 2014–15 on maintaining safety in older tankers, as well as regular compliance inspections.

The EPA, with the tanker industry, has established a pilot inspection program for tankers transporting dangerous goods, which will be completed in 2016–17.

### **Radiation industry**

The EPA administers radiation user and management licences, accredits consulting radiation experts and radiation security assessors, and conducts compliance and enforcement programs to protect the community and the environment from the harmful effects of exposure to ionising and non-ionising radiation.

In 2016, the EPA completed audit and compliance programs to ensure that industrial radiography and satellite nuclear medicine practices were meeting legislative requirements relating to radiation safety and security. The audits identified a number of non-compliances across both sectors and these have been brought to the attention of those licence holders. The EPA is planning follow-up inspections of these industry groups in 2016–17 to ensure that all the non-compliances identified have been addressed.

The EPA also conducted a comprehensive review of radiation user and management licence conditions and implemented cost recovery for radiation activities, including improved revenue prediction capability.

## **2. Success in protecting the environment from degradation**

The following initiatives undertaken by the EPA and the industries it regulates demonstrate achievement in protecting the environment from degradation. In 2015–16, activity in this area focused on innovative regulation, encouraging shared community responsibility for environment protection, and programs in the waste and forestry sectors.

### **2.1 How the EPA has protected the environment from degradation**

#### **Successful prosecutions**

The environment protection legislation administered by the EPA – primarily the *Protection of the Environment Operations Act 1997* (POEO Act) – defines a number of offences. When a breach of that legislation occurs, a number of options are available to the EPA, including prosecution, penalty notices and formal warnings.

In 2015–16, the EPA completed 40 prosecutions with a 98% success rate, securing \$702,350 in financial penalties. Environmental service orders, which directed over half of the total financial penalties imposed towards environmental improvement, were secured in six of these cases. Successful prosecutions provide both a specific and a general deterrent against future harm.

The EPA accepted two enforceable undertakings, requiring both private industry and government agencies to pay \$330,000 for environmental work.

#### **Compliance Audit Program**

The EPA undertakes a range of compliance assurance activities with a focus on compliance audits that aim to assess industry's compliance with the legislative requirements the agency administers. In 2015–16, the EPA completed 33 compliance audits of licensed facilities, including polymetallic mines and coal ash dams, as well as desktop audits of extractive industries, resulting in licensees implementing a number of actions to improve their environmental performance.



As part of its compliance audit program, the EPA also assessed the pollution incident management plans (PIRMPs) of 10 licensees to ensure they were current, adequate and being implemented effectively. The assessment found that some of the PIRMPs lacked required information such as identifying the major environmental hazards connected with the licensed activity and failing to make relevant information about the PIRMP available on the web. Follow-up by the EPA has confirmed that all issues identified during the compliance audits have been addressed.

### **Encouraging reporting of litter**

The NSW Premier has identified 'Reducing the volume of litter by 40% by 2020' as one of his 12 priorities for NSW.

The EPA has continued to roll out the *Hey Tosser!* litter campaign, which includes the key messages to 'report to the EPA' (where people see littering from vehicles) and 'put it in the bin'. Mid-point campaign research conducted in February 2016 showed a 94% approval for the *Hey Tosser!* message. In 2015–16, over 7500 people registered to report littering from vehicles under the Report to EPA system, resulting in 12,246 reports.

The National Litter Index indicates that the volume of littered items across NSW has fallen by 19% since the baseline year of 2013–14, which is almost halfway to the Premier's Priority Target.

### **Environmental liabilities project**

The EPA has launched an environmental liabilities project to ensure that environmental liabilities created or acquired by a business are a cost for that business – not a cost borne by the community. In the process of developing this framework, the EPA has commenced discussions with the insurance industry on the promotion of environmental insurance and the tailoring of products to meet the EPA's needs.

The EPA convened a workshop on environmental liabilities in May 2016 in conjunction with the Australasian Environmental Law Enforcement and Regulators Network (AELERT) and this led to the establishment of a national working group on the issue.

### **Mapping of koala and threatened ecological communities**

The EPA's three-year koala and threatened ecological communities mapping projects were completed on 30 June 2016. The koala mapping program has delivered a series of habitat mapping products and important research findings that will be used to improve how koalas are identified and protected in native forestry areas on both public and private land.

The threatened ecological communities mapping project was designed to support improved recognition, regulation and management of threatened ecological communities in native forestry areas in NSW. It focused on mapping 18 communities across a coastal study area of 1.4 million hectares.

The mapping project has been a unique and ground-breaking way of addressing regulatory issues associated with current NSW Scientific Committee determinations for threatened species communities. The EPA will use the outputs of the mapping project to support improved recognition, regulation and management of threatened species communities in NSW native forestry areas.

### **Combatting illegal dumping**

Funded through the *Waste Less, Recycle More* initiative, a dedicated team is tackling illegal dumping as part of the *NSW Illegal Dumping Strategy 2014–16*. The team has been working to develop partnerships, educate others, collect evidence and undertake strategic enforcement.

The following actions were taken in 2015–16:

- community awareness raised through events, social media, newspaper articles, advertising, educational material and stakeholder workshops
- resources and prevention infrastructure increased through grant programs
- increased enforcement efforts through higher penalties and new waste provisions
- consistent branding and messaging developed for use across the state
- work with stakeholders to build capacity and strengthen relationships
- large-scale illegal dumping by repeat offenders and organised networks targeted.

The EPA also developed RIDOnline, the first statewide illegal dumping reporting portal, which makes it easier for both the general public and land managers to report dumping incidents. To date, 186 organisations that manage public land have registered as users and over 11,000 incidents have been reported, providing more accurate baseline data for monitoring future trends.

Two more regional illegal dumping (RID) squads were established during 2015–16, bringing the total to five and covering 41 local government areas.

Three grant programs to help clean up and reduce illegal dumping were also rolled out this year, with \$1.56 million awarded in total.

### **Industry audit of underground petroleum storage systems**

The EPA, in conjunction with local government, conducts site inspections to assess compliance with the *Protection of the Environment Operations Act 1997* and the associated Underground Petroleum Storage System Regulation and to facilitate councils' awareness of the operational aspects of the Regulation. There have been over 450 such inspections since the commencement of the Regulation in 2008.

In 2015–16, poorly performing and non-compliant sites identified during initial inspections were made a high priority for follow-up to assess compliance improvements. Subsequent inspections found that 60% of these sites had made some improvements towards underground petroleum storage system compliance with even stronger results in some areas: for example in the Wyong local government area, 80% of the targeted underground fuel storage sites are now compliant.

### **Diverting waste from landfill**

The EPA's Better Waste and Recycling Fund assists local councils to achieve the targets set by *NSW Waste Avoidance and Resource Recovery Strategy 2014–21*. These include improving recycling and community engagement, reducing waste generation and tackling litter and illegal dumping. The fund supported over 300 projects in 2015–16 with approximately 40% of monies allocated to projects that increased diversion of waste from landfill. Grants included \$17.2 million to 81 participating organisations and local councils for waste avoidance and resource recovery projects. Nine regional council groups also received funding in 2015–16 to implement regional waste and recycling projects that enhanced or supported the priorities of member councils.

*Love Food, Hate Waste* is the EPA's education platform on avoiding food waste. It provides grant funding to local government and community organisations to help them deliver education projects to reduce food waste. Through a website, Facebook page and community engagement, *Love Food, Hate Waste* provides tips, advice and practical resources to help households and businesses waste less food.

A *Love Food, Hate Waste* tracking survey showed 68% of NSW households had adopted five or more techniques to avoid food waste (up from 61% in 2012). In 2015–16, a new *Love Food, Hate Waste* business program was piloted with 79 cafes, pubs and restaurants taking part and plans for a statewide rollout in 2016–17.

The \$43.1-million, three-year Major Resource Recovery Infrastructure Program accelerated and stimulated investment in new resource recovery infrastructure in 2015–16. Funded projects included the installation of a glass-crushing plant and an optical sorting unit for plastics to increase recycling, and a variety of projects aimed at increasing the amount of timber rescued from landfill. When complete, projects funded under the program will divert 600,000 tonnes of waste from landfill every year.

Projects funded under the Resource Recovery Facility Expansion and Enhancement Program will divert over 112,000 tonnes of waste from landfill per year from business, industry and households through the recovery of paper, cardboard, wood, timber, plastics, metals and glass from sorted and unsorted waste.

The EPA's Circulate program provided funding of \$412,110 for industrial ecology projects in 2015–16, which diverted up to 6600 tonnes from landfill. The project focused on increasing the reuse of a wide variety of materials, including timber pallets and offcuts, organics, plastics, packaging and demolition building waste, through business-to-business relationships.

## **2.2 How industry the EPA regulates has protected the environment from degradation**

### **Pollution reduction programs**

In 2015–16, the EPA agreed to or imposed 173 environmental programs. This included 115 pollution reduction programs, which are generally imposed on environment protection licensees in response to ongoing environmental or compliance issues, 16 environmental improvement programs, which may be agreed to where improvements are voluntarily initiated by licensees, and 42 other programs such as pollution studies.

### **Baseline established for risk-based licensing scheme**

The EPA's risk-based licensing system, which began in July 2015, allows the EPA to better target its regulatory effort towards high-risk and poorly performing licensees and helps licensees to better understand and mitigate environmental risks. It also provides the community and industry with important new information about the environmental performance of environment protection licensees.

During 2015–16, the EPA focused on assessing the site-specific risks posed by licensed activities to identify any environmental issues that licensees needed to address. The EPA completed risk assessments at 1328 licensed premises in 2015–16, which was in addition to the 598 risk assessments the previous year. Overall environmental risk levels are published on the EPA's POEO Public Register.

The following key elements of the risk-based licensing system focus on environment protection outcomes:

- transparent and collaborative assessment of risk with licensees
- the incentive of a reduced regulatory burden for lower risk activities and good environmental performers
- provision of incentives to improve environmental performance through changes to licence administrative fees which commence from 1 July 2016.

### **Bin Trim**

The EPA Bin Trim Business Grants Program funds free waste assessments and tailored action plans to help small and medium-sized businesses reduce waste and increase recycling. Bin Trim assessors enter data into the online Bin Trim tool, which allows the EPA to monitor progress towards the relevant targets in *Waste Avoidance and Resource Recovery Strategy 2014–21*.

In 2015–16, over 9300 small and medium-sized businesses registered for the Bin Trim Rebates Program with 4721 of these completing the program and receiving rebates covering up to 50% of the cost of their small-scale onsite recycling equipment. These businesses jointly reduced general waste by 12,376 tonnes and increased recycling by 8834 tonnes.

### 3. Evaluation of the EPA's performance

The EPA's performance on environment protection in NSW in 2015–16 can be compared with other Australian jurisdictions using a range of measures. These include initiatives where the EPA has demonstrated leadership, comparisons with the performance of other jurisdictions and independent or external assessment of the EPA's performance.

#### 3.1 Leaders in Australia

##### Review of the National Environment Protection (Ambient Air Quality) Measure

Since 2012 the EPA led the national review and adoption of updated particle standards for PM<sub>2.5</sub> (fine particles less than 2.5 microns [ $\mu\text{m}$ ] in diameter) and PM<sub>10</sub> (particles less than 10  $\mu\text{m}$  in diameter, including PM<sub>2.5</sub>).

Particles are emitted directly by sources that include diesel engines, industry, woodfire heaters and natural events, such as bushfires and dust storms, and form in the atmosphere from other pollutants. Exposure to airborne particles can be detrimental to human health. The most compelling epidemiological evidence and the greatest health costs are associated with exposure to the very fine PM<sub>2.5</sub> particles.

The particle standards review led by the EPA involved a comprehensive three-year program to consider the scientific evidence and the costs and benefits of adopting new national health-based particle standards.

Following extensive national consultation, in December 2015 Environment Ministers across the nation agreed to vary the *National Environment Protection (Ambient Air Quality) Measure* to:

- adopt, as reporting standards, the advisory standards for annual-average and 24-hour PM<sub>2.5</sub> particles of 8 micrograms per cubic metre ( $\mu\text{g}/\text{m}^3$ ) and 25  $\mu\text{g}/\text{m}^3$  respectively
- include an annual-average PM<sub>10</sub> standard of 25  $\mu\text{g}/\text{m}^3$
- aim to move to annual-average and 24-hour standards for PM<sub>2.5</sub> of 7  $\mu\text{g}/\text{m}^3$  and 20  $\mu\text{g}/\text{m}^3$  respectively by 2025
- initiate a nationally consistent approach to reporting population exposure to PM<sub>2.5</sub>
- replace the five-day exceedance form of the PM<sub>10</sub> standard with an exceptional event rule, which also applies to the new 24-hour PM<sub>2.5</sub> standard.

The new national standards for PM<sub>2.5</sub> are more protective of health than World Health Organization Guidelines and are currently the most stringent standards in the world.

The new reporting standards came into effect in February 2016.

##### Monetary benefit orders

Under the *Protection of the Environment Operations Act 1997*, the EPA is able to seek a court order to recover monetary benefits (obtained as a result of non-compliance) when a defendant is sentenced for an offence in the Land and Environment Court. A monetary benefit order can form part of the overall penalty package. Recovering monetary benefits ensures that penalties imposed by the court are not treated as a cost of doing business. It 'levels the playing field' so that operators who comply are not at a competitive disadvantage.

To date, the EPA has not had the systems in place to seek these orders in a consistent way and so a project was instigated to address this gap. The EPA has commissioned appropriate experts to outline a standardised approach to calculate monetary benefits in a written

protocol and obtain access to a calculation tool which embodies the protocol method in a user-friendly way.

The EPA proposes to amend the POEO General Regulation so it prescribes the protocol as the method by which monetary benefits should be calculated. The EPA will also publish the calculation tool and protocol on its website, develop policy around seeking monetary benefit orders in late 2016 and commence initial cases in the NSW Land and Environment Court.

Developing a consistent system for recovering monetary benefit orders in this way will place the EPA at the forefront of environmental regulation in this area in Australia.

### **Risk communication**

The EPA, in partnership with AELERT, led an initiative to raise awareness and understanding of the issues involved in communicating risk for environmental and other regulators alongside the need to communicate important information. A key initiative was a workshop in February 2016 by Professor Peter Sandman, a world-respected authority on the communication of risk and the management of the associated controversy and public outrage.

## **3.2 Comparison with other Australian jurisdictions**

### **Independent Inquiry into the Victorian EPA**

In May 2015, Victoria's Minister for Environment, Climate Change and Water appointed a Ministerial Advisory Committee to conduct an inquiry into the performance of the Victorian EPA. The inquiry noted a number of areas where its NSW counterpart showed leadership and/or was considered the benchmark. Areas of leadership included the NSW EPA's legislative and regulatory framework, pollution incident management planning approach, use of environmental improvement plans and pollution load charges.

The committee concluded that, compared with other jurisdictions, the 'NSW EPA shows a willingness to bring polluters to account with prosecution and substantial penalties'. It recommended that the maximum penalties for offences in Victoria be increased to align with those in NSW.

In addition, the inquiry highlighted that NSW and South Australia have reviewed the regulation of waste and considered a full set of instruments, including licensing and waste levies, referencing the NSW landfill levy for providing an incentive to avoid stockpiling.

### **EPA Transparency League Table**

In April 2016, environmental compliance publication *Footprint* analysed the extent to which Australian environment protection agencies report publicly on the obligations and performance of their licensees. The *Footprint* analysis showed that 'the NSW EPA clearly provides the most extensive level of disclosure ... about its licensing activities and the performance of licensees'. The *Footprint* EPA transparency table can be accessed at [www.footprintnews.com.au](http://www.footprintnews.com.au).

### **Container Deposit Scheme**

On 8 May 2016, the Premier and the Minister for the Environment announced that NSW will implement a 10 cent refund Container Deposit Scheme from 1 July 2017. With container deposit schemes already in place in South Australia and the Northern Territory and pending in Western Australia and Queensland, this initiative reflects alignment with national trends. The EPA will be looking to harmonise with other jurisdictions to have a common refund.

The scheme will apply to most drink containers between 150 millilitres and three litres in size. Drink containers make up 44% by volume of NSW litter, so this will significantly reduce litter across the state.

Announcement of the scheme was the result of extensive work by the EPA, with a dedicated team establishing and managing an advisory committee, along with six working groups to assist in designing the scheme.

Following the Government's release of a comprehensive discussion paper in December 2015 which outlined the proposed scheme together with an industry-proposed alternative, the EPA ran six regional stakeholder consultation forums across the state.

After reviewing over 11,700 responses to the discussion paper, the EPA prepared a proposal for the scheme that was accepted by the NSW Government.

### **3.3 Independent/external performance assessment**

#### **Parliamentary Accounts Committee: Contaminated land**

During the year, the NSW Parliamentary Accounts Committee examined the Auditor-General's Performance Audit Reports of September 2013–July 2014, including the recommendations regarding the EPA's management of contaminated sites. The committee's assessment of the actions that the EPA had taken in response to the Auditor-General's recommendations found that:

- The EPA manages the registering, monitoring and remediation of more than 30,000 contaminated sites in NSW with a budget for contaminated sites of \$1.8 million.
- The EPA's new contaminated sites database will provide significant improvements in terms of the agency's ability to monitor and regulate contaminated sites in the long term. Additional funds have allowed the EPA to clear a backlog of sites that it had been notified about but had not registered on its database.
- The EPA's work in response to the Auditor-General's recommendations for developing or improving internal procedures should mean a more standardised and efficient approach to numerous activities, including the declaration of contaminated sites and escalating regulation at problem sites.

The committee acknowledged the efforts of the EPA in implementing all 13 of the Auditor-General's recommendations.

#### **Review into the management of contaminated land sites**

Environmental Science Professor Mark Taylor of Macquarie University was appointed by the Minister for the Environment to consider the EPA's implementation of the findings of the Auditor-General's 2014 report into managing contaminated sites. The purpose of Professor Taylor's review is to independently verify the EPA's implementation of the Auditor-General's recommendations and decide whether there is further scope for improvement.

Professor Taylor's first (Stage 1) interim report in December 2015 found that the EPA should have been more proactive in its management of the Williamtown RAAF Base contamination in the period 2012 to 2015, but that the actions of the EPA and other NSW Government agencies since August 2015 had been 'responsive, timely and appropriate'.

A second (Stage 2) interim report in May 2016 found the EPA's future PFC (perfluorinated chemicals) program to be 'structured and appropriate' but that the historical management of PFOS (perfluoro-octane sulfonate) and PFOA (perfluoro-octanoic acid) could have been improved. The report also recognised the EPA's recent management of emerging contaminants.

The EPA Board recommended that the Minister support a reinvigorated National Framework for Chemicals Management Working Group, which provides advice and direction to the Commonwealth, to develop environmental guidance and standard setting and engage with the Commonwealth on environment protection regulation at the next Meeting of Environment Ministers.

### 3.4 Internal assessment of the EPA's performance

A detailed assessment of the performance of the EPA against its *Strategic Plan 2015–18* can be found in *EPA Annual Report 2015–16*. During this year, the EPA also published *NSW State of the Environment 2015* and participated in the Quality Regulatory Services Initiative.

#### State of the Environment Report 2015

The EPA prepares the NSW State of the Environment Report every three years in accordance with the requirements of the *Protection of the Environment Administration Act 1991* and the ninth report in the series was released in 2015. *NSW State of the Environment 2015* provides an overview of the NSW environment, using the best and most reliable information available. The report assesses the status and condition of major environmental resources and examines environmental trends. Key EPA responsibilities are outlined in three themes: Waste and recycling; Air quality; and Contaminated sites.

The report found that a growing population and human activity are increasing pressure on many aspects of the environment, including waste production and management, energy consumption and air quality. At the same time, the ability to manage issues better has led to improvements in key areas, such as litter reduction, increased recycling and better air quality.

#### Quality Regulatory Services Initiative

The NSW Government's Quality Regulatory Services Initiative comprises the following five key reforms to make it easier for business and individuals to interact with NSW regulators:

1. enable electronic transactions
2. provide clarity in processing times
3. provide transparent appeal mechanisms
4. promote a risk-based approach to compliance and enforcement
5. focus on regulatory outcomes.

In relation to reforms 4 and 5, the Department of Premier and Cabinet has developed guidance material and a diagnostic tool to assist regulators to implement and embed this framework into their culture, plans and activities. NSW regulatory agencies commenced annual reporting against a range of measures in February 2015.

In May 2016, the EPA completed required reporting under the framework. It was noted that the EPA had already implemented much of the framework, in particular around risk-based licensing, and it is embedded in a number of publically available documents.

In summary, relative to last year, the EPA response has shown improvements in the areas of identifying risks, identifying measures and allocating resources.

## 4. Progress made against 2014–15 recommendations

This Regulatory Assurance Statement has detailed the progress made on most recommendations made in the EPA Board's 2014–15 Regulatory Assurance Statement, in particular those relating to programs delivered in 2015–16 to improve air quality, appropriate management of environmental liabilities and continued rollout of the risk-based approach to environment protection licensing.

The EPA obtained funding to deliver the Digital Strategy, which was a program identified in the agency's Information and Communications Technology (ICT) Strategy. ICT projects delivered in 2015–16 included:

- smart form solutions on mobile devices for field operations
- online capability for licence applications, payments and the submission of annual returns
- full functionality and reporting capability for waste and levy tracking
- dashboard reporting for litter from motor vehicles (VIPAR)
- management of gas instrument conditions.

Digital Strategy projects including new website development and a stakeholder relationship management database have been initiated for delivery in 2016–17.

Additional recommendations progressed in 2015–16 included the establishment of the EPA Diversity Committee to continue to deliver best practice equity and diversity policies, ongoing focus on stakeholder engagement strategies and improving digital interactions with stakeholders.

The EPA has drafted the Customer Service Improvement Plan 2016–18 to enable the agency to continue to improve the services it delivers to stakeholders each year in line with measures that support Premier's Priority 12. The plan complements the EPA ICT Strategy and places a strong emphasis on digital interactions with stakeholders, including the further development of eConnect (EPA's online licensing tool), redesign of the EPA website, continuing development of EPA reporting apps (smoky vehicles, littering from vehicles, illegal dumping, noisy exhausts), improving communication channels with stakeholders, and timely public communication of all pollution incidents through multiple channels.

## 5. Recommendations for improving EPA performance

The EPA Board considers that the EPA has achieved success in protecting the environment and human health, as evidenced by its programs and initiatives, performance evaluation and progress in implementing the recommendations from the Board's previous Regulatory Assurance Statement.

The EPA reviewed its strategic direction in 2015–16 and released the *EPA Strategic Plan 2016–19*. The EPA Board notes that the strategies and priorities in the plan align with the Board's direction for the EPA over the next three years.

For 2016–17, the EPA Board highlights the following areas for focus:

- continued leadership in improving air quality and managing hazardous waste
- continued focus on forestry and gas regulation through the new EPA offices in Port Macquarie and Narrabri to improve community access and confidence
- assisting the Minister to finalise the review of the Integrated Forestry Operations Approvals and development of new integrated forest licensing legislation
- investigation of the historical legacy of PFAS and other emerging contaminant use in the NSW environment and of ways to minimise exposure pathways to these contaminants
- implementation of regulatory changes for rail to allow more effective control of air and noise emissions
- lead and promote the removal of plastic in the environment, including shopping bags and microbeads
- pursue environmental liabilities to ensure polluters pay for clean-up
- pursue a proactive role in environmental planning with the Greater Sydney Commission
- deliver the EPA Diversity Committee pilot, including a diversity and inclusion policy, plan and reporting framework
- undertake a stakeholder survey and best practice community consultation
- improve access to EPA services by the continued delivery of Digital Strategy initiatives.