

## Western Australia

*Report to the NEPC on the implementation of the National Environment Protection (Ambient Air Quality) Measure for Western Australia by Hon Albert Jacob MLA, Minister for Environment; Heritage for the reporting year ended 30 June 2016.*

### **PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES**

In Western Australia, the National Environment Protection (Ambient Air Quality) Measure (NEPM) is implemented by the Department of Environment Regulation (DER) under the *National Environment Protection Council (WA) Act 1996* and the *Environmental Protection Act 1986*.

Implementation activities may be viewed in two categories:

- those activities related to implementing the monitoring and reporting protocol of the NEPM, plus other activities associated with the 'Future Actions' listed in the NEPM Impact Statement; and
- those activities within Western Australia (including regulatory activities) designed to ensure that the air quality is in compliance with the NEPM goal for each of the six pollutants.

In the first category, DER has:

- continued to liaise with local governments and other organisations as required to facilitate the positioning and repositioning of fixed ambient monitoring stations;
- maintained monitoring of PM<sub>2.5</sub> to facilitate the development of compliance NEPM standards for this pollutant.

In the second category, DER has:

- continued to implement the *Perth Air Quality Management Plan (AQMP)*. The AQMP is a whole of government plan aimed at improving and maintaining Perth's air quality. Implementation of a number of priority actions within the AQMP has commenced in addition to a number of ongoing programs. There continues to be a major focus on managing emissions from motor vehicles and wood heaters, via the *CleanRun* and *BurnWise* programs, respectively; and
- continued to investigate and trial a number of new monitoring technologies designed to establish a better understanding of the sources and emissions of pollutants and the dispersion of these pollutants in targeted areas. This includes monitoring campaigns that survey air quality in residential and other sensitive areas, particularly where these areas may be impacted by industrial emissions.

### **PART 2 — MAINTAINED COMMUNITY ACCESS TO THE REGULARLY UPDATED AIR QUALITY INDEX VIA DER'S WEBPAGE ([WWW.DER.WA.GOV.AU/YOUR-ENVIRONMENT/AIR](http://WWW.DER.WA.GOV.AU/YOUR-ENVIRONMENT/AIR)) ASSESSMENT OF NEPM EFFECTIVENESS**

The NEPM has provided a focus for air quality issues and driven all jurisdictions to work towards nationally consistent monitoring techniques and reporting. This has culminated in the development and approval of monitoring plans for all jurisdictions, including Western Australia. The NEPM standards and goals provide an additional impetus for the implementation of strategies and a useful benchmark against which air quality management can be assessed.

Air quality management initiatives implemented in Western Australia have placed the State in a favourable position to achieve compliance with the NEPM goals in most circumstances. Sulfur dioxide and lead have been effectively controlled by industry regulatory means. Carbon monoxide, lead and nitrogen dioxide concentrations comply with the NEPM standards by comfortable margins due to clean fuel quality standards, national vehicle emissions standards and regulatory control of other sources. Ozone and PM<sub>10</sub> remain pollutants of concern in the Perth Region and are the focus of attention within the AQMP, particularly the management of domestic PM<sub>10</sub> sources. In other regions, PM<sub>10</sub> is the pollutant of most significance with respect to the NEPM standards.

The data presented below, shows that Western Australia has met the NEPM goals for all pollutants except for PM<sub>10</sub> at Collie in 2015.

Data from relevant monitoring stations are presented in tabular form below to enable an evaluation of whether the NEPM standards and goal were met at each monitoring station. The standards, with accompanying definitions and explanations, appear in Schedule 2 of the NEPM. For averaging times shorter than one year, compliance with the NEPM goal is achieved if the standard for a pollutant is exceeded on no more than a specified number of days in a calendar year (one day per year for all pollutants except PM<sub>10</sub>, which may be exceeded no more than five days per year) and at least 75% of data are captured in each quarter.

The data are presented in greater detail in the Annual Western Australia Air Monitoring Report available on the DER web site, along with the Western Australian monitoring plan, at [www.der.wa.gov.au/your-environment/air](http://www.der.wa.gov.au/your-environment/air).

## CO

### Carbon monoxide

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(NEPM standard 8 hours = 9.0ppm)

Station	Number of exceedences	NEPM goal compliance
<b>Perth</b>		
North East Metro	0	Met
North Metro	0	Met
South East Metro	0	Met

# NO<sub>2</sub>

## Nitrogen Dioxide

(NEPM standard: 1 hour = 0.12ppm, 1 year = 0.03ppm)

Station	1 Hour		1 Year	
	Number of exceedences	NEPM goal compliance	Annual average (ppm)	NEPM goal compliance
<b>Perth</b>				
North Metro	0	Met	0.006	Met
North East Metro	0	Met	0.006	Met
Outer North Coast	0	Met	0.003	Met
South Coast	0	Met	0.005	Met
Outer East Rural	0	Met	0.002	Met
South East Metro	0	Met	0.007	Met
Inner West Coast	0	Met	0.005	Met

# O<sub>3</sub>

## Ozone

(NEPM standard: 1 hour = 0.10ppm, 4 hours = 0.08ppm)

Station	1 Hour		4 Hours	
	Number of exceedences	NEPM goal compliance	Number of exceedences	NEPM goal compliance
<b>Perth</b>				
North East Metro	1	Met	1	Met
Outer North Coast	0	Met	0	Met
South Coast	0	Met	0	Met
Outer East Rural	1	Met	1	Met
South East Metro	0	Met	0	Met
Inner West Coast	0	Met	0	Met

# SO<sub>2</sub>

## Sulfur dioxide

(NEPM standard: 1 hour = 0.20ppm, 1 day = 0.08ppm, 1 year = 0.02ppm)

Station	1 hour		1 day		1 year	
	Number of exceedences	NEPM goal compliance	Number of exceedences	NEPM goal compliance	Annual average (ppm)	NEPM goal compliance
<b>Perth</b>						
South Metro	0	Met	0	Met	0.002	Met
South Coast	0	Met	0	Met	0.001	Met
South East Metro	0	Met	0	Met	0.002	Met

# Pb

## Lead

(NEPM standard 1 year = 0.50µg/m<sup>3</sup>)

Lead monitoring ceased on 31 December 2001 following the introduction of unleaded petrol. These management initiatives consequently resulted in sustained measurements at analytical limits of detection well below the standard.

# PM<sub>10</sub>

## Particles as PM<sub>10</sub>

(NEPM standard 1 day = 50µg/m<sup>3</sup>)

Station	Number of exceedences	NEPM goal compliance
<b>Perth</b>		
North East Metro <sup>1</sup>	0	Met
North Metro <sup>1</sup>	1	Met
South East Metro <sup>1</sup>	2	Met
<b>Southwest</b>		
Albany <sup>1</sup>	2	Met
Bunbury <sup>1</sup>	3	Met
Collie <sup>1</sup>	10	Not Met
<b>Midwest</b>		
Geraldton <sup>1</sup>	5	Met

1 - Tapered Element Oscillating Microbalance (TEOM) operating continuously (unadjusted for temperature) and includes the manufacturers recommended equivalency factor of 1.03x + 3.00.

# PM<sub>2.5</sub>

## Particles as PM<sub>2.5</sub>

(NEPM standard 1 day = 25µg/m<sup>3</sup>, 1 year = 8µg/m<sup>3</sup>)

Station	1 year	
	Number of exceedences	Annual average (µg/m <sup>3</sup> )
<b>Perth</b>		
North East Metro <sup>1</sup>	5	8.5
North Metro <sup>1</sup>	3	8.4
Outer North Coast <sup>1</sup>	2	8.3
South East Metro <sup>1</sup>	5	8.8
<b>Southwest</b>		
Bunbury <sup>1</sup>	9	9.3
Busselton <sup>1</sup>	4	8.6

1 - Tapered Element Oscillating Microbalance (TEOM) operating continuously (unadjusted for temperature) and includes the manufacturers recommended equivalency factor of 1.03x + 3.00.

### Relationship between location descriptors and monitoring station location/names

Location descriptor	Station Location
North East Metro	Caversham
North Metro	Duncraig
Outer North Coast	Quinns Rocks
South East Metro	South Lake

Location descriptor	Station Location
Outer East Rural	Rolling Green
South Coast	Rockingham
Inner West Coast	Swanbourne
South Metro	Wattleup

## Western Australia

*Report to the NEPC on the implementation of the National Environment Protection (Air Toxics) Measure for Western Australia by Hon Albert Jacob MLA, Minister for Environment; Heritage for the reporting year ended 30 June 2016.*

### **PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES**

#### **Legislative, regulatory and administrative framework**

In Western Australia, the National Environment Protection (Air Toxics) Measure (Air Toxics NEPM) is implemented by the Department of Environment Regulation (DER) under the *National Environment Protection Council (WA) Act 1996* and the *Environmental Protection Act 1986*.

Air toxics emissions are also managed through the Perth Air Quality Management Plan (AQMP), a non-statutory mechanism established by the Western Australian Government. The objective of the AQMP is to ensure that clean air is achieved and maintained throughout the Perth metropolitan region. The AQMP identifies that, to achieve an overall improvement in Perth's air quality, further studies are required to determine major sources and concentrations of air toxics in the Perth metropolitan region. The initiatives within the AQMP are complementary to the Air Toxics NEPM.

#### **Implementation issues arising**

In August 2015 DER published the *Kwinana Background Air Quality Study Phase 4 – 2013 to 2014* report. The study investigated levels of certain volatile organic compounds including benzene, toluene, ethylbenzene and xylenes using an open path fourier transform infrared spectrometer (OP-FTIR) within urban areas adjacent to the Kwinana Industrial Area over a total of 69 sampling days. The advantage of the OP-FTIR is that it allows simultaneous monitoring of a range of volatile organic compounds at a higher temporal resolution than passive sampling or NEPM-compliant monitoring. The report is available on the DER website [www.der.wa.gov.au](http://www.der.wa.gov.au).

### **PART 2 — ASSESSMENT OF NEPM EFFECTIVENESS**

The NEPM has been effective in highlighting the need to investigate air toxics concentrations and providing monitoring investigation levels to which the results can be compared. The monitoring investigation levels provide a nationally consistent benchmark for assessing and comparing the concentrations of ambient air toxics from diverse monitoring sites and are an effective tool to inform government policy and programs on appropriate abatement actions.

Monitoring for air toxics in Western Australia has primarily been undertaken as part of specific studies. This has meant there are often a number of objectives to be satisfied when developing and implementing the monitoring programs. As a consequence, the NEPM monitoring protocol has not always been followed. The monitoring results from these studies are invaluable when assessing ambient air toxic concentrations across Western Australia.

An updated emissions inventory is currently being developed for the Perth Metropolitan Region. This inventory will include air toxics and will give Western Australia better information in identifying and prioritising air toxic sources in this area.

### **Reporting of monitoring of air toxics**

The results of NEPM-compliant monitoring as well as the additional complementary air quality studies in 2007–08 and 2009 indicated that air toxics levels in Perth are low compared to international standards and below NEPM monitoring investigation levels. These studies have been summarised and published in the *Background Air Quality Monitoring in Kwinana 2005–10* technical report, which is available on the DER website [www.der.wa.gov.au](http://www.der.wa.gov.au). Owing to these findings, no additional NEPM-compliant monitoring has been undertaken during the past 12 months.

### **Reporting on assessment and action if any planned or taken to manage air toxics**

Past monitoring has indicated that levels of air toxics are below monitoring investigation levels and no further action is currently indicated.

### **Repeat Identification of Stage 1 and Stage 2 sites**

No repeat identification of Stage 1 and Stage 2 sites is currently planned. The initial desktop analysis identified 13 Stage 1 sites for formaldehyde, of which three met the ranking criteria for polycyclic aromatic hydrocarbons Stage 1 sites. No Stage 1 sites were identified for benzene, toluene or xylene. Two priority categories (traffic volume and wood heater density) were used to identify two Stage 2 sites. The results of the air toxics monitoring at these two Stage 2 sites showed that the annual average concentrations for formaldehyde and benzo[ $\alpha$ ]pyrene were below NEPM monitoring investigation levels. As these two sites are representative of the Stage 1 sites initially identified, repeat identification of Stage 1 and Stage 2 sites is not needed at this time.

## Western Australia

*Report to the NEPC on the implementation of the National Environment Protection (Diesel Vehicle Emissions) Measure for Western Australia by Hon Albert Jacob MLA, Minister for Environment; Heritage for the reporting year ended 30 June 2016.*

### **PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES**

In Western Australia, the National Environment Protection (Diesel Vehicle Emissions) Measure (Diesel NEPM) is implemented by the Department of Environment Regulation (DER) under the *National Environment Protection Council (WA) Act 1996* and the *Western Australian Environmental Protection (WA) Act 1986*.

Vehicle emissions in Western Australia are regulated under the *Road Traffic (Vehicles) Act 2012* and *Road Traffic (Vehicles) Regulations 2014*. The ten-second rule for smoky vehicles aims to target visually polluting diesel and petrol vehicles and is administered by the Department of Transport (DoT).

The Government of Western Australian Perth Air Quality Management Plan (AQMP) aims to ensure that clean air is achieved and maintained throughout the Perth metropolitan region. The AQMP identifies that the management of emissions from in-service petrol and diesel vehicles is critical to achieving clean air, and contains a range of initiatives that target on-road vehicles. The implementation of vehicle emissions reduction initiatives in the AQMP are largely complementary to the outcomes of the Diesel NEPM.

### **PART 2 — ASSESSMENT OF NEPM EFFECTIVENESS**

DER undertakes roadside monitoring to assess the health of the Perth vehicle fleet. 4,512 individual diesel vehicle emission measurements from a portable roadside gas analyser deployed in 2016 were analysed to determine any significant changes in the Perth vehicle fleet emissions.

Overall, diesel fleet emissions are seen to be reducing over time. Compared to 2014 roadside monitoring data:

- Median carbon monoxide emissions are 37 per cent lower;
- Median hydrocarbon emissions are 19 per cent lower;
- Median nitric oxide emissions are 2 per cent higher; and
- Median smoke emissions are the same.

The reduced carbon monoxide and hydrocarbon emissions and slightly increased nitric oxide emission suggest emissions improvements are due to improving fuel efficiency in the diesel fleet.

Western Australia does not have in-service emissions standards to compare sampling results against.

Implementation of vehicle emissions reduction initiatives of the AQMP and the CleanRun Program are the foundation of vehicle emissions reduction strategies undertaken by DER. DER will continue to work with DoT, other government agencies and industry associations to investigate and implement motor vehicle related policies and management actions where appropriate to reduce the impact of diesel vehicle emission in Western Australia.



## Smoky vehicles program

In 2015/16 the Smoky Vehicle Reporting Program (SVRP) received 455 reports, which is an average of 37.9 reports per month, representing a 70 per cent increase in reports from 2014/15 (22.3 reports per month), but less than the 42.5 reports per month received over 2013/14.

Prior to contacting reported vehicles, DER and DoT verify reports by comparing reported vehicle details against the DoT vehicle registration database, discarding reports if details do not match. 372 letters were sent to reported vehicle owners in 2015/16 (81.8 per cent valid report rate).

Of the 372 letters issued, 266 responses were received (71.5 per cent return rate)<sup>1</sup>. Table 1 summarises the responses received for vehicle reported from July 2015 to June 2016.

**Table 1. Responses from owners of reported vehicles**

Response	2014/15	2015/16
Vehicle repaired	57 (48%)	121 (45.5%)
Vehicle does not smoke	45 (38%)	84 (31.6%)
Can't afford to repair	1 (<1%)	3 (1.1%)
Disposed of vehicle	3 (2%)	8 (3.0%)
Wrong vehicle	6 (5%)	11 (4.1%)
Other	8 (7%)	39 (14.7%)
Petrol	35 (30%)	57 (21.4%)
Diesel	71 (60%)	180 (67.7%)
LPG	2 (<2%)	1 (0.4%)
Fuel type not reported	13 (11%)	28 (10.5%)

The results show that 45.5 per cent of respondents have had their vehicle repaired since receiving a report. This is 2.5 per cent less than the previous reporting period. The proportion of respondents reporting that their vehicle does not smoke in 2015/16 was 31.6 per cent, which is less than the 38 per cent reported in 2014/15 and the 43 per cent reported in 2013/14. Reported vehicles are mostly diesel (67.7 per cent).

In 2015/16 fourteen vehicles were reported on more than one occasion. One vehicle was reported four times between August 2015 and June 2016 by different reporters each time. Responses received indicated the vehicle exhaust system was being repaired. Two vehicles were reported three times, one by the same person in all instances, the other by different reporters. One of the vehicles was reported as being disposed, the other as being booked for further repairs. Of the eleven vehicle reported twice, six indicated repairs had been made or were planned, three advised their vehicle did not smoke, and two did not provide any response.

<sup>1</sup> At the time of reporting April, May and June reports had been sent to vehicle owners with the last of the responses still being received. Reported return rate will be slightly lower than actual, but still similar.

## **Diesel vehicle emission testing and repair programs**

DER operates a portable roadside gas analyser that provides an efficient, cost effective method of characterising vehicle emissions and raising community awareness of vehicle emissions.

In February and March 2016 this remote sensing device (RSD) was deployed for twelve days across six sites in the Perth metropolitan area. Valid emissions data for 20,431 vehicles were collected, including 4,512 samples of diesel vehicles.

Results for diesel vehicles are summarised below:

- Diesel vehicle emissions are overall lower compared to 2014 and earlier RSD deployments.
- Utility vehicles (predominately diesel powered) show an increasing emissions trend compared to other vehicle body types.
- Smoke emissions from the worst performing diesel vehicles are getting worse.

Improvements in diesel emissions are attributed to the ongoing attrition of older vehicles from the fleet and the subsequent increasing representation of 'Euro 3' standard or better diesel vehicles in the fleet. The introduction of 'Euro 5 core' standards for diesel vehicles does not appear to have reduced diesel emissions to date; however, more data is required to verify this observation.

## **Audited maintenance programs for diesel vehicles**

The National Heavy Vehicle Accreditation Scheme (NHVAS) encourages heavy vehicle operators to take responsibility for servicing their vehicles and ensuring vehicles are compliant with scheme accreditation requirements.

In Western Australia, operators of certain types of heavy vehicles must become accredited to gain a permit or notice from Main Roads Western Australia. The majority of these vehicles use diesel as their primary fuel source. Western Australian Heavy Vehicle Accreditation is mandatory for individuals and organisations which require a permit or notice to perform any transport task as part of a commercial business or for profit within Western Australia, including interstate operators.

There are currently two accreditation modules - Fatigue and Vehicle Maintenance, which operators are required to incorporate into their daily work practices. Maintenance management encourages heavy vehicle operators to take responsibility for servicing their vehicles regularly and ensuring their vehicles are safe at all times. The standards for this module are similar to that required under the nationally endorsed NHVAS.

Accredited operators must ensure their vehicles are maintained and meet all relevant safety standards. A record of the maintenance and servicing work done to each vehicle must be kept to prove the vehicles are safe at all times.

Compliance and enforcement activities are key factors in ensuring effective and safe management of heavy vehicles on the road network. Transport inspectors in Western Australia are authorised by law to intercept and inspect vehicles for roadworthiness, load security and vehicle licencing conditions. Compliance also performs the important role of educating and working with the transport industry and other agencies and stakeholders to improve standards.

## **Diesel vehicle retrofit programs**

Nil

## **Other programs**

### **Communication**

The CleanRun Program was developed to make the overall vehicle emission reduction actions immediately identifiable and to facilitate the promotion of key Diesel NEPM messages in Western Australia. Web pages, fact sheets and brochures are developed and produced to provide information on the CleanRun Program. All of these documents are available on DER's website <https://www.der.wa.gov.au/our-work/programs/162-cleanrun>. Attention continues to focus on promoting Diesel NEPM messages through established programs.

### **CleanRun EcoDrive**

The CleanRun EcoDrive program aims to reduce diesel emissions through encouraging driver behaviour change.

CleanRun EcoDrive provides a resource package for fleet operators to reduce fuel use and related emissions by working with drivers to make small changes to their driving habits. Eco driving incorporates a number of safer, smarter driving techniques that maximise fuel economy by operating the engine as efficiently as possible.

The package includes the resources to develop an EcoDrive training program in-house, including driver training materials developed by experts in the transport industry. It is estimated that fleet operating organisations who implement the CleanRun EcoDrive program can reduce fuel use and related emissions by up to 20 per cent. All resources are available to download free-of-charge from DERs website <https://www.der.wa.gov.au/our-work/programs/161-cleanrun-ecodrive>. DER worked with industry partners to develop the resources.

## Western Australia

Report to the NEPC on the implementation of the National Environment Protection (Movement of Controlled Waste between States and Territories) Measure for Western Australia by Hon Albert Jacob MLA, Minister for Environment; Heritage for the reporting year ended 30 June 2016.

### **PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES**

The Western Australian Department of Environment Regulation is responsible for administering the implementation of the National Environment Protection (Movement of Controlled Waste between States and Territories) Measure (NEPM) under the *National Environment Protection Council (WA) Act 1996* and the *Environmental Protection Act 1986*.

The provisions of the *Environmental Protection (Controlled Waste) Regulations 2004* provide for the licensing of carriers, drivers, vehicles and/or tanks, and the use of controlled waste tracking forms to ensure controlled waste is transported to an appropriate waste facility.

The Department issued four consignment authorisations for the movement of controlled waste into Western Australia during 2015/2016.

### **PART 2 — ASSESSMENT OF NEPM EFFECTIVENESS**

**Table 1: Number of consignment authorisations issued by Western Australia**

<b>Reporting Year</b>	<b>Consignment authorisations issued</b>
<b>2014-15</b>	6
<b>2015-16</b>	4

**Table 2: Quantity of controlled waste into Western Australia for the period  
1 July 2015 to 30 June 2016  
Tonnes per waste category by State/Territory**

Code	Description	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ext-Terr*	Total (tonnes)
A	Plating & heat treatment				n/a				68.00		68.00
B	Acids				n/a						0.00
C	Alkalis				n/a						0.00
D	Inorganic chemicals				n/a	0.01			108.00		108.01
E	Reactive chemicals				n/a						0.00
F	Paints, resins, inks organic sludges				n/a	1.00					1.00
G	Organic solvents				n/a						0.00
H	Pesticides				n/a				118.00		118.00
J	Oils				n/a	33.00			53.00		86.00
K	Putrescible/organic waste				n/a						0.00
L	Industrial washwater				n/a						0.00
M	Organic chemicals				n/a						0.00
N	Soil/sludge				n/a						0.00
R	Clinical & pharmaceutical				n/a						0.00
T	Misc.				n/a						0.00
<b>State Totals (tonnes)</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>34.01</b>	<b>0.00</b>	<b>0.00</b>	<b>347.00</b>		<b>381.01</b>

**Table 3: Discrepancies in movements of controlled waste into Western Australia for the period  
1 July 2015 to 30 June 2016  
Percentage of total movements**

Discrepancy Type	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ext Terr*
Consignment non-arrival									
Transport without authorisation									
Non-matching documentation									
Waste data									

**Table 4: Number of movements of controlled waste into Western Australia for the period  
1 July 2015 to 30 June 2016**

NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ext Terr*
			n/a	4			17	

## Western Australia

Report to the NEPC on the implementation of the National Environment Protection (National Pollutant Inventory) Measure for Western Australia by Hon Albert Jacob MLA, Minister for Environment; Heritage for the reporting year ended 30 June 2016.

### PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES

In Western Australia, the Department of Environment Regulation (DER) is responsible for implementing the National Environment Protection (National Pollutant Inventory) Measure under the *National Environment Protection Council (WA) Act 1996*, the *Environmental Protection Act 1986* and the *Environmental Protection (NEPM-NPI) Regulations 1998*. The implementation of the NEPM continues to be successful in Western Australia.

DER has identified opportunities for enhanced administration of the NPI NEPM through the collection and reporting of aggregated emissions data. Work on the Perth Air Emissions Study 2011-12 was undertaken during the reporting period to update the aggregated emissions data for the greater Perth metropolitan region.

### PART 2 — ASSESSMENT OF NEPM EFFECTIVENESS

Participation Levels	Feedback from the Community, Industry and Government	Implementation Activity Effectiveness
<b>PUBLIC</b>		
	<ul style="list-style-type: none"> <li>Environment groups and the media utilise NPI NEPM data where environmental issues of concern are identified.</li> <li>Some direct enquiries were received from the public regarding NPI database information.</li> </ul>	<ul style="list-style-type: none"> <li>The NPI NEPM pages of DER's website were updated during the reporting period to improve accessibility.</li> </ul>

<b>INDUSTRY</b>		
<ul style="list-style-type: none"> <li>797 reports for 2014–15</li> <li>829 reports for 2013–14</li> <li>22 new reporters</li> <li>No new sectors reporting</li> <li>No confidentiality claims submitted</li> </ul>	<ul style="list-style-type: none"> <li>Widespread compliance with the online reporting system with 96 per cent uptake in WA for 2014-15 (one per cent increase).</li> <li>Some smaller facilities require above-average reporting guidance due to the lack of dedicated personnel.</li> <li>Major industrial facilities maintain awareness of community interest in their emissions, and ensure reports reflect site emissions.</li> </ul>	<ul style="list-style-type: none"> <li>Training sessions provided to industry reporters included information sessions, a webinar and online reporting training.</li> <li>Reporters from other jurisdictions were invited and attended the webinar.</li> <li>Continued follow-up of potential reporters in several industry sectors.</li> <li>Reporters regularly reminded of reporting deadlines and supplied</li> </ul>

	<ul style="list-style-type: none"> <li>Support provided by DER staff acknowledged by reporters in feedback.</li> </ul>	with additional reporting information to that available on website.
<b>GOVERNMENT</b>		
<ul style="list-style-type: none"> <li>797 desktop audits</li> <li>14 on-site audits</li> <li>No regulatory actions</li> </ul>	<ul style="list-style-type: none"> <li>DER uses the NPI NEPM to inform policy development, program implementation and to support regulatory activity.</li> <li>DER uses NPI NEPM data for the development of an emissions inventory for the greater Perth metropolitan region.</li> <li>NPI NEPM data is used to identify and rank WA's major emitters with comparisons made with national data.</li> </ul>	<ul style="list-style-type: none"> <li>Details of major emitters are provided to DER licensing personnel for information, data cross-checking and follow-up as required.</li> <li>DER uses toxic equivalency potentials to support the assessment of risk.</li> </ul>

## Western Australia

*Report to the National Environment Protection Council (NEPC) on the implementation of the National Environment Protection (Used Packaging Materials) Measure for Western Australia by Hon Albert Jacob MLA, Minister for Environment; Heritage for the reporting year ended 30 June 2016.*

### **PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES**

In Western Australia, the National Environment Protection (Used Packaging Materials) Measure (NEPM UPM) is implemented by the Department of Environment Regulation (DER) under the *National Environment Protection Council (WA) Act 1996*, the *Environmental Protection Act 1986* and the *Environmental Protection (NEPM-UPM) Regulations 2013*.

### **PART 2 — ASSESSMENT OF NEPM EFFECTIVENESS**

During the reporting period, the covenant secretariat referred five signatories registered in Western Australia as being non-compliant with the Covenant, and two brand owners identified as non-signatories to the Covenant and potentially subject to the requirements of the NEPM UPM. Compliance action commenced but was not finalised during the reporting period.

During the reporting period, the number of Western Australian signatories decreased from 50 to 47.

#### **Recovery Data**

No Western Australian based companies have been required to provide records for auditing.

#### **Supporting Data**

In August 2015, a meeting of jurisdictions and industry resolved that jurisdictions would not carry out the brand owner audit during the reporting period, and that industry would take responsibility for brand owner audits from 1 July 2016.

#### **Complaints, Investigations and Prosecutions**

No complaints were received, or investigations or prosecutions undertaken, during the 2015-16 reporting period.

#### **Statement of Interpretation of the Information**

Not applicable

#### **Local Government Data**

Local government data will be available at [www.der.wa.gov.au](http://www.der.wa.gov.au) from June 2017.



## Western Australia

*Report to the NEPC on the implementation of the National Environment Protection (Assessment of Site Contamination) Measure for Western Australia by Hon Albert Jacob MLA, Minister for Environment; Heritage for the reporting year ended 30 June 2016.*

### **PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES**

- The Department of Environment Regulation (DER) is responsible for regulating the assessment of site contamination in Western Australia (WA) under the *Contaminated Sites Act 2003* (CS Act) and the *Contaminated Sites Regulations 2006*.
- The NEPM and other relevant technical guidelines are taken into account by DER in regulating contaminated sites, by contaminated sites auditors when conducting site audits, and by environmental consultants when assessing the risk to human health and the environment from known and suspected contaminated sites.
- During the year ended 30 June 2016, 166 known or suspected contaminated sites were reported to DER compared with 151 in the previous year. In the same period, DER received 84 mandatory audit reports related to contaminated sites. These reports were submitted to comply with conditions imposed under a written law, generally a Ministerial or planning condition, or as part of the investigation or remediation of a known or suspected contaminated site.
- Compliance with the NEPM and departmental guidelines is assessed in the site classification/reclassification process under the CS Act. DER classified 390 sites (including reclassifications) during the year, bringing the total number of classified sites to 3,282. As of 30 June 2016, 807 of these sites were listed on the public contaminated sites database and require remediation or restrictions on the use of the land and/or groundwater to protect public health, the environment and/or environmental values.
- Environmental practitioners' awareness of the amended NEPM requirements has continued to improve in WA and as a result, the assessment reports submitted to DER show more consistency in the application of the guidance.

### **PART 2 — ASSESSMENT OF NEPM EFFECTIVENESS**

DER regularly liaises with environmental regulators in other jurisdictions to ensure a nationally consistent approach can be developed for any new implementation issues as they arise.

The limited number of Ecological Investigation Levels (EILs) provided in the NEPM is a major limitation identified in consistency in implementation. Although the NEPM provides a detailed methodology in Schedule B5b for developing new EILs, this is rarely done in practice for individual site assessments due to the time and effort required to carry out an appropriately detailed literature search to identify and assess relevant ecotoxicity data.

To ensure that the NEPM continues to provide authoritative guidance where site contamination has occurred, it is important that the guidance is periodically reviewed in the context of advances in scientific knowledge and updated technical information. The inclusion of relevant supporting material in the NEPM Tool Box assists in promoting a nationally consistent approach to emerging issues. The inclusion of new EILs in the Tool Box, derived using the NEPM methodology by appropriately qualified experts and endorsed by environmental regulators, would be consistent with the purpose and desired environmental outcome of the NEPM.

## Western Australia

*Report to the NEPC on the implementation of the National Environment Protection (Ambient Air Quality) Measure for Western Australia by the Hon. Albert Jacob, MLA Minister for Environment; Heritage (21 March 2013 – 16 March 2017) and the Hon. Stephen Dawson, Minister for Environment; Disability Services (17 March 2017 to 30 June 2017 for the reporting year ended 31 December 2016.*

### **PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES**

On 1 July 2017, the Western Australian Department of Environment Regulation (DER) was amalgamated with two other departments; the Department of Water (DOW) and the Office of the Environmental Protection Authority (OEPA) and was renamed the Department of Water and Environmental Regulation (DWER).

In Western Australia, The National Environment Protection (Ambient Air Quality) Measure (NEPM) is implemented by the Department of Water and Environmental Regulation (DWER) under the National Environment Protection Council (WA) Act 1996 and the Environmental Protection Act 1986.

Implementation activities may be viewed in two categories:

- those activities related to implementing the monitoring and reporting protocol of the NEPM, plus other activities associated with the 'Future Actions' listed in the NEPM Impact Statement; and
- those activities within Western Australia (including regulatory activities) designed to ensure that air quality is in compliance with the NEPM goal for each of the six pollutants.

In the first category, DWER has:

- continued to liaise with local governments and other organisations as required to facilitate the establishment of fixed ambient monitoring stations.
- maintained monitoring of carbon monoxide, oxides of nitrogen, ozone, sulfur dioxide and PM<sub>10</sub> and PM<sub>2.5</sub> particle fractions.

In the second category, DWER has:

- continued to implement the *Perth Air Quality Management Plan (AQMP)*. The AQMP is a whole of government plan aimed at improving and maintaining Perth's air quality. Implementation of a number of priority actions within the AQMP has commenced in addition to a number of ongoing programs. There continues to be a major focus on managing emissions from motor vehicles and wood heaters, via the *CleanRun* and *BurnWise* programs respectively.
- continued to investigate and trial a number of new monitoring technologies designed to establish a better understanding of the sources and emissions of pollutants and the dispersion of these pollutants in targeted areas. This includes monitoring campaigns that survey air quality in residential and other sensitive receptor areas, particularly where these areas may be impacted by industrial emissions.
- maintained community access to the regularly updated air quality index via DWER's webpage ([www.dwer.wa.gov.au/your-environment/air](http://www.dwer.wa.gov.au/your-environment/air)).

## **PART 2 — ASSESSMENT OF NEPM EFFECTIVENESS**

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The Ambient Air Quality NEPM has provided a focus for air quality issues and driven all jurisdictions to work towards nationally consistent monitoring techniques and reporting. This has culminated in the development and approval of monitoring plans for all jurisdictions, including Western Australia. The NEPM standards and goals provide an additional impetus for the implementation of air quality improvement strategies and are a useful benchmark against which air quality management can be assessed.

Air quality management initiatives implemented in Western Australia have placed the State in a favourable position to achieve compliance with the NEPM goals in most circumstances. For example, sulfur dioxide has been effectively controlled by industry regulatory means. Carbon monoxide, lead and nitrogen dioxide concentrations comply with the NEPM standards by comfortable margins due to clean fuel quality standards, national vehicle emissions standards and regulatory control of other sources. Ozone, PM<sub>10</sub> and PM<sub>2.5</sub> remain pollutants of concern in the Perth metropolitan region and are the focus of attention within the AQMP, particularly the management of domestic PM<sub>10</sub> and PM<sub>2.5</sub> sources. In regional areas, PM<sub>10</sub> and PM<sub>2.5</sub> are the pollutants of most significance with respect to the NEPM standards.

The data presented below, show that Western Australia has met the NEPM goals for all pollutants in 2016 except for daily averaged PM<sub>10</sub> at regional centres Albany, Collie and Geraldton and annual averaged PM<sub>2.5</sub> at regional centres Bunbury and Busselton.

Data from relevant monitoring stations for calendar year 2016 are presented in tabular form below to enable an evaluation of whether the NEPM standards and goal were met at each monitoring station. The standards, with accompanying definitions and explanations, appear in Schedule 2 of the NEPM. For averaging times shorter than one year, compliance with the NEPM goal is achieved if the standard for a pollutant is exceeded on no more than a specified number of days in a calendar year (one day per year for all pollutants except PM<sub>10</sub> and PM<sub>2.5</sub> which may not be exceeded unless the exceedance was directly associated with an exceptional event and at least 75% of data are captured in each quarter).

The data are presented in greater detail in the Annual Western Australia Air Monitoring Report available on the DWER website, along with the West Australian Monitoring Plan at <https://www.dwer.wa.gov.au/your-environment/air/203-air-quality-publications> along with the West Australian Monitoring Plan.

# CO

## Carbon monoxide

(NEPM standard 8 hours = 9.0ppm)

Station	Number of exceedances	NEPM goal compliance
<b>Perth</b>		
North East Metro	0	Met
North Metro	0	Met
South East Metro	0	Met

# NO<sub>2</sub>

## Nitrogen Dioxide

(NEPM standard: 1 hour = 0.12ppm, 1 year = 0.03ppm)

Station	1 Hour		1 Year	
	Number of exceedances	NEPM goal compliance	Annual average (ppm)	NEPM goal compliance
<b>Perth</b>				
North Metro	0	Met	0.006	Met
North East Metro	0	Met	0.006	Met
Outer North Coast	0	Met	0.003	Met
South Coast	0	Met	0.004	Met
Outer East Rural	0	Met	0.002	Met
South East Metro	0	Met	0.007	Met
Inner West Coast	0	Met	0.004	Met

O<sub>3</sub>

## Ozone

(NEPM standard: 1 hour = 0.10ppm, 4 hours = 0.08ppm)

Station	1 Hour		4 Hours	
	Number of exceedences	NEPM goal compliance	Number of exceedences	NEPM goal compliance
<b>Perth</b>				
North East Metro	0	Met	1	Met
Outer North Coast	0	Met	0	Met
South Coast	0	Met	0	Met
Outer East Rural	0	Met	0	Met
South East Metro	0	Met	0	Met
Inner West Coast	1	Met	1	Met

SO<sub>2</sub>

## Sulfur dioxide

(NEPM standard: 1 hour = 0.20ppm, 1 day = 0.08ppm, 1 year = 0.02ppm)

Station	1 hour		1 day		1 year	
	Number of exceedences	NEPM goal compliance	Number of exceedences	NEPM goal compliance	Annual average (ppm)	NEPM goal compliance
<b>Perth</b>						
South Metro	0	Met	0	Met	0.001	Met
South Coast	0	Met	0	Met	0.001	Met
South East Metro	0	Met	0	Met	0.003	Met

# Pb

## Lead

(NEPM standard 1 year = 0.50µg/m<sup>3</sup>)

Lead monitoring ceased on 31 December 2001 following the introduction of unleaded petrol. These management initiatives consequently resulted in sustained measurements at analytical limits of detection well below the standard.

# PM<sub>10</sub>

## Particles as PM<sub>10</sub>

(NEPM standard 1 day = 50µg/m<sup>3</sup>, 1 year = 25 µg/m<sup>3</sup>)

Station	1 day		1 year	
	Number of exceedences	NEPM goal compliance	Annual average (µg/m <sup>3</sup> )	NEPM goal compliance
<b>Perth</b>				
North East Metro <sup>1</sup>	0	Met	15.0	Met
North Metro <sup>1</sup>	0	Met	14.4	Met
South East Metro <sup>1</sup>	0	Met	15.7	Met
<b>Southwest</b>				
Albany <sup>1</sup>	6	Not met	17.5	Met
Bunbury <sup>1</sup>	2	Met	16.5	Met
Collie <sup>1</sup>	5	Not met	19.3	Met
<b>Midwest</b>				
Geraldton <sup>1</sup>	3	Not met	18.8	Met

1 - Tapered Element Oscillating Microbalance (TEOM) operating continuously (unadjusted for temperature) and includes the manufacturers recommended equivalency factor of 1.03x + 3.00.

# PM<sub>2.5</sub> Particles as PM<sub>2.5</sub>

(NEPM standard 1 day = 25µg/m<sup>3</sup>, 1 year = 8µg/m<sup>3</sup>)

Station	1 day		1 year	
	Number of exceedences	NEPM goal compliance	Annual average (µg/m <sup>3</sup> )	NEPM goal compliance
<b>Perth</b>				
North East Metro <sup>1</sup>	0	Met	7.7	Met
North Metro <sup>1</sup>	1	Met	7.5	Met
Outer North Coast <sup>1</sup>	2	Met	7.5	Met
South East Metro <sup>1</sup>	3	Met	8.0	Met
<b>Southwest</b>				
Bunbury <sup>1</sup>	6	Met	8.4	Not met
Busselton <sup>1</sup>	4	Met	8.1	Not met

1 - Tapered Element Oscillating Microbalance (TEOM) operating continuously (unadjusted for temperature) and includes the manufacturers recommended equivalency factor of 1.03x + 3.00.

## Relationship between location descriptors and monitoring station location/names

Location descriptor	Station Location
North East Metro	Caversham
North Metro	Duncraig
Outer North Coast	Quinns Rocks
South East Metro	South Lake

Location descriptor	Station Location
Outer East Rural	Rolling Green
South Coast	Rockingham
Inner West Coast	Swanbourne
South Metro	Wattleup



## Western Australia

*Report to the NEPC on the implementation of the National Environment Protection (Air Toxics) Measure for Western Australia by the Hon. Albert Jacob, MLA Minister for Environment; Heritage (21 March 2013 – 16 March 2017) and the Hon. Stephen Dawson, Minister for Environment; Disability Services (17 March 2017 to 30 June 2017 for the reporting year ended 31 December 2016)*

### **PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES**

On 1 July 2017, the Western Australian Department of Environment Regulation (DER) was amalgamated with two other departments: Department of Water (DOW) and the Office of the Environmental Protection Authority (OEPA) and was renamed the Department of Water and Environmental Regulation (DWER).

#### **Legislative, regulatory and administrative framework**

In Western Australia, the National Environment Protection (Air Toxics) Measure is implemented by the Department of Water and Environmental Regulation (DWER) under the National Environment Protection Council (WA) Act 1996 and the Environmental Protection Act 1986.

Air toxics emissions are also managed through the Perth Air Quality Management Plan (AQMP), a non-statutory mechanism established by the Western Australian Government. The objective of the AQMP is to ensure that clean air is achieved and maintained throughout the Perth metropolitan region. The AQMP identifies that, to achieve an overall improvement in Perth's air quality, further studies are required to determine major sources and concentrations of air toxics in the Perth metropolitan region. The initiatives within the AQMP are complementary to the Air Toxics NEPM.

#### **Implementation issues arising**

The Department of Water and Environmental Regulation (DWER) has acquired a Remote Air Pollution Infrared Detector (RAPID) which is undergoing field trials in the Perth metropolitan region to determine its suitability for air quality investigations. The RAPID provides the capability of detecting over 80 air pollutants through the use of an infrared detector at a distance of up to 5km. The unit has a sensor which rotates through 360 degrees and scans the air to detect air pollutants including air toxics such as benzene and toluene. The system uses a Fourier Transform Infrared method similar to the Open Path Infrared (OP-FTIR) Spectrometer successfully used by DWER for recent air quality studies in Midland and Kwinana.

### **PART 2 — ASSESSMENT OF NEPM EFFECTIVENESS**

The NEPM has been effective in highlighting the need to investigate air toxics concentrations and providing monitoring investigation levels to which the results can be compared. The monitoring investigation levels provide a nationally consistent benchmark for assessing and comparing the concentrations of ambient air toxics from diverse monitoring sites and are an effective tool to inform government policy and programs on appropriate abatement actions.

Monitoring for air toxics in Western Australia has primarily been undertaken as part of specific studies. This has meant there are often a number of objectives to be satisfied when developing and implementing the monitoring programs. As a consequence, the NEPM monitoring protocol has not always been followed. However, the monitoring results from these studies are invaluable when assessing ambient air toxic concentrations across Western Australia.

An updated emissions inventory is currently being developed for the Perth metropolitan region. This inventory will include air toxics and will provide additional information in identifying and prioritising air toxic sources in this area.

### **Reporting of monitoring of air toxics**

The results of NEPM-compliant monitoring as well as the additional complementary air quality studies in 2007–08 and 2009 indicated that air toxics levels in Perth are low compared to international standards and below NEPM monitoring investigation levels. These studies have been summarised and published in the *Background Air Quality Monitoring in Kwinana 2005–10* technical report, which is available on the DWER website [www.dwer.wa.gov.au](http://www.dwer.wa.gov.au). Owing to these findings, no additional NEPM-compliant monitoring has been undertaken during the past 12 months.

### **Reporting on Assessment and Action if any planned or taken to manage air toxics**

Past monitoring has indicated that levels of air toxics are below monitoring investigation levels and no further action is currently planned.

### **Repeat Identification of Stage 1 and Stage 2 Sites**

No repeat identification of Stage 1 and Stage 2 sites is currently planned. The initial desktop analysis identified 13 Stage 1 sites for formaldehyde, of which three met the ranking criteria for polycyclic aromatic hydrocarbons Stage 1 sites. No Stage 1 sites were identified for benzene, toluene or xylene. Two priority categories (traffic volume and wood heater density) were used to identify two Stage 2 sites. The results of the air toxics monitoring at these two Stage 2 sites showed that the annual average concentrations for formaldehyde and benzo[ $\alpha$ ]pyrene were below NEPM monitoring investigation levels. As these two sites are representative of the Stage 1 sites initially identified, repeat identification of Stage 1 and Stage 2 sites is not needed at this time.

## Western Australia

*Report to the NEPC on the implementation of the National Environment Protection (Diesel Vehicle Emissions) Measure for Western Australia by the Hon. Albert Jacob, MLA Minister for Environment; Heritage (21 March 2013 – 16 March 2017) and the Hon. Stephen Dawson, MLC Minister for Environment; Disability Services (17 March 2017 to 30 June 2017) for the reporting year ended 30 June 2017.*

### **PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES**

On 1 July 2017, the Western Australian Department of Environment Regulation (DER) was amalgamated with two other departments: Department of Water (DOW) and the Office of the Environment Protection Authority (OEPA) and was renamed the Department of Water and Environmental Regulation (DWER).

In Western Australia, the National Environment Protection (Diesel Vehicle Emissions) Measure (Diesel NEPM) is implemented by the Department of Water and Environmental Regulation (DWER) under the *National Environment Protection Council (WA) Act 1996* and the *Western Australian Environmental Protection (WA) Act 1986*.

Vehicle emissions in Western Australia are regulated under the *Road Traffic (Vehicles) Act 2012* and *Road Traffic (Vehicles) Regulations 2014*, which are administered by the Department of Transport (DoT). The 'ten-second rule' in the regulations is the primary mechanism used to target visually polluting diesel and petrol vehicles.

In addition to smoky vehicle regulation, DWER operates a remote sensing device (RSD) that measures on-road vehicle emissions and provides immediate feedback to drivers on their vehicle emissions relative to the wider vehicle fleet. The data collected by the RSD is used to track emission trends from vehicle groups of concern and inform vehicle policy development.

The Western Australian Government's Perth Air Quality Management Plan (AQMP) aims to ensure that clean air is achieved and maintained throughout the Perth metropolitan region. The AQMP identifies that the management of emissions from in-service petrol and diesel vehicles is critical to achieving clean air, and contains a range of initiatives that target on-road vehicles. The implementation of vehicle emissions reduction initiatives in the AQMP are largely complementary to the outcomes of the Diesel NEPM.

### **PART 2 — ASSESSMENT OF NEPM EFFECTIVENESS**

DWER undertakes roadside monitoring to assess the health of the Perth vehicle fleet. No monitoring was undertaken in the 2016-2017 reporting year. The CleanRun On-Road Vehicle Emissions Monitoring Report 2016 for monitoring undertaken during March and April 2016 was published in January 2017 and is available [https://www.dwer.wa.gov.au/images/documents/our-work/programs/cleanrun/Cleanrun\\_on-road\\_vehicle\\_emissions\\_monitoring\\_16.pdf](https://www.dwer.wa.gov.au/images/documents/our-work/programs/cleanrun/Cleanrun_on-road_vehicle_emissions_monitoring_16.pdf).

Western Australia does not have in-service emissions standards to compare RSD sampling results against.

Implementation of vehicle emissions reduction initiatives of the AQMP and the CleanRun Program are the foundation of vehicle emissions reduction strategies undertaken by DWER. DWER will continue to work with DoT, other government agencies and industry associations to investigate and implement motor vehicle related policies and management actions where appropriate to reduce the impact of diesel vehicle emission in Western Australia.

## Smoky vehicles program

In 2016-2017 the Smoky Vehicle Reporting Program (SVRP) received 480 reports, which is an average of 40 reports per month, representing a five per cent increase in reports from 2015-2016.

Prior to contacting reported vehicles, DWER and DoT verify reports by comparing reported vehicle details against the DoT vehicle registration database, discarding reports if details do not match. 424 advisory letters were sent to reported vehicle owners in 2016-2017 (88.3 per cent valid report rate).

Of the 414 letters issued, 292 responses were received (70.5 per cent return rate)<sup>1</sup>. Table 1 summarises the responses received for vehicles reported from July 2016 to June 2017.

**Table 1. Responses from owners of reported vehicles**

Response	2014-2015	2015-2016	2016-2017
Reports received	268	455	480
Letters sent	N/A	372	424
Responses received	146	282	292
Vehicle repaired	57 (48%)	127 (45.0%)	136 (46.6%)
Vehicle does not smoke	45 (38%)	90 (31.9%)	96 (32.9%)
Can't afford to repair	1 (<1%)	3 (1.1%)	6 (2.1%)
Disposed of vehicle	3 (2%)	8 (2.8%)	16 (5.5%)
Wrong vehicle	6 (5%)	11 (3.9%)	19 (6.5%) <sup>2</sup>
Other	8 (7%)	40 (14.2%)	19 (6.5%)
Petrol	35 (30%)	57 (20.2%)	49 (16.8%)
Diesel	71 (60%)	194 (68.8%)	208 (71.2%)
LPG	2 (<2%)	1 (0.4%)	0 (0%)
Fuel type not reported	13 (11%)	30 (10.6%)	35 (12.0%)

Response data is seen to be consistent over the last three reporting years with just under half of the responses indicating they had effected repairs on their vehicle after receiving the letter and approximately one third advising their vehicle was not in breach of the 10 second rule.

Diesel vehicles continue to represent the most significant vehicle group reported, with the proportion of petrol vehicles reported falling each year.

<sup>1</sup> At the time of reporting June reports had been sent to vehicle owners with the last of the responses still being received. Actual return rate will be slightly higher than reported, but still similar.

<sup>2</sup> A mailing error resulted in several vehicle owners receiving incorrect vehicle details (though registration and location details were still correct). Outside this event, only one wrong vehicle response was received.

In 2016-2017 sixteen vehicles were reported on more than one occasion. No vehicles were reported more than twice. Six of these vehicles advised the vehicle was being investigated for repairs, two advised the vehicle was not smoky, and two advised they had disposed of their vehicle since being reported. Six vehicles did not provide a response to their second letter.

### **Diesel vehicle emission testing and repair programs**

DER operates a remote sensing device (RSD) that provides an efficient, cost effective method of characterising vehicle emissions and raising community awareness of vehicle emissions.

The RSD was not deployed in the 2016-2017 reporting year.

### **Audited maintenance programs for diesel vehicles**

The National Heavy Vehicle Accreditation Scheme (NHVAS) encourages heavy vehicle operators to take responsibility for servicing their vehicles and ensuring vehicles are compliant with scheme accreditation requirements.

In Western Australia, operators of certain types of heavy vehicles must become accredited to gain a permit or notice from Main Roads Western Australia. The majority of these vehicles use diesel as their primary fuel source. Western Australian Heavy Vehicle Accreditation is mandatory for individuals and organisations which require a permit or notice to perform any transport task as part of a commercial business or for profit within Western Australia, including interstate operators.

There are currently two accreditation modules - Fatigue and Vehicle Maintenance, which operators are required to incorporate into their daily work practices. Maintenance management encourages heavy vehicle operators to take responsibility for servicing their vehicles regularly and ensuring their vehicles are safe at all times. The standards for this module are similar to that required under the nationally endorsed NHVAS.

Accredited operators must ensure their vehicles are maintained and meet all relevant safety standards. A record of the maintenance and servicing work done to each vehicle must be kept to prove the vehicles are safe at all times.

Compliance and enforcement activities are key factors in ensuring effective and safe management of heavy vehicles on the road network. Transport inspectors in Western Australia are authorised by law to intercept and inspect vehicles for roadworthiness, load security and vehicle licencing conditions. Compliance also performs the important role of educating and working with the transport industry and other agencies and stakeholders to improve standards.

### **Diesel vehicle retrofit programs**

The Western Australia government does not operate a diesel vehicle retrofit program.

### **Other programs**

#### **Communication**

The CleanRun Program was developed to make the overall vehicle emission reduction actions immediately identifiable and to facilitate the promotion of key Diesel NEPM messages in Western Australia. Web pages, fact sheets and brochures are developed and produced to provide information on the CleanRun Program. These documents are available on DER's website

<https://www.dwer.wa.gov.au/our-work/programs/162-cleanrun>. Attention continues to focus on promoting Diesel NEPM messages through established programs.

### **CleanRun EcoDrive**

The CleanRun EcoDrive program aims to reduce diesel emissions through encouraging driver behaviour change.

CleanRun EcoDrive provides a resource package for fleet operators to reduce fuel use and related emissions by working with drivers to make small changes to their driving habits. Eco driving incorporates a number of safer, smarter driving techniques that maximise fuel economy by operating the engine as efficiently as possible.

The package includes the resources to develop an EcoDrive training program in-house, including driver training materials developed by experts in the transport industry. It is estimated that fleet operating organisations who implement the CleanRun EcoDrive program can reduce fuel use and related emissions by up to 20 per cent. All resources are available to download free-of-charge from DERs website <https://www.dwer.wa.gov.au/our-work/programs/161-cleanrun-ecodrive>. DER worked with industry partners to develop the resources.

## Western Australia

Report to the NEPC on the implementation of the National Environment Protection (Movement of Controlled Waste between States and Territories) Measure for Western Australia by the Hon. Albert Jacob, MLA Minister for Environment; Heritage (21 March 2013 – 16 March 2017) and the Hon. Stephen Dawson, MLC Minister for Environment; Disability Services (17 March 2017 to 30 June 2017) for the reporting year ended 30 June 2017.

### PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES

On 1 July 2017, the Western Australian Department of Environment Regulation (DER) was amalgamated with two other departments: Department of Water (DOW) and the Office of the Environmental Protection Authority (OEPA) and was renamed the Department of Water and Environmental Regulation (DWER). DWER is responsible for administering the implementation of the NEPM in Western Australia.

Western Australia is reviewing the *Environmental Protection (Controlled Waste) Regulations 2004* to streamline processes for the regulation of the transportation of controlled wastes.

### PART 2 — ASSESSMENT OF NEPM EFFECTIVENESS

**Table 1: Number of consignment authorisations issued by Western Australia**

Reporting Year	Consignment authorisations issued
2015–16	4
2016–17	10

**Table 2: Quantity of controlled waste into Western Australia for the period**

1 July 2016 to 30 June 2017

Tonnes per waste category by State/Territory

Code	Description	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ext-Terr*	Total (tonnes)
A	Plating & heat treatment				n/a				15.95		15.95
B	Acids				n/a						0
C	Alkalis				n/a						0
D	Inorganic chemicals				n/a						0
E	Reactive chemicals				n/a						0
F	Paints, resins, inks organic sludges				n/a						0
G	Organic solvents				n/a						0
H	Pesticides				n/a						0
J	Oils				n/a	41			361		402
K	Putrescible / organic waste				n/a				356		356
L	Industrial washwater				n/a						0

Code	Description	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ext-Terr*	Total (tonnes)
M	Organic chemicals				n/a				35.7		35.7
N	Soil / sludge				n/a						0
R	Clinical & pharmaceutical				n/a						0
T	Misc.				n/a						0
<b>State Totals (tonnes)</b>		0	0	0	0	41	0	0	768.7	0	809.65

**Table 3: Discrepancies in movements of controlled waste into Western Australia for the period  
1 July 2016 to 30 June 2017  
Percentage of total movements**

Discrepancy Type	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ext Terr*
Consignment non-arrival				n/a					
Transport without authorisation				n/a					
Non-matching documentation				n/a					
Waste data				n/a					

**Table 4: Number of movements of controlled waste into Western Australia for the period  
1 July 2016 to 30 June 2017**

NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ext Terr*
			n/a	3			34	



## Western Australia

Report to the NEPC on the implementation of the National Environment Protection (National Pollutant Inventory) Measure for Western Australia by the Hon. Albert Jacob, MLA Minister for Environment; Heritage (21 March 2013 – 16 March 2017) and the Hon. Stephen Dawson, MLC Minister for Environment; Disability Services (17 March 2017 to 30 June 2017 for the reporting year ended 30 June 2017).

### PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES

On 1 July 2017, the Western Australian Department of Environment Regulation (DER) was amalgamated with two other departments: Department of Water (DOW) and the Office of the Environmental Protection Authority (EPA) and was renamed the Department of Water and Environmental Regulation (DWER).

In Western Australia, DWER is responsible for implementing the National Environment Protection (National Pollutant Inventory) Measure under the *National Environment Protection Council (WA) Act 1996*, the *Environmental Protection Act 1986* and the Environmental Protection (NEPM-NPI Regulations 1998). The implementation of the NEPM continues to be successful in Western Australia.

DWER has identified opportunities for enhanced administration of the NPI NEPM through the collection and reporting of aggregated emissions data. Work on the Perth Air Emissions Study 2011-12 was undertaken during the period to update the aggregated emissions data for the greater Perth metropolitan region.

### PART 2 — ASSESSMENT OF NEPM EFFECTIVENESS

Participation Levels	Feedback from the Community, Industry and Government	Implementation Activity Effectiveness
<b>PUBLIC</b>		
	<ul style="list-style-type: none"> <li>Environment groups and the media utilise NPI NEPM data where environmental issues of concern are identified.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>INDUSTRY</b>		
<ul style="list-style-type: none"> <li>811 reports for 2015–16</li> <li>797 reports for 2014–15</li> <li>41 new reporters</li> <li>No new sectors reporting</li> <li>No confidentiality claims submitted</li> </ul>	<ul style="list-style-type: none"> <li>Widespread compliance with the online reporting system with 99 per cent uptake in WA for 2015-16 (three per cent increase).</li> <li>Some smaller facilities require above-average reporting guidance due to the lack of dedicated personnel.</li> <li>Major industrial facilities maintain awareness of community interest in their emissions, and ensure reports accurately reflect site emissions.</li> <li>Support provided by DER staff acknowledged by reporters.</li> </ul>	<ul style="list-style-type: none"> <li>Training sessions provided to industry reporters included information sessions, a webinar and online reporting training.</li> <li>Reporters from other jurisdictions were invited and attended the webinar.</li> <li>Continued to follow-up potential reporters in several industry sectors.</li> <li>Reporters regularly reminded of reporting deadlines and supplied additional reporting information to that available on website.</li> </ul>

Participation Levels	Feedback from the Community, Industry and Government	Implementation Activity Effectiveness
<b>GOVERNMENT</b>		
<ul style="list-style-type: none"> <li>• 811 desktop audits</li> <li>• 10 on-site audits</li> <li>• No regulatory actions</li> </ul>	<ul style="list-style-type: none"> <li>• DER uses the NPI NEPM to inform policy development, program implementation and to support regulatory activity.</li> <li>• DER uses NPI NEPM data for the development of an emissions inventory for the greater Perth metropolitan region.</li> <li>• NPI NEPM data is used to identify and rank WA's major emitters with comparisons made with national data.</li> </ul>	<ul style="list-style-type: none"> <li>• A dashboard was developed for DER licensing personnel providing easier use and analysis of emissions reported by licensed premises.</li> <li>• DER uses toxic equivalency potentials to support the assessment of risk.</li> </ul>

## Western Australia

*Report to the NEPC on the implementation of the National Environment Protection (Used Packaging Materials) Measure for Western Australia by the Hon. Albert Jacob, MLA Minister for Environment; Heritage (21 March 2013 – 16 March 2017) and the Hon. Stephen Dawson, MLC Minister for Environment; Disability Services (17 March 2017 to 30 June 2017) for the reporting year ended 30 June 2017.*

### **PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES**

On 1 July 2017, the Western Australian Department of Environment Regulation (DER) was amalgamated with two other departments: Department of Water (DOW) and the Environmental Protection Authority (EPA) and was renamed the Department of Water and Environmental Regulation (DWER).

- In Western Australia, the National Environment Protection (Used Packaging Materials) Measure (NEPM UPM) is implemented by the Department of Water and Environmental Regulation (DWER) under the *National Environment Protection Council (WA) Act 1996*, the *Environmental Protection Act 1986* and the Environmental Protection (NEPM-UPM) Regulations 2013.
- Whilst the new Australian Packaging Covenant was being considered it was agreed between jurisdictions that no compliance activities would take place until the future of the Covenant was determined.

### **PART 2 — ASSESSMENT OF NEPM EFFECTIVENESS**

There was no NEPM-UPM activity undertaken while the new APC was being considered (leading up to 1 Jan). In addition, no companies were referred to Western Australia during the reporting period, therefore there was no compliance activity undertaken during this time.

Reporting Year	Number of covenant signatories
2015–16	47
2016–17	43

#### **Recovery Data**

No Western Australian based companies have been required to provide records for auditing.

#### **Supporting Data**

In August 2015, a meeting of jurisdictions and industry resolved that jurisdictions would not carry out the brand owner audit during the reporting period, and that industry would take responsibility for brand owner audits from 1 July 2016.

#### **Complaints, Investigations and Prosecutions**

No complaints were received, or investigations or prosecutions undertaken, during the 2016–17 reporting period.

**Statement of Interpretation of the Information**

Not applicable

**Local Government Data**

Local government data will be available at [www.dwer.wa.gov.au](http://www.dwer.wa.gov.au) from June 2018.

## Western Australia

*Report to the NEPC on the implementation of the National Environment Protection (Assessment of Site Contamination) Measure for Western Australia by the Hon. Albert Jacob, MLA Minister for Environment; Heritage (21 March 2013 – 16 March 2017) and the Hon. Stephen Dawson, Minister for Environment; Disability Services (17 March 2017 to 30 June 2017) for the reporting year ended 30 June 2017.*

### **PART 1 — IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES**

On 1 July 2017, the Western Australian Department of Environment Regulation (DER) was amalgamated with two other departments: the Department of Water (DOW) and the Office of the Environmental Protection Authority (OEPA) and was renamed the Department of Water and Environmental Regulation (DWER).

- The Department of Environment Regulation (DER) is responsible for regulating the assessment of site contamination in Western Australia (WA) under the *Contaminated Sites Act 2003* (CS Act) and the *Contaminated Sites Regulations 2006*.
- The NEPM and other relevant technical guidelines are taken into account by DWER in regulating contaminated sites, by contaminated sites auditors when conducting site audits, and by environmental consultants when assessing the risk to human health and the environment from known and suspected contaminated sites.
- During the year ended 30 June 2017, 374 known or suspected contaminated sites were reported to DWER compared with 166 in the previous year. In the same period, DWER received 72 mandatory audit reports related to contaminated sites. These reports were submitted to comply with conditions imposed under a written law, generally a Ministerial or planning condition, or as part of the investigation or remediation of a contaminated or possibly contaminated site.
- Compliance with the NEPM and departmental guidelines is assessed in the site classification/reclassification process under the CS Act. The Department classified 411 sites (including reclassifications) during the year, bringing the total number of classified sites to 3,549. As of 30 June 2017, 920 of these sites were listed on the public contaminated sites database and require remediation or restrictions on the use of the land and/or groundwater to protect public health and/or the environment and/or environmental values.
- Environmental practitioner's awareness of the amended NEPM requirements has continued to improve in WA and as a result, the assessment reports submitted to DER show more consistency in the application of the guidance.

### **PART 2 — ASSESSMENT OF NEPM EFFECTIVENESS**

DWER regularly liaises with environmental regulators in other jurisdictions to ensure a nationally consistent approach can be developed for any new implementation issues as they arise.

The limited number of Ecological Investigation Levels (EILs) provided in the NEPM is a major limitation identified in consistency in implementation. Although the NEPM provides a detailed methodology in Schedule B5b for developing new EILs, this is rarely done in practice for individual site assessments due to the time and effort required to carry out an appropriately detailed literature search to identify and assess relevant ecotoxicity data.

To ensure that the NEPM continues to provide authoritative guidance where site contamination has occurred, it is important that the guidance is periodically reviewed in the context of advances in scientific knowledge and updated technical information. The inclusion of relevant supporting material in the NEPM Tool Box assists in promoting a nationally consistent approach to emerging issues. The inclusion of new EILs in the Tool Box, derived using the NEPM methodology by appropriately qualified experts and endorsed by environmental regulators, would be consistent with the purpose and desired environmental outcome of the NEPM.

## Chair's foreword

It has been an honour to be the Chair of the National Environment Protection Council for the 2016–17 year.

The Council continues to play an important role in making sure that there are appropriate environmental measures in place to protect all Australians. National Environment Protection Measures are a means for achieving this. The measures cover air, site contamination, hazardous waste, pollutants and used packaging.

Australian governments have worked to implement strategies which have significantly improved Australia's air quality with positive environmental and health impacts. Amendments to strengthen national reporting standards for particle pollution came into effect in March 2016 and the states and territories have adopted and started reporting against these standards.

Further work is being carried out to review the reporting standards for ozone, nitrogen dioxide and sulfur dioxide. The project, which is being led by Victoria, will also consider new evidence on the health effects of air pollution.

In 2016–17, for the first time, the Australian Government published the National Pollutant Inventory dataset on the whole-of-government platform, [www.data.gov.au](http://www.data.gov.au). The National Pollutant Inventory provides emission estimates for 93 toxic substances and the source and location of these emissions.

Per- and poly-fluoroalkyl substances (PFAS) remained a focus for all states and territories. The release of these chemicals into the environment is an emerging concern globally. Australian governments (led by Victoria and the Commonwealth) are developing the PFAS National Environmental Management Plan to provide nationally consistent environmental guidance and standards for the investigation and management of PFAS contamination.

I thank all Council members and those who have supported the work of the Council in 2016–17. I look forward to continuing pursuit of consistent environmental standards for the benefit of all Australians.



**Josh Frydenberg**  
Chair  
National Environment Protection Council



# Members of the National Environment Protection Council

From 1 July 2016 to 30 June 2017

Jurisdiction	Member	Duration of membership
<b>Commonwealth</b>	The Hon Josh Frydenberg MP Minister for the Environment and Energy	19 July 2016–30 June 2017
	The Hon Greg Hunt MP Minister for the Environment	18 September 2013–18 July 2016
<b>New South Wales</b>	The Hon Gabrielle Upton MP NSW Minister for the Environment	30 January 2017–30 June 2017
	The Hon Mark Speakman MP NSW Minister for the Environment	2 April 2015–30 January 2017
<b>Victoria</b>	The Hon Lily D'Ambrosio MP Minister for Energy, Environment and Climate Change	Full year
<b>Queensland</b>	The Hon Steven Miles MP Minister for Environment and Heritage Protection Minister for National Parks and the Great Barrier Reef	Full year
<b>Western Australia</b>	The Hon Stephen Dawson MLC Minister for Environment	17 March 2017–30 June 2017
	The Hon Albert Jacob MLA Minister for Environment; Heritage	21 March 2013–17 March 2017
<b>South Australian</b>	The Hon Ian Hunter MLC Minister for Sustainability, Environment and Conservation	Full year
<b>Tasmania</b>	The Hon Matthew Groom MP Minster for Environment, Parks, and Heritage	Full year
<b>Australian Capital Territory</b>	Mr Mick Gentleman MLA Minister for the Environment and Heritage	15 October 2016–30 June 2017
	Mr Simon Corbell MLA Minister for the Environment	7 November 2008–14 October 2016
<b>Northern Territory</b>	The Hon Lauren Moss MLA Minister for Environment and Natural Resources	12 September 2016–30 June 2017
	The Hon Michael Gunner Minister for the Environment	31 August 2016–11 September 2016
	The Hon Gary John Higgins MLA Minister for the Environment	12 December 2014–27 August 2016



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# Overview

## ABOUT THE NATIONAL ENVIRONMENT PROTECTION COUNCIL

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In 1992, the Commonwealth and the states and territories entered into an Intergovernmental Agreement on the Environment, providing for the establishment of a body to determine national environment protection measures. This resulted in the creation of the *National Environment Protection Council Act 1994 (Cth)* (the NEPC Act), which formally established the National Environment Protection Council as a body in 1995. Each state and territory has enacted mirror legislation. The Council consists of environment ministers from all jurisdictions, including the Commonwealth.

The objects of the NEPC Act are to ensure that, through the establishment and operation of the Council:

- people enjoy the benefit of equivalent protection from air, water or soil pollution and from noise, wherever they live in Australia
- decisions of the business community are not distorted, and markets are not fragmented, by variations between participating jurisdictions in relation to the adoption or implementation of major environment protection measures.

The Council has two primary functions under the NEPC Act:

1. to make National Environment Protection Measures
2. to assess and report on the implementation and effectiveness of National Environment Protection Measures in participating jurisdictions.

National Environment Protection Measures are a set of legislative instruments designed to assist in protecting or managing particular aspects of the environment, in a uniform and consistent way across all jurisdictions.

Since 1 July 2014 the Council has received operational, administrative and corporate support from the NEPC Business Services Team within the Australian Government Department of the Environment and Energy (the Department). This followed decisions to abolish the Standing Council on the Environment and Water in 2013 and the NEPC Service Corporation in 2014.

## THE NATIONAL ENVIRONMENT PROTECTION COUNCIL COMMITTEE

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The National Environment Protection Council (NEPC) Committee was established under the NEPC Act. The Committee consists of a NEPC Executive Officer, and a nominee of each member of the Council. The Committee is responsible for:

- assisting and advising the Council in the performance of its functions
- supporting the Council in implementing the NEPC Act
- overseeing the management of the Council's budget.

## THE NATIONAL ENVIRONMENT PROTECTION COUNCIL EXECUTIVE OFFICER

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The NEPC Act requires the appointment of a NEPC Executive Officer by the Council, for a period not exceeding five years. The Executive Officer is required to provide assistance and support to the Council and the Committee.

For the 2016–17 reporting year, the NEPC Executive Officer was Dr David Swanton.

## INTER-JURISDICTIONAL RELATIONSHIPS

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The Meeting of Environment Ministers is an ad hoc forum, consisting of environment ministers from each jurisdiction including the Commonwealth. The Meeting of Environment Ministers is the primary multi-jurisdictional forum in which national environmental issues are considered. As membership of the Council also consists of all Australian environment ministers, the Meetings of Environment Ministers are held in conjunction with meetings of the Council.

## GOVERNANCE STRUCTURE OF THE COUNCIL AND THE MEETING OF ENVIRONMENT MINISTERS

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The following streamlined approach to multi-jurisdictional environmental work has been agreed by Environment Ministers:

- Meetings of Environment Ministers are to occur on an ad hoc basis and run concurrently with meetings of the National Environment Protection Council as required. Agendas are to be focused on issues requiring multi-jurisdictional collaboration or decision.
- Meetings of the heads of jurisdictional environment agencies (Senior Officials Group) to be held on a regular basis—at least annually, and concurrently with NEPC Committee meetings.
- Matters under consideration will be organised into three key streams of work:
  - strategic issues
  - key existing projects relating to waste and chemicals and the National Plan for Clean Air
  - ongoing priorities relating to responsibilities under the NEPC Act, such as National Environment Protection Measures.
- Ongoing communication between the Senior Officials/NEPC Committee groups and the Heads of Environmental Protection Agencies network. Where relevant, the Heads of Environment Protection Agencies may be asked to take a role in progressing agenda items for the Senior Officials/NEPC Committee groups.
- New Zealand and the Australian Local Government Association are represented by invitation to Meetings of Environment Ministers when relevant subject matter is to be discussed.

## ABOUT NATIONAL ENVIRONMENT PROTECTION MEASURES

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The NEPC Act recognises the importance of communities and business in protecting Australia's environment, and that national outcomes are best achieved through regionally tailored approaches.

National Environment Protection Measures (NEPMs), created under the NEPC Act, provide an agreed nationally consistent framework of goals, standards, guidelines and protocols for protecting and managing particular aspects of the environment, including air, water, noise, site contamination, hazardous waste and recycling. A NEPM is a Commonwealth legislative instrument. Once a NEPM is made or varied, its implementation is the prerogative of each jurisdiction. Regulation is just one of a suite of implementation tools a jurisdiction may use.

National Environment Protection Measures provide a single national framework to address one or more environmental issues, with the flexibility for local implementation to take into account variability between jurisdictions. This provides certainty and consistency for business and the community in the management of these environmental issues, while reducing the need for regulation.

There are seven National Environment Protection Measures:

**Air Toxics**—sets out a nationally consistent approach to collection of data on toxic air pollutants (such as benzene) in order to deliver a comprehensive information base from which standards can be developed to manage these air pollutants to protect human health.

**Ambient Air Quality**—establishes a nationally consistent framework for monitoring and reporting on air quality, including the presence of pollutants such as carbon monoxide, lead and particulates. A variation to this NEPM took effect in January 2016.

**Assessment of Site Contamination**—provides a nationally consistent approach to the assessment of site contamination to ensure sound environmental management practices by regulators, site assessors, environmental auditors, landowners, developers and industry. It provides authoritative guidance to practitioners in this field.

**Diesel Vehicle Emissions**—supports reducing pollution from diesel vehicles. Several jurisdictions operate a suite of programs to reduce exhaust emissions from diesel vehicles.

**Movement of Controlled Waste**—operates to minimise potential environmental and human health impacts related to the movement of certain waste materials, by ensuring that waste to be moved between states and territories is properly identified, transported and handled in ways consistent with environmentally-sound management practices.

**National Pollutant Inventory**—provides a framework for collection and dissemination of information to improve ambient air and water quality, minimise environmental impacts associated with hazardous wastes and improve the sustainable use of resources.

**Used Packaging Materials**—operates to minimise environmental impacts of packaging materials, through design (optimising packaging to use resources more efficiently), recycling (efficiently collecting and recycling packaging) and product stewardship (demonstrating commitment by stakeholders).

## GOVERNANCE

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Financial management, work health and safety matters, fraud compliance and risk management are all covered by both the Commonwealth and the Department of the Environment and Energy's policies and procedures and are reported against in the Department's annual report.

No freedom of information requests were received during the reporting year.

## FINANCIAL PERFORMANCE

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Detailed financial matters are contained in the financial statements within the Department of the Environment and Energy 2016–17 annual report.

## PROCUREMENT AND CONSULTANCIES

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All such activities are undertaken in accordance with relevant Commonwealth requirements, including legislation, policies and procedures. The NEPC business services section strives to ensure the core principle of value for money in all of the NEPC procurement activities.

NEPC report on the implementation of the  
National Environment  
Protection (Air Toxics)  
Measure

# National Environment Protection (Air Toxics) Measure

## PART 1 GENERAL INFORMATION

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### National Environment Protection Measure details

**Title:** National Environment Protection (Air Toxics) Measure

**Made by Council:** 3 December 2004

**Commencement date:** 20 December 2004 (advertised in the *Commonwealth of Australia Special Gazette* No. S 52904, 20 December 2004)

### AIR TOXICS

### NEPM goal (or purpose)

The goal of the National Environment Protection (Air Toxics) Measure is set out in clause 5 of the Measure:

*The national environment protection goal of this Measure is to improve the information base regarding ambient air toxics within the Australian environment in order to facilitate the development of standards following a Review of the Measure within eight years of its making.*

### Desired environmental outcomes

The desired environmental outcome of the National Environment Protection (Air Toxics) Measure is set out in clause 6 of the Measure:

*The desired environmental outcome of this Measure is to facilitate management of air toxics in ambient air that will allow for the equivalent protection of human health and well-being, by:*

- 1. providing for the generation of comparable, reliable information on the levels of toxic air pollutants ('air toxics') at sites where significantly elevated concentrations of one or more of these air toxics are likely to occur ('Stage 1 sites') and where the potential for significant population exposure to air toxics exists ('Stage 2 sites')*
- 2. establishing a consistent approach to the identification of such sites for use by jurisdictions*
- 3. establishing a consistent frame of reference ('monitoring investigation levels') for use by jurisdictions in assessing the likely significance of levels of air toxics measured at Stage 2 sites*
- 4. adopting a nationally consistent approach to monitoring air toxics at a range of locations (e.g. near major industrial sites, major roads, areas affected by wood smoke).*

### Evaluation criteria

The effectiveness of the National Environment Protection (Air Toxics) Measure has been assessed against the evaluation criteria for this NEPM.

## PART 2 IMPLEMENTATION OF THE NATIONAL ENVIRONMENT PROTECTION MEASURE AND ANY SIGNIFICANT ISSUES

This part provides a summary of jurisdictional reports on implementation and the Council's overall assessment of the implementation of the NEPM.

### Legislative, regulatory and administrative framework

Table 1: Summary of implementation frameworks

Jurisdiction	Summary of implementation frameworks
Commonwealth	<ul style="list-style-type: none"> <li>The NEPM is implemented administratively.</li> </ul>
New South Wales	<ul style="list-style-type: none"> <li>The NEPM is implemented under the Protection of the Environment Operations (Clean Air) Regulation 2010 and the <i>Protection of the Environment Operations Act 1997</i>.</li> </ul>
Victoria	<ul style="list-style-type: none"> <li>The key legislative instrument is the State Environment Protection Policy (Air Quality Management).</li> </ul>
Queensland	<ul style="list-style-type: none"> <li>The NEPM is implemented under the <i>Environmental Protection Act 1994</i>, the Environmental Protection Regulation 2008, and the Environmental Protection (Air) Policy 2008.</li> </ul>
Western Australia	<ul style="list-style-type: none"> <li>The NEPM is implemented under the <i>National Environment Protection Council (Western Australia) Act 1996</i>, the <i>Environmental Protection Act 1986</i> and by programs in the Perth Air Quality Management Plan.</li> </ul>
South Australia	<ul style="list-style-type: none"> <li>The NEPM operates as an Environment Protection Policy under the <i>Environment Protection Act 1993</i>.</li> </ul>
Tasmania	<ul style="list-style-type: none"> <li>The NEPM is a state policy under the <i>State Policies and Projects Act 1993</i>. The management of air toxics is included in the Tasmanian Air Quality Strategy 2006.</li> <li>Implementation is through the Environment Protection Policy (Air Quality) 2004 and the <i>Environmental Management Pollution Control Act 1994</i>.</li> </ul>
Australian Capital Territory	<ul style="list-style-type: none"> <li>The NEPM is implemented under the <i>Environment Protection Act 1997</i>.</li> </ul>
Northern Territory	<ul style="list-style-type: none"> <li>The key legislative instruments are the <i>Waste Management and Pollution Control Act</i> and the <i>National Environment Protection Council (Northern Territory) Act 2004</i>.</li> </ul>

### Implementation issues arising

Table 2 summarises the implementation issues that arose throughout the 2016 reporting year (this NEPM has a calendar year reporting requirement). For implementation activities refer to jurisdictional reports as listed in Part 5.



Table 2: Summary of implementation issues arising

Jurisdiction	Summary of implementation issues arising
Commonwealth	<ul style="list-style-type: none"> <li>No monitoring undertaken because the NEPM is implemented administratively.</li> <li>No issues reported.</li> </ul>
New South Wales	<ul style="list-style-type: none"> <li>No issues reported.</li> </ul>
Victoria	<ul style="list-style-type: none"> <li>No issues reported.</li> </ul>
Queensland	<ul style="list-style-type: none"> <li>Non-NEPM compliant monitoring undertaken.</li> </ul>
Western Australia	<ul style="list-style-type: none"> <li>Non-NEPM compliant monitoring undertaken.</li> </ul>
South Australia	<ul style="list-style-type: none"> <li>No issues reported.</li> </ul>
Tasmania	<ul style="list-style-type: none"> <li>No issues reported.</li> </ul>
Australian Capital Territory	<ul style="list-style-type: none"> <li>Previous desktop analysis has shown that air toxics are not an issue for the ACT airshed and no monitoring sites have been identified.</li> </ul>
Northern Territory	<ul style="list-style-type: none"> <li>Previous desktop analysis has shown that air toxics are not an issue for the NT airshed and no monitoring sites have been identified.</li> </ul>

## PART 3 JURISDICTIONAL REPORT ON ACTIVITIES UNDER THE NATIONAL ENVIRONMENT PROTECTION MEASURE

### Identification of sites

No jurisdiction identified any new sites in the reporting period.

### Reporting of monitoring of air toxics

Queensland continued monitoring air toxics in the 2016–17 reporting period including polycyclic aromatic hydrocarbons (including benzo[ $\alpha$ ]pyrene) at the Stage 2 roadside monitoring site at Woolloongabba in South East Queensland until May 2016; and at Fisherman's Landing, an industrial area north of Gladstone, from March 2016. Ambient monitoring of benzene, toluene, xylenes and formaldehyde using DOAS instrumentation continued at Springwood in south-east Queensland and central Gladstone.

In Western Australia, the Department of Water and Environmental Regulation has acquired a Remote Air Pollution Infrared Detector which is undergoing field trials in the Perth metropolitan region to determine its suitability for air quality investigations.

All monitoring results were below the NEPM monitoring investigation levels.

No other jurisdictions undertook monitoring during the reporting period.

### Reporting on assessment and action if any planned or taken to manage air toxics

Monitoring to date has shown air toxics in Australia to be well below monitoring investigation levels, no jurisdiction engaged in any specific strategies or actions to manage them.

### Repeat identification of Stage 1 and Stage 2 sites

No new monitoring sites were identified during the reporting period.

## PART 4 ASSESSMENT OF NATIONAL ENVIRONMENT PROTECTION MEASURE EFFECTIVENESS

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The monitoring investigation levels continue to provide a nationally consistent benchmark for assessing and comparing the concentration of ambient air toxics from diverse monitoring sites.

Most jurisdictions agree that the NEPM has been effective in providing an impetus to investigate available data and in identifying locations most likely to experience significant population exposure to elevated levels of air toxics.

## PART 5 REPORTING ON IMPLEMENTATION BY JURISDICTIONS

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The annexes to this report are in Appendix 1:

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Annex 3:	Victoria	p. 54
Annex 4:	Queensland	p. 55
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Annex 6:	South Australia	p. 60
Annex 7:	Tasmania	p. 61
Annex 8:	Australian Capital Territory	p. 63
Annex 9:	Northern Territory	p. 64



NEPC report on the implementation of the  
National Environment  
Protection (Ambient  
Air Quality) Measure

# National Environment Protection (Ambient Air Quality) Measure

## PART 1 GENERAL INFORMATION

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### National Environment Protection Measure details

**Title:** National Environment Protection (Ambient Air Quality) Measure

**Made by Council:** 26 June 1998

**Commencement date:** 8 July 1998 (advertised in the *Commonwealth of Australia Gazette* No. GN 27, 8 July 1998, p. 2211)

### NEPM goal (or purpose)

The goal of the National Environment Protection (Ambient Air Quality) Measure is set out in clause 6 of the Measure as follows:

*The National Environment Protection Goal of this Measure is to achieve the National Environment Protection Standards as assessed in accordance with the monitoring protocol (Part 4) within ten years from commencement to the extent specified in Schedule 2 column 5.*

### Desired environmental outcomes

The desired environmental outcome of the National Environment Protection (Ambient Air Quality) Measure is set out in clause 5 of the Measure as follows:

*The desired environmental outcome of this Measure is ambient air quality that allows for the adequate protection of human health and wellbeing.*

### Evaluation criteria

The effectiveness of the National Environment Protection (Ambient Air Quality) Measure has been assessed against the evaluation criteria for this NEPM.

## PART 2 IMPLEMENTATION OF THE NATIONAL ENVIRONMENT PROTECTION MEASURE AND ANY SIGNIFICANT ISSUES

This part provides a summary of jurisdictional reports on implementation and the Council's overall assessment of the implementation of the NEPM.

### Legislative, regulatory and administrative framework

Table 1: Summary of implementation frameworks

Jurisdiction	Summary of implementation frameworks
Commonwealth	<ul style="list-style-type: none"> <li>The Commonwealth implements the NEPM administratively. However, it is not required by the NEPM to undertake monitoring as there are currently no nonself governing Commonwealth territories or Commonwealth regions with a population above the 25,000 NEPM protocol threshold.</li> </ul>
New South Wales	<ul style="list-style-type: none"> <li>The NEPM is implemented under the <i>Protection of the Environment Operations Act 1997</i>, the Protection of the Environment Operations (General) Regulation 2009 and the Protection of the Environment Operations (Clean Air) Regulation 2010.</li> </ul>
Victoria	<ul style="list-style-type: none"> <li>The key legislative instruments are the state Environment Protection Policy (Ambient Air Quality) and the state Environment Protection Policy (Air Quality Management) made under the <i>Environment Protection Act 1970</i>.</li> </ul>
Queensland	<ul style="list-style-type: none"> <li>The NEPM is implemented under the <i>Environmental Protection Act 1994</i>, the Environmental Protection Regulation 1998, and the Environmental Protection (Air) Policy 2008.</li> </ul>
Western Australia	<ul style="list-style-type: none"> <li>The NEPM is implemented under the <i>National Environment Protection Council (Western Australia) Act 1996</i>, and the <i>Environmental Protection Act 1986</i>.</li> </ul>
South Australia	<ul style="list-style-type: none"> <li>The transitional provisions in the <i>Environment Protection (Miscellaneous) Amendment Act 2005</i> enable the NEPM to continue to operate as an Environment Protection Policy.</li> </ul>
Tasmania	<ul style="list-style-type: none"> <li>The NEPM is implemented under the <i>Environmental Management Pollution Control Act 1994</i>, the Environment Protection Policy (Air Quality) 2004, the Environmental Management and Pollution Control (Distributed Atmospheric Emissions) Regulations 2007 and the Tasmanian Air Quality Strategy 2006.</li> <li>The NEPM is a state policy under the <i>State Policies and Projects Act 1993</i>.</li> </ul>
Australian Capital Territory	<ul style="list-style-type: none"> <li>The NEPM is implemented by the <i>Environment Protection Regulation 1997</i> under the <i>Environment Protection Act 1997</i>.</li> </ul>
Northern Territory	<ul style="list-style-type: none"> <li>The key legislative instruments are the <i>Waste Management and Pollution Control Act</i> and the <i>National Environment Protection Council (Northern Territory) Act 2004</i>.</li> </ul>

### Implementation issues arising

Table 2 summarises the implementation issues that arose throughout the 2016 reporting year (this NEPM has a calendar year reporting requirement). For implementation activities please refer to jurisdictional reports as listed in Part 5.

Table 2: Summary of implementation issues arising

Jurisdiction	Summary of implementation issues arising
Commonwealth	<ul style="list-style-type: none"> <li>No monitoring undertaken because the NEPM is implemented administratively.</li> <li>No issues reported.</li> </ul>
New South Wales	<ul style="list-style-type: none"> <li>Data capture targets were not achieved for PM<sub>2.5</sub> at Wallsend in the Lower Hunter.</li> </ul>
Victoria	<ul style="list-style-type: none"> <li>Data capture targets were not achieved for ozone at Footscray, for sulfur dioxide at Altona North, PM<sub>10</sub> at Richmond (the site was decommissioned) and PM<sub>2.5</sub> at Geelong south.</li> </ul>
Queensland	<ul style="list-style-type: none"> <li>The Woolloongabba monitoring site in south-east Queensland was closed on 17 June 2016 and relocated to a new location. Monitoring re-commenced on 6 June 2017.</li> <li>The Pimlico monitoring site in Townsville closed on 20 February 2016.</li> </ul>
Western Australia	<ul style="list-style-type: none"> <li>No issues reported.</li> </ul>
South Australia	<ul style="list-style-type: none"> <li>No issues reported.</li> </ul>
Tasmania	<ul style="list-style-type: none"> <li>No issues reported.</li> </ul>
Australian Capital Territory	<ul style="list-style-type: none"> <li>No issues reported.</li> </ul>
Northern Territory	<ul style="list-style-type: none"> <li>No issues reported.</li> </ul>

### PART 3 JURISDICTIONAL REPORT ON ACTIVITIES UNDER THE NATIONAL ENVIRONMENT PROTECTION MEASURE

During 2016, jurisdictions began reporting of the new NEPM particle standards, which were agreed to by Council in December 2015, and undertook further work on updating the standards for the other NEPM pollutants. They also worked on emissions reduction projects including developing product standards for wood heaters and non-road spark ignition engines.

Most jurisdictions continued to focus on programs that reduce emissions from motor vehicles and wood heaters, with several jurisdictions reporting improvements in particulate levels as a result. A number of jurisdictions continued to investigate the sources, dispersal and management of emissions from mining, non-road activities (such as rail and shipping), industry and planned burns to reduce their impact on local communities. Other monitoring technologies were also trialled in a number of jurisdictions.

The Commonwealth, along with the states and territories, worked on developing national emissions standards for non-road spark ignition engines and equipment. The Commonwealth is also reviewing vehicle emissions and fuel quality standards.

### PART 4 ASSESSMENT OF NATIONAL ENVIRONMENT PROTECTION MEASURE EFFECTIVENESS

The NEPM continues to be valuable in the management and assessment of air quality in Australia. It provides a nationally consistent framework for the monitoring and reporting of air quality and nationally consistent benchmarks against which to assess air quality.

There continues to be improvements in the data capture levels this reporting year, allowing for more consistent and comparable results across and between jurisdictions.

Monitoring results show that NEPM standards are mostly being met and that Australia's air quality is generally good compared with international standards. Most jurisdictions consistently meet the standards and goals for nitrogen dioxide, carbon monoxide and sulfur dioxide (except in some areas with smelting activities).

Meeting the Ambient Air Quality NEPM standards for ozone and particulates remains a significant challenge for

larger metropolitan areas in a number of jurisdictions given pressures from a growing population, urban expansion, increased economic activity and the associated increase in motor vehicle use. Bushfires, controlled burning and windblown dust continue to cause exceedances of particulate levels in a number of jurisdictions, particularly those in eastern and southern Australia.

## PART 5 REPORTING ON IMPLEMENTATION BY JURISDICTIONS

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The annexes to this report are in Appendix 2:

Annex 1:	Commonwealth	p. 66
Annex 2:	New South Wales	p. 68
Annex 3:	Victoria	p. 80
Annex 4:	Queensland	p. 84
Annex 5:	Western Australia	p. 89
Annex 6:	South Australia	p. 94
Annex 7:	Tasmania	p. 98
Annex 8:	Australian Capital Territory	p. 102
Annex 9:	Northern Territory	p. 104





NEPC report on the implementation of the  
National Environment  
Protection (Assessment of  
Site Contamination) Measure

# National Environment Protection (Assessment of Site Contamination) Measure

## PART 1 GENERAL INFORMATION

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### National Environment Protection Measure details

**Title:** National Environment Protection (Assessment of Site Contamination) Measure

**Made by Council:** 10 December 1999

**Commencement date:** 22 December 1999 (advertised in the *Commonwealth of Australia Gazette* No. GN 51, 22 December 1999, p. 4246)

### NEPM goal (or purpose)

The goal of the National Environment Protection (Assessment of Site Contamination) Measure is set out in clause 5(1) of the Measure as follows:

*The purpose of the Measure is to establish a nationally consistent approach to the assessment of site contamination to ensure sound environmental management practices by the community which includes regulators, site assessors, environmental auditors, landowners, developers and industry.*

### Desired environmental outcomes

The desired environmental outcome of the National Environment Protection (Assessment of Site Contamination) Measure is set out in clause 5(2) of the Measure as follows:

*The desired environmental outcome for this Measure is to provide adequate protection of human health and the environment, where site contamination has occurred, through the development of an efficient and effective national approach to the assessment of site contamination.*

### Evaluation criteria

The effectiveness of the National Environment Protection (Assessment of Site Contamination) Measure has been assessed against the evaluation criteria for this NEPM.

## PART 2 IMPLEMENTATION OF THE NATIONAL ENVIRONMENT PROTECTION MEASURE AND ANY SIGNIFICANT ISSUES

This part provides a summary of jurisdictional reports on implementation and the Council's overall assessment of the implementation of the NEPM.

### Legislative, regulatory and administrative framework

Table 1: Summary of implementation frameworks

Jurisdiction	Summary of implementation frameworks
Commonwealth	<ul style="list-style-type: none"> <li>The NEPM is implemented administratively.</li> </ul>
New South Wales	<ul style="list-style-type: none"> <li>The NEPM is an approved guideline under the <i>Contaminated Land Management Act 1997</i>.</li> </ul>
Victoria	<ul style="list-style-type: none"> <li>The key legislative instruments for administering the NEPM are:                             <ul style="list-style-type: none"> <li>the State Environment Protection Policy (Prevention and Management of Contamination of Land)</li> <li>the State Environment Protection Policy (Groundwaters of Victoria)</li> <li>the Industrial Waste Management Policy (Prescribed Industrial Waste)</li> <li>the <i>Planning and Environment Act 1987</i>.</li> </ul> </li> <li>The Environmental Audit System (Contaminated Land) provides the administrative framework for assessing site contamination.</li> </ul>
Queensland	<ul style="list-style-type: none"> <li>The <i>Sustainable Planning Act 2009</i>, the <i>Environment Protection Act 1994</i> and the <i>Planning Regulation 2017</i> are the key legislative instruments.</li> </ul>
Western Australia	<ul style="list-style-type: none"> <li>The NEPM is implemented through the <i>Contaminated Sites Act 2003</i> and the <i>Contaminated Sites Regulations 2006</i> and associated relevant technical guidelines.</li> </ul>
South Australia	<ul style="list-style-type: none"> <li>The <i>Environment Protection Act 1993</i> provides a legislative framework to manage site contamination, including prescribed technical guidelines.</li> </ul>
Tasmania	<ul style="list-style-type: none"> <li>The NEPM is a state policy under the <i>State Policies and Projects Act 1993</i>.</li> <li>The NEPM is implemented under the <i>Environmental Management and Pollution Control Act 1994</i>, the <i>Environmental Management and Pollution Control (Underground Petroleum Storage Systems) Regulations</i> and associated guidelines.</li> </ul>
Australian Capital Territory	<ul style="list-style-type: none"> <li>The NEPM is implemented by the Contaminated Sites Environment Protection Policy made under the <i>Environment Protection Act 1997</i>.</li> </ul>
Northern Territory	<ul style="list-style-type: none"> <li>The NEPM is implemented by audits of contaminated sites required under the Northern Territory planning process, the Northern Territory Contaminated Land Guideline, legislative directive environmental audits and voluntary audits.</li> </ul>

### Implementation issues arising

The NEPM was amended in May 2013 and much jurisdictional activity in 2016–17 remained focused on integrating these amendments into legislative frameworks.

The contaminants, perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), which are two of a group of chemicals known as per- and poly-fluoroalkyl substances remained a focus across all jurisdictions. The PFAS National Environment Management Plan is being developed collaboratively among the Commonwealth, states and territories as there are major landowners and operators who are responding to contamination risks in multiple jurisdictions. The possibility of Amending the NEPM to include these contaminants could be added to a number of issues consistently raised by jurisdictions that could be considered during the next review.

For detailed implementation activities, please refer to jurisdictional reports as listed in Part 5.

Table 2: Summary of implementation issues arising

Jurisdiction	Summary of implementation issues arising
Commonwealth	No issues reported.
New South Wales	Identified the limited number of Ecological Investigation Levels for contaminants and the need for a consistent framework for the derivation and adoption of new Ecological Investigation Levels.
Victoria	Noted flow on implications for other policy areas, such as soil characterisation, onsite storage and landfilling, which had been reliant on the original NEPM approaches and values.  Continued to question the adequacy of the Health Investigation Levels for lead in soil for the protection of human health following the release of the NHMRC Statement: Evidence on the effects of lead on human health in May 2015.
Queensland	Implementation of the NEPM is limited by the lack of adequate guidance for particular common types of contamination including fluorinated organic chemicals that are now commonly encountered on contaminated sites.
Western Australia	Noted the limited number of Ecological Investigation Levels provided in the NEPM is a major limitation to consistency in implementation.
South Australia	Raised the need for issues which arise before the required 10 year review of the NEPM to be appropriately identified and addressed. This will also allow easier incorporation of new scientific knowledge and updated technical information into the NEPM.
Tasmania	Again identified a need for additional clarity in assessing petroleum vapour intrusion at operating petrol stations as well as guidance on volatile organic chlorinated compounds.
Australian Capital Territory	No issues reported.
Northern Territory	As well as PFAS, asbestos, herbicides and pesticides (including Mirex) are emerging contaminants of concern in the Northern Territory.

### PART 3 JURISDICTIONAL REPORT ON ACTIVITIES UNDER THE NATIONAL ENVIRONMENT PROTECTION MEASURE

Most jurisdictions have amended their implementation frameworks to fully meet the requirements of the amended NEPM.

All jurisdictions continue to report a high level of compliance with the guidelines as set out in the NEPM in the assessment and management of their contaminated sites.

Jurisdictions continued to undertake a range of activities dealing with contamination of groundwater and sediments with persistent pollutants, such as per- and poly-fluorinated substances including PFOS, PFOA, and PFHxS, primarily from firefighting training activities.

Clause 9 of the NEPM sets out the information that jurisdictions are required to report. Please refer to jurisdictional reports in Part 5.

## PART 4 ASSESSMENT OF NATIONAL ENVIRONMENT PROTECTION MEASURE EFFECTIVENESS

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The NEPM, which was amended in May 2013 and is now almost fully implemented by all jurisdictions, continues to provide consistent, consolidated guidance to professional practitioners in assessing site contamination.

Amendments have been well supported by environmental auditors and others in the site assessment industry and the consistency of site assessments and human health risk assessments submitted to agencies continues to improve across the country.

Jurisdictions identified the need for the NEPM to be more responsive to new and/or updated standards, and emerging chemicals.

## PART 5 REPORTING ON IMPLEMENTATION BY JURISDICTIONS

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The annexes to this report are in Appendix 3:

Annex 1:	Commonwealth	p. 108
Annex 2:	New South Wales	p. 109
Annex 3:	Victoria	p. 110
Annex 4:	Queensland	p. 112
Annex 5:	Western Australia	p. 114
Annex 6:	South Australia	p. 115
Annex 7:	Tasmania	p. 117
Annex 8:	Australian Capital Territory	p. 118
Annex 9:	Northern Territory	p. 119



NEPC report on the implementation of the  
National Environment  
Protection (Diesel Vehicle  
Emissions) Measure



# National Environment Protection (Diesel Vehicle Emissions) Measure

## PART 1 GENERAL INFORMATION

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### Nation Environment Protection Measure details

**Title:** National Environment Protection (Diesel Vehicle Emissions) Measure

**Made by Council:** 29 June 2001

**Commencement date:** 18 July 2001 (advertised in the *Commonwealth of Australia Gazette* No. GN 28, 18 July 2001, p. 2014)

### NEPM goal (or purpose)

The goal of the National Environment Protection (Diesel Vehicle Emissions) Measure is set out in clause 10 of the Measure as follows:

*The goal of this Measure is to reduce exhaust emissions from diesel vehicles, by facilitating compliance with in-service emissions standards for diesel vehicles.*

### Desired environmental outcomes

The desired environmental outcome of the National Environment Protection (Diesel Vehicle Emissions) Measure is set out in clause 11 of the Measure as follows:

*The desired environmental outcome of this Measure is to reduce pollution from in-service diesel vehicles.*

### Evaluation criteria

The effectiveness of the National Environment Protection (Diesel Vehicle Emissions) Measure has been assessed against the evaluation criteria for this NEPM.

## PART 2 IMPLEMENTATION OF THE NATIONAL ENVIRONMENT PROTECTION MEASURE AND ANY SIGNIFICANT ISSUES

This part provides a summary of jurisdictional reports on implementation and the Council's overall assessment of the implementation of the NEPM.

### Legislative, regulatory and administrative framework

Table 1: Summary of implementation frameworks

Jurisdiction	Summary of implementation frameworks
Commonwealth	<ul style="list-style-type: none"> <li>The NEPM is implemented administratively.</li> <li>The NEPM is supported by the Australian Design Rules under the <i>Motor Vehicle Standards Act 1989</i>, and the <i>Fuel Quality Standards Act 2000</i> and fuel tax credit arrangements.</li> </ul>
New South Wales	<ul style="list-style-type: none"> <li>The key legislative instruments are the <i>Protection of the Environment Operations Act 1997</i> and the <i>Protection of the Environment Operations (Clean Air) Regulation 2010</i>.</li> <li>The NEPM is implemented by Environment Protection Authority and Department of Roads and Maritime Services programs.</li> </ul>
Victoria	<ul style="list-style-type: none"> <li>The primary legislative tools are the Environment Protection (Vehicle Emissions) Regulations 2013 under the <i>Environment Protection Act 1970</i>.</li> <li>These Regulations no longer deal with heavy vehicles over 4.5 tonnes. Compliance with national heavy vehicle regulation is overseen by VicRoads.</li> </ul>
Queensland	<ul style="list-style-type: none"> <li>The NEPM is implemented by the <i>National Environment Protection Council (Queensland) Act 1994</i>.</li> <li>The Department of Transport and Main Roads is responsible for implementing and reporting on the Diesel NEPM.</li> </ul>
Western Australia	<ul style="list-style-type: none"> <li>The NEPM is implemented by the <i>National Environment Protection Council (Western Australia) Act 1996</i>, and the <i>Environmental Protection Act 1986</i>.</li> <li>Vehicle emissions in Western Australia are regulated under the <i>Road Traffic (Vehicles) Act 2012</i> and <i>Road Traffic (Vehicles) Regulations 2014</i>, administered by the Department of Transport.</li> </ul>
South Australia	<ul style="list-style-type: none"> <li>The transitional provisions in the <i>Environment Protection (Miscellaneous) Amendment Act 2005</i> enable the NEPM to continue to operate as an Environment Protection Policy.</li> <li>Vehicle emissions in South Australia are regulated under <i>Road Traffic (Vehicle Standards) Rules 1999</i>, administered by the Department of Planning, Transport and Infrastructure.</li> </ul>
Tasmania	<ul style="list-style-type: none"> <li>The NEPM is a state policy under the <i>State Policies and Projects Act 1993</i>.</li> <li>The Department of State Growth uses the 'ten second rule' to target smoky motor vehicles.</li> </ul>
Australian Capital Territory	<ul style="list-style-type: none"> <li>The key legislative instrument is the <i>Road Transport (Vehicle Registration) Regulation 2000</i>, implemented by Access Canberra.</li> </ul>
Northern Territory	<ul style="list-style-type: none"> <li>Vehicle performance standards are enforced under the <i>Motor Vehicles Act</i> implemented by the Department of Transport.</li> </ul>

### Implementation issues arising

Table 2 summarises the implementation issues that arose throughout the 2016–17 reporting year. For implementation activities refer to jurisdictional reports as listed in Part 5.

*Table 2: Summary of implementation issues arising*

Jurisdiction	Summary of implementation issues arising
Commonwealth	<ul style="list-style-type: none"> <li>No issues reported.</li> </ul>
New South Wales	<ul style="list-style-type: none"> <li>No issues reported.</li> </ul>
Victoria	<ul style="list-style-type: none"> <li>No issues reported.</li> <li>The VIPAC Emissions Test Facility remained closed during the reporting period due to high maintenance costs and low throughput of vehicles.</li> </ul>
Queensland	<ul style="list-style-type: none"> <li>No issues reported.</li> </ul>
Western Australia	<ul style="list-style-type: none"> <li>No issues reported.</li> </ul>
South Australia	<ul style="list-style-type: none"> <li>No issues reported.</li> <li>The Regency Park Emissions Test Facility remained closed during the reporting period due to high maintenance costs and low throughput of vehicles. Private sector involvement is being sought to provide alternative services.</li> </ul>
Tasmania	<ul style="list-style-type: none"> <li>No specific issues were reported, however the NEPM is of limited relevance because diesel vehicles are not major contributors to air emissions in urban areas.</li> </ul>
Australian Capital Territory	<ul style="list-style-type: none"> <li>No specific issues were reported, however the NEPM is of limited relevance because diesel vehicles are not major contributors to air emissions in the ACT airshed.</li> </ul>
Northern Territory	<ul style="list-style-type: none"> <li>No specific issues were reported, however the NEPM is of limited relevance because diesel vehicles are not major contributors to air emissions in urban areas.</li> </ul>

## PART 3 JURISDICTIONAL REPORT ON ACTIVITIES UNDER THE NATIONAL ENVIRONMENT PROTECTION MEASURE

In October 2015, the Australian Government announced a whole-of-government review of vehicle emissions through the establishment of a Ministerial Forum on Vehicle Emissions. Government decisions on new vehicle emissions measures are expected in 2017. The Australian Government completed a statutory review of the *Fuel Quality Standards Act 2000* in April 2016 and is reviewing the legislative instruments (including fuel standards) made under the Act.

Jurisdictions continue to run a number of programs to monitor and reduce emissions from their diesel fleets, including smoky vehicle reporting programs, upgrades to government vehicle and bus fleets and emissions testing and repair programs. New South Wales continued to run diesel retrofit programs for both on- and off-road vehicles.

For details of individual programs and initiatives, please refer to jurisdictional reports listed in Part 5.

## PART 4 ASSESSMENT OF NATIONAL ENVIRONMENT PROTECTION MEASURE EFFECTIVENESS

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While there are some limitations on the ability to quantify the overall effectiveness of the NEPM based initiatives implemented to date, jurisdictions report that the NEPM continues to help reduce emissions from diesel vehicles across Australia and is a useful component of the broader framework to manage vehicle emissions and air quality more generally.

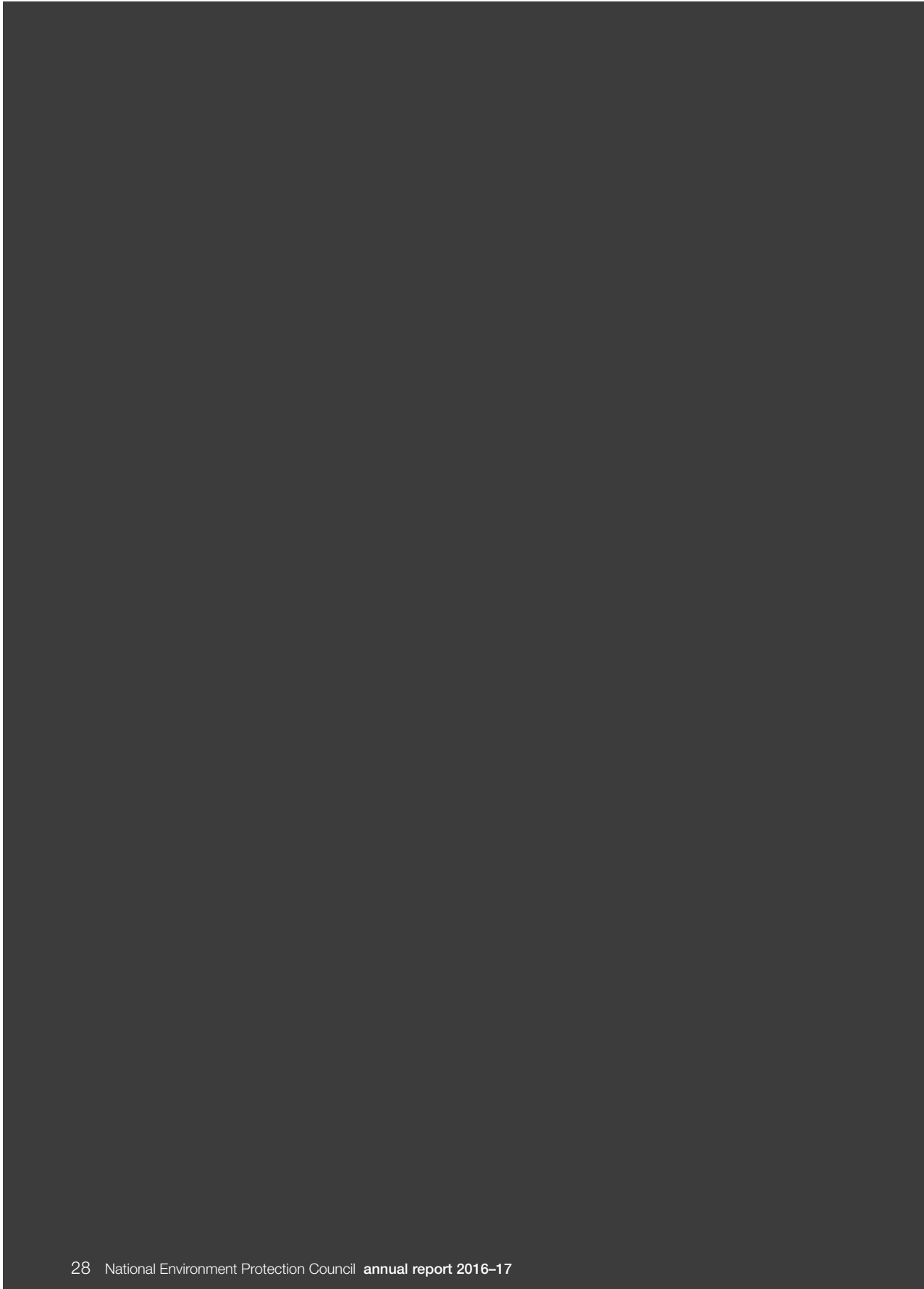
A number of jurisdictions continued to note increases in the numbers of registered on and off-road diesel vehicles resulting in them becoming an increasingly higher proportion of their in-service fleets. Fleet turnover, combined with the introduction of more stringent vehicle emissions regulations, means considerable progress is being made toward achieving NEPM goals through national initiatives including the Australian Design Rules and fuel quality standards, particularly for smaller vehicles.

## PART 5 REPORTING ON IMPLEMENTATION BY JURISDICTIONS

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The annexes to this report are in Appendix 4:

Annex 1:	Commonwealth	p. 122
Annex 2:	New South Wales	p. 124
Annex 3:	Victoria	p. 129
Annex 4:	Queensland	p. 131
Annex 5:	Western Australia	p. 134
Annex 6:	South Australia	p. 137
Annex 7:	Tasmania	p. 139
Annex 8:	Australian Capital Territory	p. 141
Annex 9:	Northern Territory	p. 143



NEPC report on the implementation of the  
National Environment Protection  
(Movement of Controlled Waste  
between States and Territories)  
Measure

# National Environment Protection (Movement of Controlled Waste between States and Territories) Measure

## PART 1 GENERAL INFORMATION

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### National Environment Protection Measure details

**Title:** National Environment Protection Council (Movement of Controlled Waste between States and Territories) Measure

**Made by Council:** 26 June 1998

**Commencement date:** 8 July 1998 (advertised in the *Commonwealth of Australia Gazette* No. GN 27, 8 July 1998, p. 2212)

### NEPM goal (or purpose)

The desired goal for the National Environment Protection (Movement of Controlled Waste between States and Territories) Measure is set out in clause 11 of the Measure as follows:

*The National environment protection goal of this Measure is to assist in achieving the desired environmental outcomes set out in clause 12 by providing a basis for ensuring that controlled wastes which are to be moved between states and territories are properly identified, transported, and otherwise handled in ways consistent with environmentally sound practices for the management of such wastes.*

### Desired environmental outcomes

The desired environmental outcome for the National Environment Protection (Movement of Controlled Waste between States and Territories) Measure is set out in clause 12 of the Measure as follows:

*The desired environmental outcomes of this Measure are to minimise the potential for adverse impacts associated with the movement of controlled waste on the environment and human health.*

### Evaluation criteria

The effectiveness of the National Environment Protection (Movement of Controlled Waste between States and Territories) Measure has been assessed against the evaluation criteria for this NEPM.

## PART 2 IMPLEMENTATION OF THE NATIONAL ENVIRONMENT PROTECTION MEASURE AND ANY SIGNIFICANT ISSUES

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This part provides a summary of jurisdictional reports on implementation and the Council's overall assessment of the implementation of the NEPM.

## Legislative, regulatory and administrative framework

Table 1: Summary of implementation frameworks

Jurisdiction	Summary of implementation frameworks
Commonwealth	The NEPM is implemented administratively.
New South Wales	The key legislative instruments are the <i>Protection of the Environment Operations Act 1997</i> and the <i>Protection of the Environment Operations (Waste) Regulation 2014</i> .
Victoria	The key legislative instruments are the <i>Environment Protection Act 1970</i> , the <i>Environment Protection (Industrial Waste Resource) Regulations 2009</i> , and the <i>Waste Management Policy (Movement of Controlled Waste between States and Territories) 2001</i> .
Queensland	The key legislative instrument is the <i>Environmental Protection Act 1994</i> . Requirements for the licensing of controlled waste transporters are included in the <i>Environmental Protection Regulation 2008</i> .
Western Australia	The primary legislative instruments are the <i>Environmental Protection Act 1986</i> and the <i>Environmental Protection (Controlled Waste) Regulations 2004</i> .
South Australia	The NEPM is implemented by the <i>Environment Protection (Movement of Controlled Waste) Policy 2014</i> under the <i>Environment Protection Act 1993</i> .
Tasmania	The NEPM is a state policy under the <i>State Policies and Projects Act 1993</i> . The NEPM is implemented under the <i>Environmental Management and Pollution Control Act 1994</i> .
Australian Capital Territory	The key legislative instruments are the <i>Environment Protection Act 1997</i> and the <i>Environment Protection Regulations 2005</i> .
Northern Territory	The key legislative instruments are the <i>Waste Management and Pollution Control Act</i> and the <i>Dangerous Goods (National Uniform Legislation) Act</i> .

### Implementation issues arising

No implementation issues were reported by jurisdictions.

## PART 3 JURISDICTIONAL REPORT ON ACTIVITIES UNDER THE NATIONAL ENVIRONMENT PROTECTION MEASURE

During the reporting period, the Implementation Agreement between state and territory agencies on matters relating to the implementation of the NEPM was reviewed and the revised Agreement was signed by all jurisdictions on 1 May 2017.

The Commonwealth continued work towards a single, nationally consistent electronic tracking system for inter- and intrastate movements of hazardous and controlled wastes.

A number of jurisdictions focused on the transportation of industrial waste between states to both limit the possibility of the improper movement of waste and ensure its disposal at permitted facilities.

There continues to be close consultation between state and territory agencies, established under the NEPM agreement.

The tables below provide a national summary of the data for quantities of each waste category transported. The waste categories group the 73 waste streams and constituents listed in Schedule A of the NEPM into 15 broader types.



MOVEMENT OF CONTROLLED WASTE BETWEEN STATES AND TERRITORIES

Table 2: Summary of total movements of controlled waste within Australia, imports by states and territories for the period 1 July 2016–30 June 2017

Code	Description	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ex terr*	Total
A	Plating and heat treatment	2.14	1.00	0.4	15.95	0.00	0.00	0.00	0.00	n/a	<b>19.49</b>
B	Acids	20,117.01	148.0	2.8	0.00	278.48	6.00	0.00	0.00	n/a	<b>20,552.59</b>
C	Alkalis	137.99	133.0	264.2	0.00	728.51	0.20	0.00	0.00	n/a	<b>1262.90</b>
D	Inorganic chemicals	23,483.24	12,655.0	1614.8	0.00	177,369.68	4326.22	0.00	0.00	n/a	<b>220,449.04</b>
E	Reactive chemicals	11.45	8.0	106.0	0.00	0.96	0.02	0.00	0.00	n/a	<b>125.43</b>
F	Paints, resins, inks, organic sludges	2210.35	5056.0	309.4	0.00	2352.86	114.00	0.00	0.00	n/a	<b>10,042.61</b>
G	Organic solvents	343.33	1400.0	6481.8	0.00	189.42	30.00	0.00	0.00	n/a	<b>8444.55</b>
H	Pesticides	8.43	725.0	22.7	0.00	40.04	0.00	0.00	0.00	n/a	<b>857.17</b>
J	Oils	5863.83	3656.0	26,446.2	402.00	2302.53	65.00	391.90	751.55	n/a	<b>39,897.91</b>
K	Putrescible/organic waste	9240.05	2363.0	3630.5	356.00	0.00	92.00	0.00	0.00	n/a	<b>15,681.55</b>
L	Industrial washwater	0.00	982.0	4552.7	0.00	0.00	0.00	0.00	0.00	n/a	<b>5534.70</b>
M	Organic chemicals	608.99	413.0	31,051.2	35.70	56.67	0.15	0.00	0.00	n/a	<b>32,180.71</b>
N	Soil/sludge	3947.24	6029.0	131.6	0.00	396.84	37.50	660.50	0.00	n/a	<b>11,203.68</b>
R	Clinical and pharmaceutical	342.46	1743.0	12.5	0.00	2067.34	0.60	223.70	0.00	n/a	<b>4389.60</b>
T	Misc.	841.34	306.0	0.4	0.00	46.71	3.50	0.00	0.00	n/a	<b>1197.95</b>
	Total (tonnes)	67,157.85	36,618.0	74,640.8	809.65	185,830.04	4675.19	1276.10	751.55	n/a	<b>371,839.58</b>

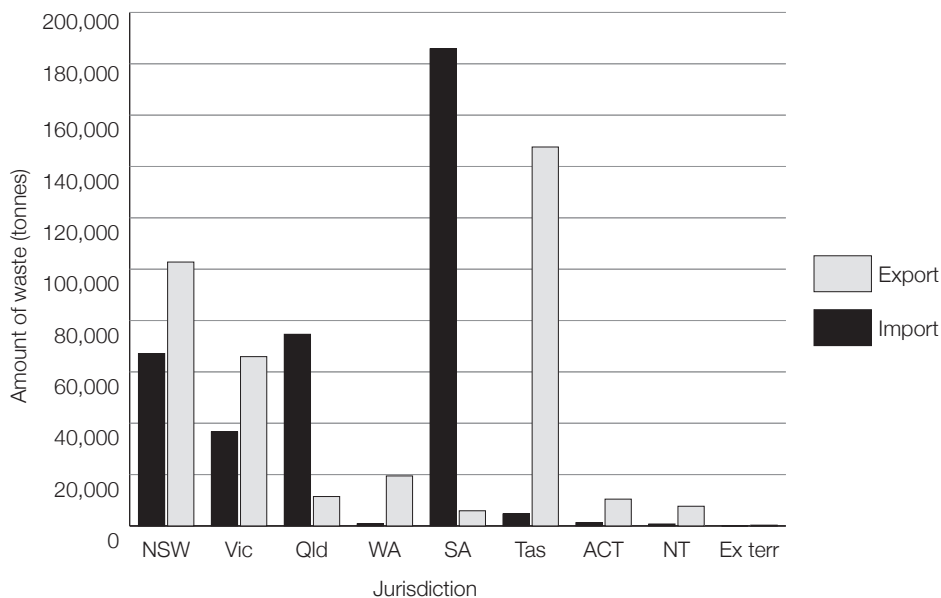
\*Note: Information regarding external territories (Ex terr\*) has only been provided since the reporting year 2009–10.

Table 3: Summary of total movements of controlled waste within Australia, exports by states and territories for the period 1 July 2016–30 June 2017

Code	Description	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ex terr*	Total
A	Plating and heat treatment	0.4	0.00	1.38	0.00	0.76	1.00	0.00	15.95	0.00	19.49
B	Acids	147.16	20,068.11	41.00	25.52	49.48	29.00	0.42	185.60	6.00	20,552.29
C	Alkalis	183.82	270.12	66.67	6.87	4.00	11.00	0.58	719.64	0.20	1262.90
D	Inorganic chemicals	12,817.53	32,617.86	5879.15	16,942.94	3914.78	14,7174.46	51.18	1049.92	1.22	220,449.04
E	Reactive chemicals	113.00	2.76	0.00	0.00	0.00	0.00	0.08	0.00	0.02	125.43
F	Paints, resins, inks, organic sludges	4151.20	3616.96	1083.30	299.50	422.07	17.00	23.33	159.31	2.00	10,042.61
G	Organic solvents	7261.61	157.01	269.30	326.27	339.04	77.00	21.09	0.00	30.00	8444.55
H	Pesticides	260.04	40.44	276.70	446.70	10.30	0.00	0.33	0.00	0.00	857.17
J	Oils	27,647.22	3440.89	985.00	1257.07	483.34	174.30	2946.05	2910.83	65.00	39,387.91
K	Putrescible/organic waste	5890.50	2714.72	0.00	12.00	74.00	0.00	6537.33	356.00	92.00	15,681.55
L	Industrial washwater	5484.30	2.20	48.00	0.00	42.20	0.00	0.00	0.00	0.00	5534.70
M	Organic chemicals	31,233.27	257.39	428.10	10.09	192.08	54.30	117.92	86.70	0.15	32,180.71
N	Soil/sludge	6612.49	2308.93	237.70	61.35	33.89	344.00	165.53	129.28	37.50	11,203.68
R	Clinical and pharmaceutical	721.70	12.95	432.00	63.00	313.00	51.30	342.01	2021.04	0.60	4389.60
T	Misc.	256.28	429.76	0.00	22.77	21.00	20.00	229.41	32.15	3.50	1197.95
	Total (tonnes)	102,780.88	65,940.10	3918.6	19,474.08	5899.94	147,953.36	10,435.26	7666.42	238.19	371,839.58

\*Note: Information regarding external territories (Ex terr\*) has only been provided since the reporting year 2009–10.

Figure 1: Tonnage of controlled waste moved within Australia 2016–17\*



\*Note: Information regarding Australia’s external territories has been provided only since the reporting year 2009–10 (and in Figure 1, the scale of the vertical axis does not allow for the 238.19 tonnes of waste exported from Australia’s external territories to be visually represented).

Figure 2: Tonnage of controlled waste moved within Australia 1999–2017

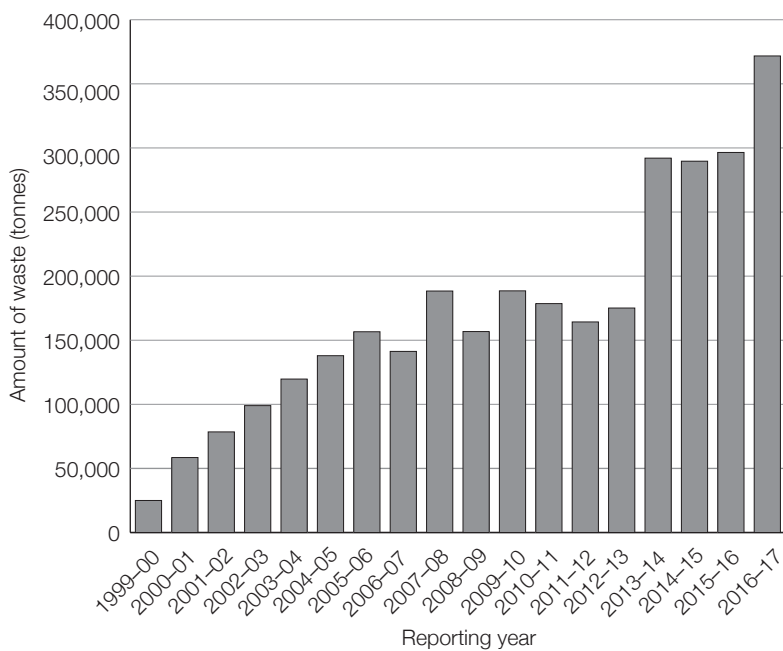
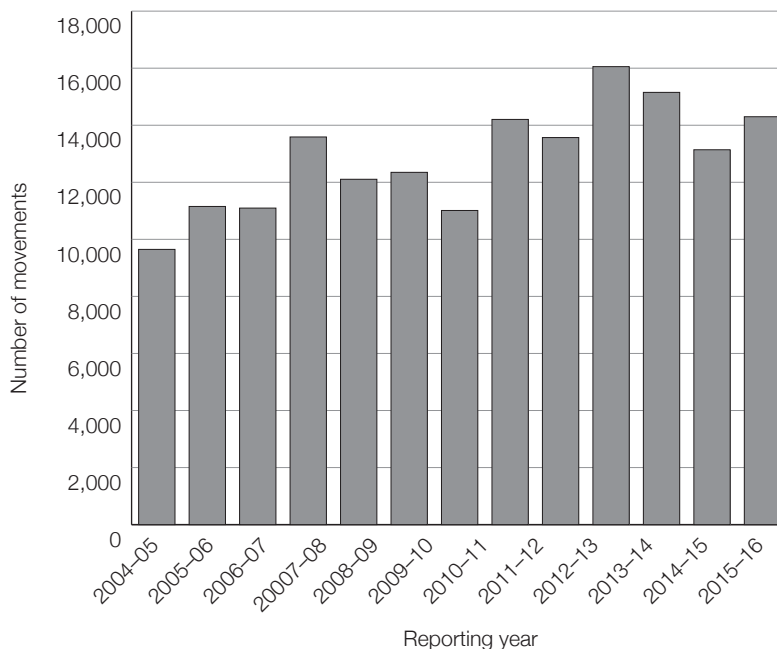


Figure 3: Number of movements of controlled waste within Australia 2004–17\*



\*Note: Information regarding number of movements has been provided only since the reporting year 2004–05.

#### PART 4 ASSESSMENT OF NATIONAL ENVIRONMENT PROTECTION MEASURE EFFECTIVENESS

Jurisdictions reported that the NEPM continues to provide an effective means of tracking the interstate movement of controlled waste between states and territories. The NEPM also continues to be an effective tool in minimising the potential for adverse impacts associated with the movement of controlled waste on human health and the environment. There remains a high level of communication and cooperation between jurisdictions for this NEPM, particularly regarding the appropriateness of issuing consignment authorisations and discrepancies in wastes moving between states and territories.

#### PART 5 REPORTING ON IMPLEMENTATION BY JURISDICTIONS

The annexes to this report are in Appendix 5:

Annex 1:	Commonwealth	p. 146
Annex 2:	New South Wales	p. 147
Annex 3:	Victoria	p. 150
Annex 4:	Queensland	p. 153
Annex 5:	Western Australia	p. 156
Annex 6:	South Australia	p. 158
Annex 7:	Tasmania	p. 161
Annex 8:	Australian Capital Territory	p. 164
Annex 9:	Northern Territory	p. 167



NEPC report on the implementation of the  
National Environment  
Protection (National Pollutant  
Inventory) Measure

# National Environment Protection (National Pollutant Inventory) Measure

## PART 1 GENERAL INFORMATION

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### National Environment Protection Measure details

**Title:** National Environment Protection (National Pollutant Inventory) Measure

**Made by Council:** 27 February 1998

**Commencement date:** Clauses 1 and 2 of the Measure commenced on the date of Gazettal 4 March 1998 (advertised in the *Commonwealth of Australia Gazette* No. S 89, 4 March 1998, p. 1) with the remaining provisions of the Measure commencing on 1 July 1998.

### NEPM goal (or purpose)

The environment protection goals are established by clause 6 of this Measure as follows:

*The national environment protection goals established by this Measure are to:*

- (a) collect a broad base of information on emissions and transfers of substances on the reporting list*
- (b) disseminate the information collected to all sectors of the community in a useful, accessible and understandable form.*

In summary, the National Pollutant Inventory NEPM provides the framework for the development and establishment of the National Pollutant Inventory which is an internet database designed to provide publicly available information on the types and amounts of certain chemicals being emitted to the air, land and water.

### Desired environmental outcomes

The desired environmental outcomes, as set out in clause 5 of the Measure, are:

- (a) the maintenance and improvement of:*
  - (i) ambient air quality*
  - (ii) ambient marine, estuarine and fresh water quality*
- (b) the minimisation of environmental impacts associated with hazardous wastes*
- (c) an improvement in the sustainable use of resources.*

### Evaluation criteria

The effectiveness of the National Environment Protection (National Pollutant Inventory) Measure has been assessed against the evaluation criteria for this NEPM.

## PART 2 IMPLEMENTATION OF THE NATIONAL ENVIRONMENT PROTECTION MEASURE AND ANY SIGNIFICANT ISSUES

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This part provides a summary of jurisdictional reports on implementation and the Council's overall assessment of the implementation of the NEPM.

Legislative, regulatory and administrative framework

Table 1: Summary of implementation frameworks

Jurisdiction	Summary of implementation frameworks
Commonwealth	The NEPM is implemented administratively.
New South Wales	The key legislative instrument is the Protection of the Environment Operations (General) Regulation 2009 under the <i>Protection of the Environment Operations Act 1997</i> .
Victoria	The key legislative instrument is the Waste Management Policy (National Pollutant Inventory) 2012 under the <i>Environment Protection Act 1970</i> .
Queensland	The NEPM is implemented under the <i>Environmental Protection Act 1994</i> and the <i>Environmental Protection Regulation 2008</i> .
Western Australia	The key legislative instrument is the Environmental Protection (NEPM—National Pollutant Inventory) Regulations 1998 under the <i>Environmental Protection Act 1986</i> .
South Australia	The NEPM operates as an Environment Protection Policy under the <i>Environment Protection Act 1993</i> .
Tasmania	The NEPM is a state policy under the <i>State Policies and Projects Act 1993</i> and is implemented through the <i>Environmental Management and Pollution Control Act 1993</i> .
Australian Capital Territory	The key legislative instrument is the <i>Environment Protection Act 1997</i> .
Northern Territory	The NEPM is implemented by the Environment Protection (National Pollutant Inventory) Objective established under the <i>Waste Management and Pollution Control Act 1998</i> .

Implementation issues arising

A summary of implementation issues arising during 2015–16 (the National Pollutant Inventory NEPM reporting year is a year behind the current annual report year) can be found in Table 2. For implementation activities refer to jurisdictional reports listed in Appendix 6, see page 171.



Table 2: Summary of implementation issues arising

Jurisdiction	Summary of implementation issues arising
Commonwealth	<p>There was an increase in the number of complaints related to defects in the behaviour of the National Pollutant Inventory database.</p> <p>For the first time, the Commonwealth published the National Pollutant Inventory dataset on the whole-of-government platform, data.gov.au.</p>
New South Wales	<p>The National Pollutant Inventory online reporting system has led to improvements in the quality and accuracy of facility data by including estimation and validation tools and minimising the need for manual data entry.</p> <p>Enquiries from public and media continue to demonstrate a growing awareness of the dataset, however there continues to be a strong need to provide contextual information about the data</p>
Victoria	<p>Noted the absence of penalty provisions aiding enforcement makes it difficult to ensure that the National Pollutant Inventory reports are submitted on time and contain accurate and comprehensive data.</p>
Queensland	<p>Again noted that opportunities exist to improve the effectiveness and implementation of the National Pollutant Inventory through a strategic review. Queensland supports investigating these opportunities through the detailed review of the current National Environmental Protection (National Pollutant Inventory) Measure.</p>
Western Australia	<p>Identified opportunities for enhanced administration of the National Pollutant Inventory NEPM through the collection and reporting of aggregated emissions data.</p>
South Australia	<p>Welcomed the strategic review of the NEPM.</p> <p>A detailed air emissions inventory remains a strategic priority for both the National Pollutant Inventory programme and the SA EPA.</p>
Tasmania	<p>Planning an internal review of industry reporting levels in response to feedback from industry about reporting capability, awareness of NEPM obligations, and potential under-reporting.</p>
Australian Capital Territory	<p>As in last year's report there was a continued need for training of reporters to use the online reporting system due to staff turnover.</p>
Northern Territory	<p>A reduction in Commonwealth funding has led to a reduction in administration of the NPI, the validation of reports and the performance of AED (aggregate emissions data) modelling as required by the NEPM before submission to the Commonwealth.</p>

### PART 3 ASSESSMENT OF NATIONAL ENVIRONMENT PROTECTION MEASURE EFFECTIVENESS

Memoranda of Understanding (MoUs) have been signed at heads of agency level between each jurisdiction and the Commonwealth. An MOU is in place until June 2018.

The MoUs set out those NEPM matters to be agreed by individual jurisdictions and the Commonwealth.

#### Website and public awareness

Reporting information is available on the National Pollutant Inventory website at [www.npi.gov.au](http://www.npi.gov.au). The number of visitors to the National Pollutant Inventory website increased from 274,066 in 2015–16 to 288,026 in 2016–17.

The free phone line and the public email box have been used to inform the public. Ninety-six calls were received by the Commonwealth through the free call phone line, however most calls were from industry seeking advice on National Pollutant Inventory reporting requirements. 224 email responses were provided to questions received via the National Pollutant Inventory website and email address.

### On-line reporting

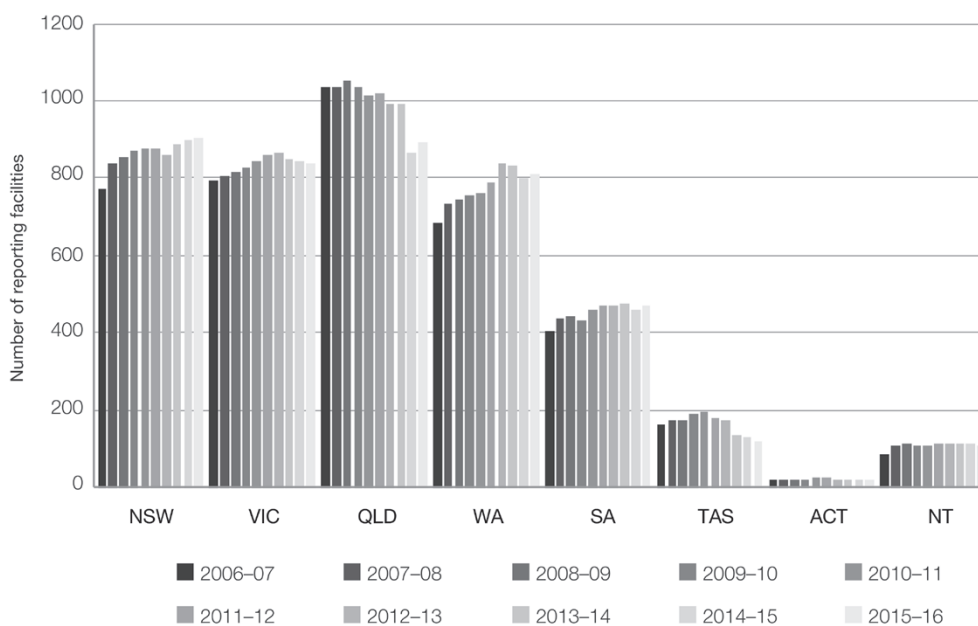
The Commonwealth continued to maintain the National Pollutant Inventory website and database search engine. This work ensured that relevant and up to date information is accessible to the public and other key stakeholders.

The Commonwealth published the 2015–16 National Pollutant Inventory data in March 2017. The number of facilities reporting to the inventory rose from 4133 in 2014–15 to 4165 in 2015–16.

### Industry facility reporting

Figure 1 shows that the number of facilities reporting to the National Pollutant Inventory in all jurisdictions over the past 10 years.

Figure 1: Number of reporting facilities in each jurisdiction by year since 2006–07



## PART 4 REPORTING ON IMPLEMENTATION BY JURISDICTIONS

The annexes to this report are in Appendix 6, see page 171.



NEPC report on the implementation of the  
National Environment  
Protection (Used Packaging  
Materials) Measure

# National Environment Protection (Used Packaging Materials) Measure

## PART 1 GENERAL INFORMATION

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### National Environment Protection Measure details

**Title:** National Environment Protection (Used Packaging Materials) Measure

**Commencement date:** 15 July 2005

### NEPM goal (or purpose)

The environment protection goal is established by clause 6 of this Measure as follows:

*The goal of the Measure is to reduce environmental degradation arising from the disposal of used packaging and conserve virgin materials through the encouragement of re-use and recycling of used packaging materials by supporting and complementing the voluntary strategies in the National Packaging Covenant.*

### Desired environmental outcomes

The desired environmental outcomes from the combination of the Australian Packaging Covenant and the Measure are to minimise the overall environmental impacts of packaging by pursuing the Covenant performance goals:

1. **Design:** optimise packaging to use resources efficiently and reduce environmental impact without compromising product quality and safety.
2. **Recycling:** efficiently collect and recycle packaging.
3. **Product stewardship:** demonstrate commitment by all signatories.

### Evaluation criteria

The effectiveness of the National Environment Protection (Used Packaging Materials) Measure has been assessed against the evaluation criteria for this NEPM.

## PART 2 IMPLEMENTATION OF THE NEPM AND ANY SIGNIFICANT ISSUES

This part provides a summary of jurisdictional reports on implementation and the Council’s overall assessment of the implementation of the NEPM.

### Legislative, regulatory and administrative framework

*Table 1: Summary of implementation frameworks*

Jurisdiction	Summary of implementation frameworks
Commonwealth	The Commonwealth’s implementing legislation applies only to its jurisdictional territories and to brand owner companies with over 50 per cent government ownership such as Australia Post.
New South Wales	The NEPM is implemented by the Protection of the Environment Operations (Waste) Regulation 2005.
Victoria	The NEPM is implemented by the Waste Management Policy (Used Packaging Materials) 2006, under the <i>Environment Protection Act 1970</i> .
Queensland	The NEPM is implemented by the Waste Reduction and Recycling Regulation 2011.
Western Australia	The NEPM is implemented by the Environmental Protection NEPM—Used Packaging Materials) Regulations 2013 under the <i>Environmental Protection Act 1986</i> .
South Australia	The NEPM is legally enforced by the Environment Protection (Used Packaging Materials) Policy 2012.
Tasmania	The NEPM is implemented under the <i>Environmental Management and Pollution Control Act 1994</i> . The NEPM is a state policy under the <i>State Policies and Projects Act 1993</i> .
Australian Capital Territory	The NEPM is implemented by the Used Packaging Materials Industry Waste Reduction Plan under the <i>Waste Minimisation Act 2001</i> .
Northern Territory	The NT Government is not a signatory to the Australian Packaging Covenant, and there are no known major brand owners based in the NT who are likely to have obligations under the NEPM. There is provision under the <i>Waste Management and Pollution Control Act 1998</i> to enforce the NEPM if needed.

### Implementation issues arising

Table 2 summarises the implementation issues that arose throughout the 2016–17 reporting year. For detailed implementation activities refer to jurisdictional reports as listed in Appendix 7.

In August 2015, a meeting of jurisdictions and industry resolved that jurisdictions would not carry out the brand owner audit during the reporting period, and that industry would take responsibility for brand owner audits from 1 July 2016.

*Table 2: Summary of implementation issues arising*

Jurisdiction	Summary of implementation issues arising
Commonwealth	No issues reported.
New South Wales	No issues reported.
Victoria	No issues reported.
Queensland	No issues reported.
Western Australia	No Issues reported.
South Australia	No issues reported.
Tasmania	No issues reported.
Australian Capital Territory	No issues reported.
Northern Territory	No issues reported.

### PART 3 JURISDICTIONAL REPORT ON ACTIVITIES UNDER THE NATIONAL ENVIRONMENT PROTECTION MEASURE

The NEPM sets out the information that jurisdictions are required to report on. This information has been provided by jurisdictions in their individual reports listed in Part 5.

A number of jurisdictions increased their NEPM advice, collaboration and compliance activities, while others focused on projects either funded by the Australian Packaging Covenant or under state-based waste reduction or recycling programs.

The NEPM contributes to better environmental outcomes by providing a regulatory safety net for the Australian Packaging Covenant.

*Table 3: Australian Packaging Covenant signatories at 30 June 2017*

ACT	4
NSW	394
QLD	71
SA	50
TAS	17
VIC	341
WA	43
<b>TOTAL</b>	<b>90</b>

### Kerbside recycling

Local government authorities have continued to collect data on the composition of kerbside recycling waste streams. The amount and type of data collected in each jurisdiction varies and, therefore, no direct comparison between jurisdictions can be made.

Further information is available in jurisdictional reports listed in Appendix 7.

### Complaints, investigations and prosecutions

No complaints regarding brand owners or Covenant signatories were received in the reporting period, and no investigations or prosecutions were necessary.

## PART 4 ASSESSMENT OF NATIONAL ENVIRONMENT PROTECTION MEASURE EFFECTIVENESS

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Major reforms to the operation of the Australian Packaging Covenant have been initiated in response to a comprehensive review by the Commonwealth Government. These reforms include changes to Covenant's governance structure, funding arrangements and the release of a new covenant. As a result of this structural change, the reporting methodology for the new covenant is evolving and the Australian Packaging Covenant is working to refine the process.

At the end of June 2017, there were 919 covenant signatories, of which 93 per cent were compliant.

Covenant signatories again showed continued improvement in all key performance reporting indicators, particularly in the areas of developing policies for buying products made from recycled packaging and reducing litter in the waste stream.

The NEPM remains a less effective mechanism in the Northern Territory as the major contributors to the waste stream are brand-owners not based in the Territory. Only two of the 17 Northern Territory councils have kerbside recycling.

## PART 5 REPORTING ON IMPLEMENTATION BY JURISDICTIONS

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The annexes to this report are in Appendix 7, see page 187.