EPA VICTORIA

ANNUAL REPORT 201819

Transforming environment protection for a better Victoria

Preventing Environmental Harm in 2018–19

13,656 Fines for environmental offences

2,782 Inspections

11,539 Pollution reports from community

467 Pollution abatement notices issued

23 Prosecutions

196 Clean up notices

Tackling Illegal Waste Stockpiling

Chaired by EPA, the Resource Recovery Facilities Audit Taskforce inspects waste and resource recovery facilities to identify the stockpiling of materials that pose a fire risk.

292 Inspections

109 Notices

24 Sanctions

164 Resource Recovery Facilities

Taskforce partners:

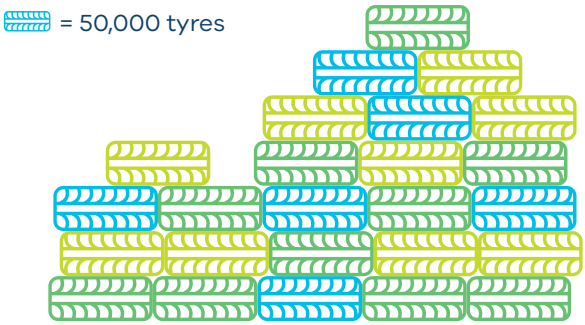
Country Fire Authority
Department of Environment, Land, Water and Planning
Emergency Management Victoria
Metropolitan Fire Brigade
WorkSafe Victoria

Numurkah Stockpile Removal

In partnership with Moira Shire Council, EPA removed an estimated 500,000 tyres from a site at West Numurkah, eliminating the fire risk that existed at the site.

440 trucks of waste.

Approximately **500,000** tyres removed over 11 weeks.



Delivering Restorative Justice

Restorative justice is used as a preventive tool to support environmental regulation.

Under the Environment Protection Act, a company or individual found guilty of an environmental offence can be directed by a court to fund a community project as a way of repairing environmental damage. In 2018-19, EPA achieved rehabilitation orders against Coliban Water and Porsche Retail Group Australia Pty Ltd totalling $200,000.

Community projects are now underway and being led by the Dja Dja Wurrung Clans Aboriginal Corporation and the Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation.

Contents

Cover: Bottom left: With the help of new drone technology, EPA is playing a key role in identifying and minimising fire risks at recycling facilities that store combustible recyclable waste materials. Top right: EPA staff at our community engagement session in Benalla in March 2019.

01 Declaration

In accordance with the *Financial Management Act 1994*, we are pleased to present Environment Protection Authority Victoria's Annual Report for the year ending 30 June 2019.

Ms Cheryl Batagol PSM
Chairperson
Responsible Body

Melbourne
3 September 2019

Dr Cathy Wilkinson
Chief Executive Officer
Accountable Officer

Melbourne
3 September 2019

02 About EPA Victoria and this Annual Report

Environment Protection Authority Victoria (EPA) is an independent statutory authority under the *Environment Protection Act 2017*. EPA's Governing Board is responsible for the governance, strategic planning and pursuit of the Authority's objective, namely to protect human health and the environment by reducing the harmful effects of pollution and waste.

The Minister with responsibility for EPA is the Hon. Lily D'Ambrosio MP, Minister for Energy, Environment and Climate Change and Minister for Solar Homes.

Our vision

A healthy environment that supports a liveable and prosperous Victoria now and always.

Our purpose

We protect the environment and people by preventing and reducing harm from pollution and waste.

Our strategic goals

To do our part in creating a healthy environment that supports a liveable and prosperous Victoria now and always, we will focus on five goals:

1. **Prevent harm:** We prevent harm from pollution and waste by leveraging good environmental performance across community, business and government.
2. **Equip community and business:** We support Victorians to understand the condition of their environment and we work to ensure shared responsibility is accepted and understood by community and business.
3. **Be an influential authority:** We are a trusted source of advice on Victoria's environment and influential in working with others to address complex problems resulting from pollution and waste.
4. **Respond to harm:** We hold polluters to account and work with our partners to respond to pollution, emergency incidents and legacy contamination to minimise harm to Victoria's environment and people.
5. **Organisational excellence:** As an organisation, we commit to delivering on our goals by enabling a high-performance culture that values our people and supports them with fit-for-purpose systems and expertise.

Our values

Successful implementation of EPA's organisational strategy, *Our environment, Our health*, requires every staff member to live our values. These values, applied consistently by each of us in our interactions with Victorians, will deliver one experience of EPA.

Excellence

- we focus effort for best result
- we are evidence and risk based
- we learn from experience
- we are agile and innovative.

Partnership

- we support each other
- we welcome diversity
- we listen and learn
- we involve people in decisions that affect them.

Accountability

- we do what we say we will
- we make timely decisions
- we use sound judgement
- we are transparent and objective.

We will also be exemplars of the Victorian Public Service values.

Definitions

Scientific and technical terms used in this Annual Report are defined on page 73.

EPA publications

All publications referred to in this Annual Report can be accessed at **www.epa.vic.gov.au/publications**

EPA acknowledges the Traditional Owners and custodians of the land upon which we live and work. We pay our respects to their Elders, past and present. We draw inspiration from their traditional care of the land, water and air and join them in protecting these for all Victorians; now and in the future.

03 Chairperson's report

It is my great pleasure to present EPA's *Annual Report 2018–19*, and to share with community what has been a momentous year for environment protection in Victoria with the passage of the *Environment Protection Amendment Act 2018*.

Due to take effect on 1 July 2020, this Act recognises the critical role that environment protection plays in the lives of all Victorians and the need for a world-class regulator that is equipped to deal with current and emerging environmental risks.

Our new Act also represents a landmark achievement for many at EPA and the Department of Environment, Land, Water and Planning (DELWP) who worked tirelessly to develop draft legislation. To all those involved, thank you for your vision and commitment to bringing positive change for generations to come.

2018–19 also marked EPA's first year as an independent statutory authority and the establishment of its Governing Board, which has provided a foundation for strong governance and leadership.

This year also saw the establishment of EPA's Science, Engineering and Health Committee, with members Professor Veena Sahajwalla, Professor Peter Breen, Professor Sandra Kentish, Dr Angie Bone, Professor Robert Vertessy and Professor John Warner guiding our science-based approach alongside EPA's Chief Environmental Scientist, Dr Andrea Hinwood.

In September 2018, we farewelled former Chief Executive Officer, Nial Finegan. On behalf of the Governing Board, I thank Nial for his commitment to EPA's work and valuable contribution to our organisation.

I'd also like to take this opportunity to recognise the leadership of incoming Chief Executive Officer, Dr Cathy Wilkinson. In tandem with our operational activities, Cathy has supported and guided our Executive Leadership Team and staff through an immense year of challenge and change, including significant regulatory challenges in the waste and recycling sector.

I extend my gratitude to my fellow Governing Board members for their leadership and acknowledge the contribution of Debra Russell who resigned from the Board in June 2019.

Lastly, I'd like to thank EPA staff for rising to the many challenges that come with significant change and for their passion and commitment, which drive our vision to be a world-class regulator for Victoria. It is a true privilege to serve as their Chair.

I look forward to making this vision a reality as we continue to work together to protect the health of our environment and the lives of all Victorians.

Ms Cheryl Batagol PSM
Chairperson
Environment Protection Authority Victoria

Melbourne
3 September 2019

04 Chief Executive Officer's report

In early 2017, the Victorian Government released its response to a public inquiry which examined the future of EPA. This Inquiry made 48 recommendations about how EPA can be better equipped to meet the environmental and public health challenges of today, and the future. It set in motion the biggest transformation in our history.

Throughout the Inquiry, Victorians made it clear they want a world class regulator that effectively and proactively protects their health and environment from the harmful impacts of pollution and waste. In 2018-19, we have been firmly focused on delivering on that vision and the Government's recommendations through our transformation program.

Guiding the delivery of EPA's transformation and our commitment to preventing harm is our strategy, *Our environment, Our health* and our five strategic goals: prevent harm; equip community and business; be an influential authority; respond to harm; and organisational excellence. More than ever, we're focused on working with communities to address the greatest environmental risks and responding to the environmental and public health issues that matter to them.

Under the leadership of EPA's Chief Environmental Scientist, Dr Andrea Hinwood, we are also enhancing our scientific capabilities, and data and intelligence, to support evidence-based decision making across all levels of EPA, and providing environmental public health advice to Victorians.

Preventing harm to the community

In March 2019, we successfully removed a 500,000-tyre stockpile at Numurkah, north of Shepparton, in partnership with Moira Shire Council and with the support of the Country Fire Authority (CFA) and Victoria Police. The removal of this stockpile eliminated the significant fire risk at this site for the local community.

As part of EPA's transformation, we've continued to expand our compliance and enforcement activities through the implementation of a Sanctions Strategy. This has resulted in a steady improvement in our regulatory performance including the completion of a record 2,782 inspections – 519 more than last year. We also successfully completed 23 prosecutions arising from 15 separate environmental incidents, with 41 per cent of charges laid within 12 months (compared with 6 per cent in 2017–18).

Stockpiling at resource recovery facilities

Throughout the year, EPA took strong regulatory action against resource recovery facilities that were stockpiling materials. These actions were taken in order to minimise fire risk and protect the health and wellbeing of Victorians and their environment.

Our leadership of the Victorian Government's Resource Recovery Facilities Audit Taskforce has played a key role in identifying and managing high-risk recycling facilities that store combustible recyclable waste materials. In 2018–19, the taskforce completed 292 inspections and issued 109 notices and 24 sanctions across 164 resource recovery facilities.

Waste crime

A number of warehouses illegally stockpiling chemical waste were discovered throughout the year and are now being cleaned up by WorkSafe, Victoria's dangerous goods regulator, with the support of EPA and other agencies.

The scale of deliberate waste crime uncovered reinforces the need for EPA to become a stronger law enforcement agency with improved intelligence and data analytics capability, modern digital systems and more effective compliance and enforcement. New legislation with stronger powers will commence on 1 July 2020 and further improvements are in progress, but there is still much to be done.

In 2018-19, we increased our inspections of licensed hazardous waste facilities as well as intel-driven inspections of unlicensed premises; mandated a shift to electronic rather than paper waste transport certificates; and established better intelligence sharing with our co-regulators.

We are also investigating offences under the Environment Protection Act. The community rightly expects that those responsible for causing environmental damage are held to account, and EPA will rigorously pursue those who do the wrong thing.

04 Chief Executive Officer's report continued

Environmental public health advice

Providing information and advice relating to the possible health impacts of pollution and waste is an important part of our regulatory role. Our incident air monitoring capability was deployed to large industrial fires, the Gippsland bushfires and during planned burns to provide community information on air quality. Our Beach Report program, which monitors beach water quality over summer, also continues to play an important role in helping Victorians make informed decisions about their health.

Following the devastating impact the Tottenham fire had on Stony Creek, in Melbourne's inner west, EPA continues to work very closely with the local community, Melbourne Water and councils to monitor the waterway and support recovery and remediation work.

In 2018–19, we provided advice to the community following the release of health advisories recommending restricted consumption of fish and ducks from certain waterbodies. This advice was based on our Emerging Contaminants Ambient and Biota Program which tested for a range of emerging contaminants in water, soil, sediment and biota (fish and ducks) at 44 locations across Victoria.

Our people

On a final note, I would like to thank our staff for their service and commitment during what has been a challenging year as we continue to transform EPA into a modern, world class regulator for Victorians and ready ourselves for new environment laws on 1 July 2020.

We acknowledge that whilst steady progress is being made, there is still much work to be done and are committed to continuing to improve to meet the needs and expectations of Victorians. I look forward to the year ahead as we continue to transform environment protection, for a better Victoria.

Dr Cathy Wilkinson
Chief Executive Officer
Environment Protection Authority Victoria

Melbourne
3 September 2019

05 Purpose and functions

EPA is an independent statutory authority under the *Environment Protection Act 2017*. Our job is to prevent and reduce harm from pollution and waste. We do this in several ways, including:

- working with the community, industry and business to prevent and reduce the harmful impacts of pollution and waste on Victoria's environment and people
- holding polluters to account
- supporting all Victorians to understand their obligations under the law
- providing clear advice on the state of our environment so that they can make informed decisions about their health.

The Act defines EPA's powers, duties and functions, and provides a framework for the prevention and control of air, land and water pollution, industrial noise and waste.

EPA works across Victoria. We have regional offices in Bendigo, Dandenong, Geelong, Traralgon and Wangaratta. EPA's Centre for Applied Sciences is in Macleod. Our central office is located at 200 Victoria Street, Carlton. This year, we opened a new office at 181 William Street, Melbourne.

EPA is part of the Energy, Environment and Climate Change Portfolio. The responsible Minister for the 2018–19 reporting period was the Hon. Lily D'Ambrosio MP, Minister for Energy, Environment and Climate Change.

EPA works with portfolio partners – DELWP and Sustainability Victoria (SV) – to develop environment protection policy and legislation and to deliver programs that support protection of the environment.

EPA also works closely with other Victorian Government departments and regulators to achieve better environmental and health outcomes and enable economic development. This includes WorkSafe Victoria, the Department of Health and Human Services (DHHS), emergency services and local government.

06 Transforming environment protection for a better Victoria

On 9 August 2018, the Victorian Government passed the *Environment Protection Amendment Act 2018* – providing the foundation for a transformation of Victoria's environment protection laws and EPA.

Due to take effect on 1 July 2020, this Act introduces a new approach to environment protection, focusing on preventing waste and pollution impacts, rather than managing those impacts after they have occurred. It also enhances the protection of Victoria's environment and human health through a more proportionate, risk-based preventative model that includes:

- a general environmental duty (GED) that requires people to undertake reasonably practicable steps to minimise risks of harm to our environment and human health from pollution and waste. From government to business to community, the GED will apply to all Victorians
- a tiered system of EPA permissions to support risk-based and proportionate regulatory oversight
- significant reforms to contaminated land and waste management
- increased maximum penalties that recognise the seriousness of harm caused to human health and the environment
- requirements for more environmental information to be publicly available
- modernising and strengthening EPA's surveillance and intelligence capabilities to take timely and informed regulatory action to better hold polluters to account.

Under the new laws, waste generators, transporters and receivers will all have duties to ensure that waste ends up at an EPA-authorised site. That will usually mean a waste disposal site with an EPA licence, permit or registration.

Industries must take steps to ensure that waste is appropriately managed by:

- identifying and classifying waste
- providing the required information to waste transporters and receivers to help them take it to the right place
- taking reasonable steps to ensure their waste ends up at an EPA-authorised site.

To ensure EPA is delivering on the Victorian Government's response to the Independent Inquiry and equipped to work with Victoria's new legislation, we're undergoing a multi-year transformation program across our organisation.

This transformation program is our roadmap for the changes we need to make to deliver better environment and public health outcomes for Victorians and has seen us deliver a range of initiatives in 2018–19, including:

- creation of proposed subordinate legislation and regulations that will support Victoria's new *Environment Protection Act*
- implementation of a Sanctions Strategy to drive our approach to holding polluters to account and tackle new environmental challenges
- creation of clear and accessible industry guidance to ensure that businesses have access to the information they need to manage environmental risks
- establishment of new industry reference groups that incorporate representation from the small business, manufacturing, construction, infrastructure, agriculture, major industries and waste and recycling sectors in addition to our existing community reference group
- enhancement of our emergency management capabilities, including regional and major hazard planning
- a strengthened and formalised advisory role in relation to land-use planning and mining
- the trial of a new website as part of our commitment to providing Victorians with clearer and more accessible information.

07 Victoria's environment in 2018–19: a snapshot

Air

Victoria's air quality has improved significantly over recent decades and is good by international standards. Despite this, air pollution remains an important human health and environmental issue in our state. The air pollutants of most concern are particulate matter ($PM_{2.5}$ and PM_{10}) and ground-level ozone.

EPA is responsible for the regulation, monitoring, assessment and reporting of air pollution in Victoria. We measure air pollution at our 21 monitoring stations in Melbourne, Geelong, Latrobe Valley and Wangaratta. In 2018–19, we recorded low levels of pollution at our air monitoring stations most of the time. However, levels of $PM_{2.5}$ (particles smaller than 2.5 micrometres) were elevated at times, with the $PM_{2.5}$ air quality standard exceeded between zero to eight days (or between 0.14 per cent and 1.53 per cent of the time), depending on the monitoring site. Air monitoring stations in the Latrobe Valley had more instances of elevated $PM_{2.5}$ levels than other monitoring stations. For more information about EPA's work in the Latrobe Valley, refer to page 18.

In most cases, high $PM_{2.5}$ levels were attributed to smoke from planned fuel reduction burns, private land burning, bushfires, wood heaters, and from a build-up of general urban pollution (motor vehicles, local commercial and industry). Elevated $PM_{2.5}$ levels usually occurred during cold, still days which reduced the dispersion of air pollution.

In 2018–19, air quality was occasionally poor at our air monitoring stations in Alphington, Footscray, Dandenong, Mooroolbark, Traralgon and Geelong due to elevated levels of PM_{10} (particles smaller than 10 micrometres). The PM_{10} standard was exceeded overall on nine days, ranging from 0.27 per cent to 2.03 per cent of the time, depending on the monitoring site. Dust was the main source of PM_{10} in these instances, with most peaks of PM_{10} occurring during dry, windy conditions (on six days) or from land-burning smoke (on three days).

The ozone air quality standard was exceeded on one day at our air monitoring stations in Dandenong and Footscray in December 2018. However, this only occurred for brief periods of time.

EPA notifies the Victorian community about poor air quality through our daily air quality forecasts. These are published via Twitter, Facebook and on our website. Air quality information is reported hourly on our EPA AirWatch website. When we detect high levels of $PM_{2.5}$, the website automatically displays cautionary health advice. This advice provides practical steps that people can take to reduce their exposure to $PM_{2.5}$ in smoke.

EPA is leading the review of national ambient air quality standards (ozone, NO_2 and SO_2) on behalf of the Commonwealth States and Territories. The Ambient Air Quality National Environment Protection Measure (NEPM) provides a national framework for monitoring and reporting on exposure to common ambient air pollutants. A variation to the NEPM is being proposed to update the air quality standards to reflect the latest science on the health risks from these air pollutants. Consultation in major cities and a webinar has provided an important opportunity for stakeholders to be informed about the impact statement and proposed variations and ask questions.

Brooklyn Industrial Precinct

The residential area south of the Brooklyn Industrial Precinct has a long history of poor air quality events due to high levels of dust. As a result, EPA has monitored PM_{10}, the major component of dust, at Brooklyn since October 2009. Since that time, local air quality has not met the PM_{10} air quality standard on several days each year as seen in Table 7.1.

As dust is one of the major contributors to poor air quality in Brooklyn, EPA continues to work with local business to reduce dust emissions. This work includes requiring duty holders to seal internal roads within their premises and to undertake dust suppression watering of dirt roads.

In 2018–19, the PM_{10} standard was exceeded 22 times, compared with 16 exceedances in 2017–18. This increase is most likely due to the dry, windy conditions during the year, especially in summer and autumn.

In 2018–19, EPA continued to produce specific air quality warnings for Brooklyn when strong northerly winds were forecast. EPA increases surveillance on high-risk days. We shared these air quality forecasts with local schools, businesses and community.

This year, we also conducted additional air monitoring using sensors located around the industrial precinct. These sensors provide us with information about local air quality and help inform our response to pollution

07 Victoria's environment in 2018–19: a snapshot continued

issues in Brooklyn. EPA continues to work with local businesses in the industrial precinct to incorporate dust suppression measures and management practices at their individual sites to better manage and mitigate dust impacts.

Odour

The most common sources of odour pollution in Victoria include landfill operations, chemical plants, food processing plants and the improper treatment of sewage. Odour pollution does not usually cause long-term health effects, but can result in headaches and nausea, as well as significant discomfort and stress. EPA regulates odour pollution from industry and agriculture. Community odour reports help us detect and regulate odour pollution.

One of Victoria's most common odour pollution issues in 2018–19 was the proximity of houses to animal industries, with significant increases in odour reports in the areas around saleyards, abattoirs and rendering plants.

A particular concern for community has been the establishment of a new saleyard in Miners Rest (approximately 14 kilometres north-west of Ballarat), which has generated 472 odour complaints since October 2018. Throughout the year, EPA issued two remedial notices and continues to work with the local community, industry and Ballarat City Council to resolve the issue.

In 2018–19, residents near the Brooklyn Industrial Precinct continued to be affected by odour pollution, although there were 31 per cent fewer odour reports compared with 2017–18. EPA is working with businesses in the area to rectify dust and odour sources and to manage site practices to reduce their environmental risks. We are confident that planned upgrades for key industries should further reduce odour complaints in the future.

Overall, EPA received 4,090 odour reports in 2018–19, compared with 4,466 in 2017–18. We issued a total of 18 remedial notices, compared with 13 notices last financial year.

EPA has continued to take a strong preventive focus by developing up-to-date pollution prevention strategies for odorous sites in Brooklyn, Laverton North and Miners Rest, and publishing new guidance that will improve the way industry manages, assesses and remedies odour issues.

Noise

Noise can affect people's health and wellbeing. EPA has an important role in protecting the community from noise pollution. We do this by developing guidance and policies, and regulating noise from industry. EPA, Victoria Police, local government and other government agencies share the responsibility for regulating noise pollution in Victoria.

EPA's specialist applied scientists, Environment Protection Officers and Officers for the Protection of the Local Environment (OPLEs) respond to local noise pollution issues. In 2018–19, more than 100 noise assessments were conducted by our applied scientists; and our OPLE officers conducted more

Table 7.1: Brooklyn Industrial Precinct summary statistics

INDICATOR	2018–19	2017–18	2016–17	2015–16	2014–15	2013–14	2012–13	2011–12	2010–11
Days where dust levels (PM_{10}) exceeded the limit[2]	22	16	13	10	17	29	33	20	19
Rainfall (mm)	420	449	515	403	383	459	386	611	850
Pollution reports related to odour	597	940	428	336	169	158	427	485	628

Notes:

1. A hot, dry summer during 2018–19 contributed to a higher number of days than expected where dust level exceeded the limit; this period was one of the driest six months recorded since we started monitoring dust in Brooklyn.
2. Data validation can take up to six months. Figures for 2016–17 and 2017–18 have been revised to reflect final validated data.

than 150 noise inspections – almost three times the number of inspections in 2017–18. We issued 39 pollution abatement notices relating to noise, compared with 14 notices in 2017–18.

In 2018–19, we focused on preventing noise pollution from infrastructure and resource projects. We did this by working with and providing advice and guidance to government and our industry partners to minimise noise from major infrastructure and resource projects.

This year, EPA also reviewed and updated the Environment Protection (Residential Noise) Regulations. These regulations apply to noise from residential premises and residential premises under construction and list specific types of equipment and times when their use is prohibited, if they can be heard from another residence.

Water

Water pollution is an important environmental and human health issue in Victoria. Human activities and the changes we make to the environment affect the health of our water ecosystems and people. EPA helps protect Victoria's water environments and is responsible for regulating pollution and waste entering waterways. We do this through environmental laws, policies and regulatory controls, and by working in partnership with Victorian communities, water authorities, businesses and government.

Freshwater

2018–19 was another dry year, with low rainfall recorded in most catchments leading to low flows in streams and rivers, and the drying out of lakes and wetlands. This resulted in reduced water quality across much of the state, with low levels of dissolved oxygen in many waterways. Low levels of oxygen can cause fish deaths and increase stress on other animals.

This year also saw run-off from emergency incidents, such as industrial and warehouse fires, impacting water quality. For example, the run-off from the West Footscray/Tottenham warehouse fire in August 2018 had a significant impact on water quality in nearby Stony Creek. Many chemicals, such as oils, solvents, herbicides and heavy metals, washed into the creek. This pollution also significantly affected members of the local community, who were unable to use the creek and avoided the surrounding parks due to unpleasant odours. EPA continues to monitor the creek's water and sediment quality many months after the event, and we are working closely with local community and Melbourne Water as part of the recovery and remediation program.

Emerging contaminants, such as PFAS, were detected at multiple locations across Victoria in 2018–19. These substances pose an ongoing risk to water environments and human health and EPA issued various advisories and continues to engage with affected communities.

Marine

In 2018–19, natural events and human activities impacted the marine environment, and in some cases, posed potential risks to human health.

Unusually warm, still conditions in November and December resulted in an algal bloom stretching from Apollo Bay to Ocean Grove. *Noctiluca scintillans*, the species responsible for the spectacular 'red tide', is not toxic to humans. However, in January and February 2019, warm conditions and high nutrient levels led to a toxic algal bloom in the northern part of Port Phillip Bay which lasted for seven weeks. As a result, EPA issued water quality alerts via our Beach Report program.

EPA issued daily water quality forecasts during summer for 36 beaches. Overall, a total of 76 per cent of forecasts were for 'good' water quality, with only 7 per cent forecasting 'poor' water quality consistent with previous years; the remaining 17 per cent of days had fair quality water.

Plastic pollution remained an important issue of concern in 2018–19. The local community continued to find plastic nurdles (very small pellets of plastic) in the environment from a 2017 spill in Warrnambool.

Groundwater

Polluted groundwater is usually a long-term environmental legacy of poor environmental practices above ground. These include incorrect storage or disposal of liquids to land, and the leaking of underground storage tanks.

EPA identifies potential groundwater pollution through a range of programs and activities we manage, including Victoria's environmental

07 Victoria's environment in 2018–19: a snapshot continued

audit system. In 2018–19, auditors identified over 50 groundwater sites requiring clean-up to the extent practicable (CUTEP). From these, 15 groundwater quality restricted use zones (GQRUZ) were identified. GQRUZ are included in the online contaminated land and groundwater tool, Victoria Unearthed.

Victoria's increased use of geothermal groundwater resources has the potential to pollute groundwater. In 2018–19, EPA worked with DELWP and water authorities to develop guidance that will inform the community and industry of regulatory expectations on geothermal groundwater use and developments. This will help prevent the pollution of groundwater from geothermal activities.

Land

EPA is responsible for regulating contaminated sites and landfills.

Sharing information about contaminated land and groundwater is a key part of protecting Victorians from the effects of land pollution. In 2018–19, EPA and DELWP launched Victoria Unearthed, an online tool that allows the community, government and EPA-appointed environmental auditors to search for information about past uses and other factors that may indicate the potential for contamination. The tool incorporates data from EPA's audits, past and present landfill sites and maps of groundwater quality restricted use zones (RQRUZ). It also utilises more than 160,000 historical records of past and present Victorian businesses that may present a potential risk of land or groundwater contamination due to past activities and land uses.

08 2018–19 Performance

EPA's work is guided by our organisational strategy, *Our environment, Our health*, which sets out our path to becoming a world-class regulator that prevents and reduces harm from pollution and waste.

2018–19 was the second year of the strategy's implementation. The *Annual Plan 2018–19* sets out our delivery priorities according to our five key goals:

- **1. Prevent harm**
- **2. Equip community and business**
- **3. Be an influential authority**
- **4. Respond to harm**
- **5. Organisational excellence**

This section of the Annual Report summarises EPA's performance against our Annual Plan and how we have delivered on our five goals, with a focus on addressing the recommendations arising from the 2017 government response to the Independent Inquiry into EPA and responding to emerging risks to Victoria's environment and human health through targeted enforcement, compliance, and intelligence-gathering programs.

Regulatory performance

Official warnings

150

Prosecutions

23

Infringement notices for environmental offences issued within 65 days

66% ↑ compared to 21% in 2017-18

Forty-one per cent of charges laid within 12 months

41% ↑ compared to 6% in 2017-18

08 2018–19 Performance continued

GOAL 1 Prevent harm

We prevent harm from pollution and waste by leveraging good environmental performance across community, business and government.

Outcome 1.1

Provide regulatory services that deliver the greatest preventative effect, informed by science and intelligence

EPA'S REGULATORY FRONTLINE

To help prevent harm to the environment and the Victorian community, EPA appoints authorised officers under the *Environment Protection Act 1970* (EP Act).

These authorised officers are our frontline and deal with waste and pollution issues across Victoria 365 days a year, supported by our 24/7 call centre (1300 EPA VIC).

This year, we completed a record 2,782 inspections – 519 more than last year.

We also issued more remedial notices, official warnings and infringement notices – reflecting our stronger presence on the ground and increased focus on waste crime and issues such as waste stockpiling and illegal chemical waste storage operations.

Our authorised officers also play a critical role in helping industry and business understand their environmental obligations and how to meet them.

EPA's Chief Executive Officer, Dr Cathy Wilkinson and Chairperson, Ms Cheryl Batagol PSM, with newly authorised EPA officers at a graduation ceremony in June 2019.

Building our data and intelligence capabilities

To deliver the best environmental outcomes for Victoria, we're committed to improving our data and analytics capability so that we can make informed and effective regulatory decisions. This focus includes the increased use of data analysis, statistical modelling, business profiles, maps and imagery analysis to inform our work.

Throughout the year, EPA's advisory and intelligence function played an important role in helping us detect waste crime, including the discovery of inappropriately stockpiled chemical waste.

Data analytics and intelligence also informed EPA's work with the Victorian Government's Resource Recovery Facilities Audit Taskforce, helping us identify high-risk stockpile sites and regulate resource recovery facilities to require combustible recyclables and waste materials to be stored and managed appropriately.

There is significant work underway to strengthen and expand EPA's data and intelligence capabilities and better share intelligence with other local, state and national agencies. This is critical to becoming both a more preventative regulator and a stronger law enforcement agency better able to deter waste crime and hold those responsible to account.

Intelligence-Led Prioritisation Process (Pilot 2018)

EPA successfully piloted the Intelligence-Led Prioritisation Process to identify and classify potential threats to the environment and human health from pollution and waste.

This pilot used hazard control documentation tools that take into consideration factors such as the number of people potentially affected by a hazard, the likelihood of exposure, the severity of health impact and the vulnerability of the exposed community.

Going forward, EPA will undertake a two-yearly cycle that will strategically identify emerging public health and environmental hazards and rank the top ones according to the level of risk.

EMERGING CONTAMINANTS AMBIENT AND BIOTA TESTING

A key priority for EPA is understanding the extent and characteristics of emerging contaminants in the Victorian environment.

Emerging contaminants are chemicals released into the environment that may harm ecosystems or humans, but for which we may not yet have clear environmental standards. Examples include per- and polyfluorinated alkyl substances (PFAS), pesticides, fire retardants and industrial chemicals.

This year, our Emerging Contaminants Ambient and Biota Program tested for a range of emerging chemical contaminants in water, soil, sediment and biota (fish and ducks) at 44 locations across Victoria. This work analysed 218 chemicals and led to the release of new EPA publications 1734 *(PFAS in Victorian waterfowl: investigation of the presence of PFAS in 19 wetlands in Victoria)* and 1736 *(Ambient concentrations of PFAS in the Latrobe Valley)* and a scientific paper in *Science of the Total Environment* (an international peer-reviewed journal).

In 2018–19, our Chief Environmental Scientist, Dr Andrea Hinwood, and EPA experts also travelled throughout Victoria to meet with the community and key stakeholders following the release of health advisories recommending restricted consumption of fish and ducks from certain waterbodies.

As part of our work to prevent harm to the environment and human health, Dr Hinwood continued to lead an interagency working group that oversaw a program to understand the extent of emerging contaminants in waterfowl and recreationally caught fish in Victoria. Interagency members include Parks Victoria, Arthur Rylah Institute, Game Management Authority, the Department of Economic Development, Jobs, Transport and Resources (DEDJTR), the Victorian Fisheries Authority and the Department of Health and Human Services (DHHS).

Understanding the sources, characteristics, and extent of emerging contaminants in the Victorian environment was a focus for EPA in 2018-19.

Outcome 1.2

Support good performance, a level playing field and continuous improvement through effective regulation

Periodic licence reviews

EPA's Periodic Licence Review Program ensures that the licences we issue reflect changing science, environmental conditions and community standards.

Throughout the year, we progressed our review of the coal-processing, mining and extractive industry sectors.

As part of the review of the brown coal-fired power stations, EPA held a community conference (under s. 20B of EPA's legislation) in Traralgon in August 2018 to better understand community concerns and possible resolutions for EPA and the power station operators to consider in the review process. This conference brought together community members, regulators and licence holders to help them understand and contribute to the licence review process.

Forty-five licences were reviewed or amended, with the licences held by brown coal-fired power stations AGL Loy Yang A, IPM Loy Yang B and Energy Australia expected to be finalised in 2019–20.

Licence compliance assessments

EPA proactively inspects high-risk sites to ensure licence holders comply with their licence conditions and prevent harm from waste and pollution. With 246 assessments completed in 2018–19, the program saw an increased focus on environmental monitoring plans required under EPA licences.

EPA completed the licence compliance assessments using intelligence from our Licence Operator Risk Assessment model. This risk based approach assesses the range of key risks involved with a site, activity, operator and their management systems to inform the frequency of EPA's compliance inspections, and complements our other strategic and responsive compliance work.

Major industry program

EPA classifies major industries as those that generate large volumes of waste, discharge high volumes of emissions or treated effluent, or store or process large volumes of hazardous materials. Typical sectors include refineries, power stations and chemical manufacturing, and we regulate some of Victoria's largest and most complex industrial sites to identify and manage potential environmental risks.

Many of these sites have existing EPA licence conditions or may already be identified by WorkSafe Victoria as a major hazard facility. Major industries also include large-scale manufacturers that are ceasing or reducing operations in Victoria, and which may leave considerable environmental legacies from past operations.

EPA conducts assessments of major industry sites with a detailed audit-based review of environmental management systems, with a focus on the environmental risks identified and associated controls.

Outcome 1.3

Encourage increased participation by business and community in preventing and managing environmental risk

Revision and implementation of the Management and Storage of Combustible Recyclable Waste Materials (CWRM) Guideline

Fires at waste facilities can cause short and long-term environmental harm as well as significant public health impacts on communities.

To equip facilities to comply with Victoria's Waste Management Policy (Combustible Recyclable and Waste Materials), EPA partnered with CFA and MFB and government stakeholders in 2018–19 to produce a revised version of the Combustible Recyclable Waste Materials (CRWM) Guideline.

This guideline supports industry and business to effectively manage their environmental risks, and it provides a framework for CRWM management. To develop the guideline, we consulted with key stakeholders, including industry peak bodies and the operators of waste and resource-recovery facilities.

DRAIN DETECTIVES

Established in 2014, EPA's Citizen Science program encourages community involvement in our work to prevent harm from pollution and waste.

A key program highlight this year was the launch of the Drain Detectives project, which saw members of the community help us monitor water quality at five beaches with historically poor bacterial water quality. In 2018–19, the program targeted beaches at Sandringham, Mentone, Mordialloc, Dromana and Rye. Between December and May, volunteers used smartphones to take photos and report observations of drains flowing and sample flows for ammonia (a proxy for faecal pollution). This helped us better understand drain flows at popular beaches and determine potential health risks to swimmers.

We recruited 57 volunteer Drain Detectives and trained them at their local beach so they could submit their observations and test results. Staff from our partner councils also completed training and submitted reports.

EPA staff and our Drain Detectives volunteers during training at Mentone Beach in October 2018.

In addition to training citizen scientists to collect water flow data, we also worked with Monash University to develop and trial water quality sensors. These will be operational for the 2019–20 summer to monitor drain flows. This data will further improve our understanding of flows from drains at popular beaches.

Drain Detectives was financed through the Port Phillip Bay Fund and EPA staff worked in partnership with Kingston, Mornington and Bayside councils, South East Water, Melbourne Water, Monash University, Port Phillip EcoCentre and Life Saving Victoria.

Drain Detectives

Drain Detectives reports

338

Trained volunteers

57

Water quality findings

34% **Reports of drains not flowing**

57% **Reports of small-sized drain flows**

6% **Reports of medium-sized drain flows**

3% **Reports of large-sized drain flows**

31% **Dry weather flows with ammonia detected**

Latrobe Valley air-quality monitoring network

In February and March 2014, a fire burned in the Hazelwood coal mine for 45 days – the largest and longest-burning mine fire to occur in Victoria's Latrobe Valley.

This fire triggered many reforms across state and local government, community and industry sectors, including the development of a new air monitoring network by EPA in collaboration with the Latrobe Valley community.

In 2016, EPA began work on a co-designed process to develop a new expanded air monitoring network, enabling community members to determine their own needs with support from EPA's technical experts.

Throughout the year, work continued on the roll-out of the new air monitoring network, with the installation of equipment chosen by the co-design panel. This equipment includes $PM_{2.5}$ and PM_{10} monitors and 13 new particle sensors to provide a more extensive warning system for air pollution from smoke. We also installed three cameras to help monitor for signs of visible air pollution.

Outcome 1.4

Provide early advice to influence land use planning decisions

Environmental Effects Statements for major projects and planning scheme amendments

In Victoria, public works sometimes require an assessment of the potential environmental impacts or effects of the proposed development under the *Environment Effects Act 1978*. This assessment is called an Environment Effects Statement (EES), and it enables statutory decision makers to determine whether a project should proceed.

During 2018–19, EPA made significant contributions to EES projects including Fingerboards Mineral Sands, Goschen Mineral Sands, Bunyip North Quarry, Boundary Road Quarry, Willatook Wind Farm and Crib Point Gas Import Jetty and Pipeline.

We also provided expert advice on major transport infrastructure construction projects such as Melbourne Metro Tunnel, West Gate Tunnel and the Level Crossing Removal project, and precinct developments such as Fishermans Bend and Defence Site Maribyrnong.

In 2018–19, EPA participated on the Technical Reference Group (TRG) for the North East Link Project (NELP). As a TRG member, EPA provided advice to NELP and DELWP on potential impacts to public health and the environment from the project design.

EPA's role in land planning

The government's response to the EPA Inquiry committed to strengthening our planning role and providing greater support to planning authorities to prevent harm to the environment and public health.

In October 2018, Ministerial Direction 19 (MD19) was issued by the Minister for Planning under the *Planning and Environment Act 1987*, requiring planning authorities to seek early advice from EPA when undertaking strategic planning processes and preparing planning scheme amendments that may significantly impact Victoria's environment, amenity and/or human health due to pollution and waste.

In 2018–19, EPA provided Victorian councils, DELWP and the Victorian Planning Authority with planning advice on more than 1,000 occasions – a record for EPA.

We also developed policy in collaboration with other state government agencies on matters including intensive animal industries, land uses around landfills, strengthening buffers in the planning scheme and dealing with contaminated land.

GOAL 2 Equip community and business

We support Victorians to understand the condition of their environment, and we work to ensure shared responsibility is accepted and understood by community and business.

Outcome 2.1

Provide timely, accessible information on the condition of Victoria's environment and expert advice on the human health impacts of pollution and waste

EPA AirWatch

EPA is responsible for the regulation, monitoring, assessment and reporting of air pollution in Victoria. Pollutant concentrations measured at EPA's ambient air monitoring stations are compared against the relevant national and state air quality standards. EPA also monitors air quality during major air pollution incidents when required.

Pollutant concentrations measured at EPA's 21 ambient air monitoring sites and incident sites are compared against the relevant national and state air quality standards. This air quality data is displayed on a webpage called EPA AirWatch using air quality categories to contextualise the information. Data from each location is updated hourly to give the community timely information about their air quality.

When concentrations of $PM_{2.5}$ at certain sites has been high in the past 24hrs, we issue health advice to the community on EPA AirWatch. The health advice provides practical steps to reduce the impacts of smoke exposure.

This year, we started the process of re-designing EPA AirWatch to provide practical and timely health advice from more pollutants at our monitoring sites. With this work, we will help prevent exposure to unsafe levels of air pollution.

Environmental monitoring strategic framework

Monitoring programs help EPA understand the condition of Victoria's environment and trends over time. They also help us identify risk and inform our response to emergency incidents.

This year, EPA developed a new framework to support delivery of our Applied Science Strategy and improve our ability to monitor and assess pollution and waste through more defined and targeted monitoring programs for air, noise, odour, water, land and waste. Over the coming year, we will develop monitoring and reporting plans for each environmental segment to further embed this framework.

Improving how we communicate

In 2018–19, EPA developed a new strategy to help us identify the most effective communication channels to reach our different audiences. The strategy responds to recent audience research and emerging digital trends, including the growth of Facebook and Twitter as mainstream communication channels and is helping to inform our communications approach.

This year, work also commenced on the development of a new user-friendly website to make it easier for Victorians to find the information they're looking for, and to understand the changes to Victoria's environment protection laws. In September 2018, we published a mobile-friendly beta version of the website and invited feedback. This feedback helped inform the design process, and we look forward to launching our new website in the first half of 2019–20.

Other initiatives to enhance EPA's communication and engagement included an updated interactive voice response system (IVR) at our contact centre that interacts with callers and gathers information about their enquiries to provide our customer service staff with better insights. In addition, we launched our Facebook presence to share news and information with community in real time.

BEACH REPORT AND YARRA WATCH

Each summer, EPA forecasts and monitors water quality at 36 beaches around Port Phillip Bay and four sites along the Yarra River (in partnership with Melbourne Water) as part of our work to prevent harm to human health and help Victorians make informed decisions. Swim advisories are issued on days when high bacterial levels are detected.

Water quality is determined by levels of bacteria that can pose an increased risk of disease for humans. Increased risk of illness primarily occurs when water is contaminated with human or animal faeces. The information we report on the Yarra and Bay website (yarraandbay.vic.gov.au) and through Twitter includes water-quality forecasts, weekly water-quality monitoring and alerts about pollution incidents, fish deaths and algal blooms.

Yarra Watch monitors E. coli in the river (fresh water). The level of human faecal sources in stormwater or other pollution can vary according to the duration and intensity of rain and depends on land use or activities in the Yarra's large catchment. Beach Report monitors enterococci levels, which is an indicator of faecal pollution. Faeces may carry any number of disease-causing organisms (pathogens), with gastroenteritis being the most common illness experienced by swimmers.

Studies in previous summers have found human and animal faecal contamination at Port Phillip Bay beaches or in stormwater drains. During rain events, pollutants in run-off wash down stormwater channels and out into the bay, which increases the risk of disease for swimmers at nearby beaches.

When a rain event occurs, Beach Report issues a water-quality forecast of 'poor', advising people to avoid swimming near stormwater outlets, rivers and creeks for 24 to 48 hours after rain has stopped. This advice is based on 16 years of Beach Report monitoring data. In 2018–19, EPA issued daily water quality forecasts during summer for 36 beaches.

Overall, 76 per cent of forecasts were for 'good' water quality, 18 per cent were 'fair' and 6 per cent were 'poor'. This is comparable to forecasts in previous years.

On two occasions during the 2018–19 summer season we advised the community to avoid swimming for a short time after unexpected elevated bacterial levels were detected (once at St Kilda and another time at Seaford).

Forecasting algal blooms in Port Phillip Bay

Algae are present year-round in Port Phillip Bay but can become algal blooms in the days or weeks after heavy rains that carry an increased nutrient load into the bay. Sometimes this may include one or more toxin-producing species, which can cause harm when people eat seafood (particularly shellfish) exposed to the bloom. EPA issued two algal bloom alerts last summer for bay beaches.

EPA water-quality forecast sign at Mordialloc Life Saving Club.

Outcome 2.2

Provide clear advice and guidance that supports compliance with environmental obligations

We continue to support business and industry to implement better management practices, particularly in relation to the prevention of land, groundwater and stormwater contamination, and to assist this, we developed 10 industry guidance materials in 2018–19 which are available on our website.

These materials focused on areas such as managing combustible recyclable and waste materials, contamination at shooting ranges and the potential environmental impacts of agricultural activities, and they follow the establishment of our Industry Guidance Unit in July 2017.

Work is currently underway on an Auto Parts Recyclers' Guideline with the assistance of the Victorian Automobile Chamber of Commerce (VACC) to provide guidance to businesses who dismantle motor vehicles and motorcycles and re-sell used parts.

We also developed a training partnership with the Victorian Waste Management Association (VWMA) to build capability and capacity within the waste sector in the preventative management of combustible recyclable and waste materials.

Outcome 2.3

Facilitate community engagement in environmental management and decision making

New industry reference groups

To help us better understand and respond to the industries EPA regulates, we implemented a new industry reference group model that incorporates representation from the small business, manufacturing, construction, infrastructure, agriculture, major industries and waste and recycling sectors.

The new model includes attendees from almost 100 industry associations and relevant state government bodies, with our first meetings held throughout May 2019.

We also continued the longstanding and successful community and water industry reference groups, as well as a strategic advisory group. The strategic advisory group consists of CEOs or Victorian heads of major industry associations, a representative from local government, environment groups and the trade union movement.

Outcome 2.4.1

Participate in the Victorian Government's Resource Recovery Facilities Taskforce and ensure recycling facilities are effectively managing combustible recyclable and waste material

Resource Recovery Facilities Audit Taskforce

In July 2017, a fire started at the SKM Services Coolaroo recycling plant that took 20 days to extinguish and impacted the community and our environment.

This fire was the catalyst for the establishment of the Resource Recovery Facilities Audit Taskforce and increased powers for EPA to regulate resource recovery facilities that present a safety risk to community.

During the year, the taskforce completed a total of 292 inspections and issued 109 remedial notices and 24 sanctions across 164 resource recovery facilities.

Other significant actions included:

- Development of the *Waste Management Policy (Combustible Recyclable and Waste Materials)* by DELWP and EPA. This policy was gazetted on 28 August 2018 and is now the key tool used by EPA and the taskforce to address fire risk at resource recovery facilities.
- Publication of the *Managing combustible recyclable and waste materials: Guideline*, which now states what information should be readily available to responding firefighting personnel. This information contains, at a minimum; the nature, location and potential inventory of stored materials, fire protection arrangements, emergency contact information and other resources available.
- Development of plans to deliver stockpile training support for councils and industry operators of transfer stations through the metropolitan transfer station network.

From 1 July 2019, the Taskforce will also conduct inspections to monitor compliance with the Waste Management Policy (E-waste), following Victoria's decision to ban e-waste being sent to landfill.

KEEPING COMMUNITY SAFE FROM HARM

A key outcome for the Resource Recovery Facilities Audit Taskforce has been EPA's strong enforcement action against SKM following the company's failure to ensure their operations complied with the requirements of the Victorian Waste Management Policy (introduced in August 2018 to improve safety standards at waste and resource recovery facilities).

This regulatory action meant that SKM was unable to accept waste at its Laverton North and Coolaroo sites on several occasions throughout 2018-19 due to non-compliance issues.

The non-compliances by SKM posed an unacceptable fire risk for local communities and our environment. EPA's regulatory actions were taken in order to minimise this fire risk and protect the health and wellbeing of Victorians and their environment.

EPA has also laid charges against SKM for the 2017 fire at its Coolaroo site. Proceedings are expected to commence in early 2019-20.

During 2018-19, SKM was unable to accept waste at its Laverton North (pictured above) and Coolaroo sites on several occasions due to non-compliance issues.

Broderick Road, Lara intervention

EPA has also used its regulatory powers this year to act on a large illegal waste stockpile at Lara after the previous operator, C&D Recycling, let the recycling waste grow to dangerous levels and abandoned the site – leaving behind an unacceptable fire risk to the local community.

In March 2019, the occupier and owner of the site went into liquidation – heightening the need for EPA to step in.

The Victorian Government has provided initial funding of $30 million to maintain fire-prevention measures and clean up the site – a job that could take several years due to the volume of material. The site contains an estimated 320,000 cubic metres of mostly construction and demolition waste, including materials such as timber, concrete, bricks, plaster, glass and ceramics.

EPA intends to pursue all relevant parties to recover the costs of the fire-prevention measures and clean-up.

Outcome 2.4.2

Undertake an annual stakeholder insights survey to develop an improved and more consistent understanding of EPA's network of stakeholders and how they can be leveraged to deliver better outcomes

A key priority for EPA is better understanding our community, industry and government stakeholders and their perceptions of our regulatory role and work.

Over the year, we interviewed a cross-section of our stakeholders, including unlicensed businesses and licence holders, on their awareness and perceptions of EPA, as well as their attitudes to compliance. We also ran focus groups with the community.

The results of this research are helping us develop more effective communications and engagement solutions to better meet the needs of Victorians.

GOAL 3 Be an influential authority

We are a trusted source of advice on Victoria's environment and influential in working with others to address complex problems resulting from pollution and waste.

Outcome 3.1

Use applied science expertise to shape EPA's monitoring, identification, reporting and response to environmental and human health risks

Research and development program

This year, EPA partnered with organisations such as RMIT University, University of Newcastle, University of South Australia, Agriculture Victoria, Department of Health and Human Services (DHHS), Food Standards Australia New Zealand, Monash University, La Trobe University, Australian Catholic University and Water Research Australia to access specialist scientific expertise and undertake research that will help us achieve better environmental and public health outcomes.

For example, one project establishes an understanding of the different sources of antibiotic-resistant microbes, which will help us better regulate the land application of waste, target industries during our review of licence conditions, and identify gaps so that targets and objectives for antimicrobial resistance can be obtained for environmental reference standards.

In another project, researchers are investigating the quantity of PFAS ingested by livestock from soil, water and forage and how long it takes to clear from an animal. This study will enhance our understanding of potential PFAS impacts at agricultural sites and inform regulatory action to manage exposures to PFAS in the food chain.

In practical terms, this research has resulted in better community consultation and engagement, by addressing farmers' concerns more directly and supported evidence-based use of EPA's regulatory tools such as notices.

EPA is undertaking several projects as part of our research and development program including:

Development of a rapid, low-cost, portable detection method for E. coli and enterococci

Current methodologies to analyse faecal bacterial indicators in the environment require testing in a laboratory and a minimum turn-around time of 24 hours using a hand-held testing device. This project aims to develop a test that will provide in-situ rapid detection using strips. This technology will then be used in real-time during faecal contamination events such as sewage spills and to monitor recreational water quality.

Review and recommendations for environmental justice indicators

EPA has contracted RMIT's Centre for Urban Design to undertake a focused literature review of environmental justice (EJ) indicators across Australia and internationally. This research will provide an authoritative basis to inform a framework which will help EPA identify and respond to environmental justice issues across Victoria.

Review of state of knowledge for microplastics in aquatic environments

Microplastics are an emerging contaminant of concern due to their increasing presence and persistence in the environment. Their small size (<5mm) and chemical characteristics enable adsorption of pollutants onto the plastic surface and may lead to transport of these contaminants into the environment and food webs.

In 2018-19, EPA commenced a project to review the literature in this emerging field of science to better understand the evidence base for potential risks to the environment and human health from microplastics, and approaches for mitigation. Research indicates that modern wastewater treatment plants are relatively efficient at removing microplastics such as clothing fibres, filaments and microbeads from sewage. However, the work has also highlighted several knowledge gaps, in particular, a lack of quality-assured representative data on microplastic emissions from wastewater in Victoria.

The outcomes of this project will assist EPA to continue targeted research into microplastics, including preliminary sampling and analysis of microplastics across Victoria and evaluating options for future regulation of microplastic sources.

Review of new techniques to test the effect of emerging contaminants on ecosystems through measurement in food webs (interlocking and interdependent food chains), understanding livestock exposure and elimination of per- and polyfluorinated alkyl substances (PFAS)

The purpose of the project is to conduct a literature review on emerging contaminants concentrations within the aquatic systems (water, sediment and biota) and to evaluate the potential for biomonitoring to assess aquatic ecosystem health. The review discusses current efforts that have been made worldwide to use bioindicators (flora, mammals, macroinvertebrates, diatoms and fish) in aquatic ecosystems and to summarise the challenges in employing these tools in Victoria.

Identification of risks associated with waste management, re-use or disposal

Many wastes can negatively impact human and environmental health if managed inappropriately.

This research helped develop a systematic framework to identify pathways from waste management activities and assess links to potential environmental and human health impacts. It also identified technological and management activities available, their potential for active/direct exposure pathways and appropriate risk controls.

Projects completed included:

- the cataloguing of wastes according to properties and hazards
- the identification of potential exposure pathways for selected wastes
- an investigation of the monetary cost of impacts on health and the terrestrial environment
- the development of a model to assess the interaction between landfill liners and chemicals
- behavioural interviews with hazardous waste researchers and regulators to identify key knowledge gaps, including data on impacts of wastes and emerging contaminants
- the identification of potential environmental and human health impacts from the residuals of waste to energy facilities and food waste dehydrators.

Delivering Victoria's Air Quality Strategy

The Victorian Government is developing a Victorian Air Quality Strategy in 2019. Led by the Department of Environment, Land, Water and Planning (DELWP), this strategy will help Victoria tackle emerging air-quality challenges, outline sustainable and cost-effective policies and programs, and empower all Victorians to reduce air pollution.

EPA's role is to support DELWP by providing technical advice on the impact of significant sources of air pollution on the environment and human health. In August 2018, we published *Air pollution in Victoria: a summary of the state of knowledge* (publication 1709) to coincide with the Victorian Government Clean Air Summit. EPA staff also presented on a range of issues – from health impacts of air pollution, to the measurement and modelling of pollution.

More than 160 people participated in the summit, which helped to identify actions to improve air quality over the coming decade and provided submissions to DELWP relating to the content of the Air Quality Statement and summit. These submissions were published on the **environment.vic.gov.au** website.

Outcome 3.2

Partner with key agencies to address complex pollution and waste challenges

Illegal waste disposal presents significant risks to the environment, human health and the wider economy. In 2018–19, the Victorian State Budget provided $9.133 million to EPA to run our Illegal Waste Disposal Program between 2018 and 2022.

The program tackles illegal waste disposal through targeted compliance and enforcement activities based on data analytics, intelligence and surveillance; partnerships with other Victorian regulators; and communication and engagement with key stakeholders such as the building and construction industry.

In 2018–19, we delivered a range of initiatives to address illegal practices and risks in three target sectors: government infrastructure projects, the mid-tier building sector and the interface between the real estate and skip bin industry.

The first initiative focused on our investigation and analysis of the pipeline of government infrastructure works, including the likely volume and impact of construction and demolition waste to enable informed decision making. This work led to the development and implementation of EPA publication 1655, *Toolkit for the management of solid waste from civil and construction and demolition*, a guideline targeting those involved in the procurement of major government led construction. It has also strengthened our relationship with government departments and procurement officers responsible for the approval and delivery of government-led infrastructure works.

Our second initiative targeted unlawful waste management practices in the mid-tier building sector, including small to medium-scale residential and commercial development. This project involved delivery of the multi-agency Build Aware Program in collaboration with the Victorian Building Authority (VBA), Energy Safe Victoria, WorkSafe Victoria and Consumer Affairs Victoria, as well as the development of guidance about construction sites, and the development of new data sharing arrangements with VBA.

The Build Aware Program was successful in delivering education, compliance and enforcement, and communication and engagement opportunities for us, our co-regulatory partners and residential building industry stakeholders across Victoria. During the project, multi-agency teams conducted 465 residential building site inspections, of which 101 inspections were conducted by EPA. Outcomes of this program ranged from advice to remedial action. The program is driving better building practices and illegal waste disposal outcomes.

Our third initiative focused on how the real estate and skip bin industries interact. Key deliverables included the development of guidance on the storage and abandonment of waste and engagement with the real estate sector about landowners' and agents' responsibilities. The development of Publication 1680.1, *Landlord and agents fact sheet: Storage and Abandonment of Waste* assists commercial landlords and real estate agents in understanding the risks associated with stockpiled waste and the requirements for due diligence.

PFAS and emerging contaminants – reporting, advice and support

For EPA to be an effective and preventive regulator, we need to understand the sources, characteristics and extent of emerging contaminants in the Victorian environment.

This year, we continued our work to better understand the potential environmental and public health harms of PFAS – a group of manufactured chemicals historically used in firefighting foams and other industrial and consumer products that persist in humans, animals and the environment for many years. Although there is no consistent evidence that PFAS are dangerous to human health, they have been shown to adversely affect aquatic life such as fish as well as land animals.

In August 2018, we brought together technical experts from across Australia and New Zealand to improve knowledge and assessment of PFAS concentrations and their potential impact. This meeting facilitated information sharing and promoted a joint approach to PFAS risk assessment across jurisdictions in the agriculture, health and environment sectors. In February 2019, we hosted a summit of regulators to share approaches and information.

Following the publication of Australia's first PFAS National Environmental Management Plan in February 2018, work also commenced on updated guidance in 2018–19 with publication expected to occur during 2019–20. This work was led by the Commonwealth Department of the Environment and Energy, under the direction of the Heads of EPAs Australia and New Zealand (HEPA), with more than 500 people attending information sessions across Australia and 50 written submissions received during consultation between March and June 2019.

Outcome: 3.3

Collaborate with other regulators to remain at the forefront of regulatory practice

Memorandum of Understanding with Earth Resources Regulation

We recognise that strong relationships with our co-regulators is fundamental to addressing current and emerging environmental issues and remaining at the forefront of regulatory practice.

During the year, we signed a Memorandum of Understanding (MoU) with Earth Resources Regulation (ERR) to help ensure consideration is given to environment and human health impacts in the resourcing and mining sector.

This MoU has helped us work in a more coordinated way and resulted in the development of a combined inspection schedule of sensitive and priority sites. Going forward, we will explore more opportunities for collaboration and resource efficiencies in areas such as training, site inspections and enforcement action.

In 2018–19, we also hosted community forums across Victoria with ERR, WorkSafe Victoria and DELWP to raise awareness of changes being made to the regulatory environment and to provide community with an opportunity to ask questions.

In June, we joined ERR and WorkSafe Victoria for a Latrobe Valley Mine Rehabilitation Commissioner community forum on the roles of each regulator in mine rehabilitation. ERR and EPA continue to take a collaborative approach to the Hazelwood power station decommissioning and mine rehabilitation.

BUILD AWARE PROGRAM

EPA continues to be an active participant in the Victorian Government's Build Aware Program. This program creates an opportunity for regulators to collaborate and strategically communicate key messages to the building industry on their regulatory responsibilities.

In 2018–29, Build Aware inspected 465 residential, industrial and commercial building sites across regional Victoria, including Shepparton, Bairnsdale and Ballarat.

During inspections, EPA officers looked for environmental problems including contaminated stormwater, sediment runoff and uncontrolled litter, as well as problems with the disposal of construction and demolition waste, including asbestos.

Engagement activities also included a free Build Aware Tradies' Breakfast at Ballarat and a TAFE education program at Shepparton that provided carpentry and plumbing apprentices with a training session focusing on their legal obligations as tradespeople.

EPA staff chatting with tradespeople in Bairnsdale.

Subordinate Legislation Reform Project

With Victoria's new environment protection laws due to take effect from 1 July 2020, EPA is working with DELWP to deliver the Subordinate Legislation Reform Project.

This project considers the nature of any new environment protection regulations, environment reference standards and other necessary legislative instruments required to support Victoria's new environment protection framework.

These regulations and standards are required to give effect to the *Environment Protection Act 2017*, as amended by the new *Environment Protection Amendment Act 2018*. They provide EPA with the regulatory tools to reduce the risk of harm to human health and the environment from pollution and waste.

EPA continued to develop and deliver a consolidated suite of regulations and environment reference standards in collaboration with DELWP, the Office of the Commissioner for Better Regulations and the Office of the Chief Parliamentary Counsel. We also developed impact assessments that set out the costs and benefits of the proposed subordinate legislation.

Outcome 3.4

Enhance our environmental public health capability through the development of an Environment Health Tracking Network

In December 2016, EPA became responsible for delivering environmental public-health functions related to waste and pollution following the transfer of this responsibility from DHHS. Over the past 12 months, EPA has further embedded this capability into our business and delivered sound advice on risks to public health from pollution and waste.

Work began this year on the design of an Environmental Health Tracking Network (EHTN). This tool will become a single source of reliable environmental public health data to provide the public, health bodies, scientists and policy makers with an accurate picture of environmental impacts on Victoria's population. EPA will continue work on the EHTN in 2019–20.

GOAL 4 Respond to harm

We hold polluters to account and work with our partners to respond to pollution and emergency incidents and legacy contamination to minimise harm to Victoria's environment and people.

Outcome 4.1

Implement EPA's Sanctions Strategy to deliver timely and proportionate consequences for those who do the wrong thing

We are committed to applying regulatory sanctions efficiently and effectively to improve compliance and ensure those who do the wrong thing are held to account.

This commitment resulted in the implementation of our Sanctions Strategy and has seen significant improvement to various annual performance measures, including increases on average to the timeliness of official warnings, infringement notices and prosecutions, as well as an increase in the number of sanctions issued. Refer to Table 8.3 for further information.

Drone technology

The use of drone technology in recent years has been an important addition to EPA's enforcement toolkit – boosting our ability to not only detect illegal activity as it happens, but also safely and efficiently gather evidence.

This year, we introduced state of the art drones with ground penetrating radar (GPR) technology which use 3D imaging to look for disturbed earth and are capable of identifying buried objects such as chemical drums, carcasses, asbestos and cement to depths of up to 40 metres.

In 2018-19, we conducted 366 investigative flights, including 112 detailed surveys, two thermal imaging surveys and 27 surveys trialling our GPR technology. Thirty investigative flights resulted in enforcement action.

Restorative justice

In July 2018, we began a research partnership with the Australian National University to undertake a three-year project that will explore how restorative justice can be used as a prevention tool in environmental regulation.

This project has been made possible through a $900,000 Australian Research Council Linkage Grant awarded to ANU and will involve researchers engaging directly with EPA staff and our external stakeholders including community and duty holders.

One of the research outcomes is a 'restorative justice continuum', which will identify the restorative justice opportunities across the regulatory spectrum.

In the regulatory area, prosecutions have provided opportunities for restorative outcomes in favour of Traditional Owners. Under the Environment Protection Act, a company or individual found guilty of an environmental offence can be directed by the court to fund an environmental project (instead of, or in addition to, paying a fine). These project orders are commonly sought by EPA to achieve restorative environmental outcomes through the sanctions process.

In February 2019, our Coliban Water prosecution resulted in a $100,000 environmental project to the Dja Dja Wurrung Clans Aboriginal Corporation to work with Taungurung Land and Waters Council Corporation on an Aboriginal Waterway Assessment of the Campaspe River. This project will guide future policy and restoration of the river environment. It also supports recognition of the rights and interests of our Traditional Owners and captures their local biodiversity knowledge.

In May 2019, our Porsche Retail Group Australia Pty Ltd prosecution resulted in $100,000 towards the Merri and Birrarung Rehabilitation project after waste oil from the company's Collingwood dealership entered a stormwater drain and made its way into the Yarra River.

This project is being led by the Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation and will bring together traditional Wurundjeri Country management techniques with contemporary water management technologies to improve the river's water quality, revegetate the banks, and investigate the reintroduction of native shellfish.

Outcome 4.2

High-quality reporting of pollution incidents and timely risk-based response

Centralised dispatch function

Key to EPA's ability to respond to harm in a timely way is our centralised dispatch function which triages community and business pollution reports.

Introduced in 2018, this function centralises the assessment and prioritisation of pollution reports and allocates them to one of our regional offices for response. This new centralised model is the first step in improving consistency in the prioritisation of, and responsiveness to, reports.

During 2018-19, 6,591 incidents were created from pollution reports received by EPA. Of these, 6,202 were assessed and prioritised by our central dispatch team and 2,572 of these actioned by them, with the balance being handled by other parts of EPA. This frees up regional staff to focus on higher-risk and more complex matters in their communities.

Central dispatch has a key performance indicator (KPI) of triaging 80 per cent of water pollution reports and business notifications within 30 minutes of receipt by EPA. Following this, incidents are responded to in line with EPA's triage policy. Since reporting began in January 2018, the central dispatch function has exceeded its KPI with an average of 95 per cent of reports being triaged within the target timeframe.

An important part of EPA's role is also engaging directly with reporters to source additional information on pollution to assist our investigations and to ensure they are made aware of the outcomes of their reports.

Over the next year, we will continue to make improvements to ensure pollution reporters understand the important role they play in mitigating pollution and holding polluters to account. Additional improvements are also underway to further strengthen quality assurance around the whole pollution reporting system and ensure EPA is providing the best possible service to Victorians.

BROOKLYN INDUSTRIAL PRECINCT PROGRAM

Since 2008, EPA has worked to regulate local businesses and industry to reduce pollution and environmental impacts on the Brooklyn community. Located in Melbourne's inner west, Brooklyn contains more than 60 industries including landfill, recycling sites and abattoirs, and it regularly exceeds air-quality standards.

As a result, EPA monitors the emission of PM_{10} (particulate matter under 10 micrometres in size and the major component of dust) in Brooklyn and works with residents, industry, councils and other government agencies to improve amenity in the area.

Key components of our work in Brooklyn include:

- the issuing of warnings to schools and businesses on high-risk days and the deployment of EPA officers for rapid response to pollution reports
- an Officer for the Protection of the Local Environment (OPLE) who works across Brimbank and Hobsons Bay councils to proactively identify and respond to dust, odour and other amenity concerns
- proactive odour monitoring to understand type of odours being experienced in the area and identify potential odour sources
- a Memorandum of Understanding with Brimbank City Council to build on the work undertaken by EPA and council in engaging with local community and industries to improve environmental outcomes for the municipality
- contribution to Brimbank City Council's award-winning Brooklyn Evolution Project, a strategy that sets out the long-term vision for the precinct
- representation on the Brooklyn Industrial Precinct Strategy Committee
- continued support for the Brooklyn Community Representative Group (BCRG), including attendance at its regular meetings and public events to provide opportunities for the local community and industry to discuss issues.

In 2019–20, work will commence on a study on particulate matter in inner Melbourne which will help to further inform our work in Brooklyn.

OFFICERS FOR THE PROTECTION OF THE LOCAL ENVIRONMENT (OPLE) PILOT PROGRAM

This year, the Officers for the Protection of the Local Environment (OPLE) pilot continued.

This program aims to reduce environmental and amenity impacts from lower-risk waste and pollution issues through the placement of specially trained EPA officers within 13 local councils: Central Goldfields, Buloke, Loddon, Port Phillip, Casey, Greater Dandenong, Surf Coast, Wyndham, Greater Shepparton, Mildura, Wodonga, Brimbank and Hobsons Bay.

Known as OPLEs, officers work with their assigned councils to identify and resolve smaller-scale local pollution and waste issues such as small- to medium-scale illegal dumping, litter, noise and dust and odour complaints arising from business and industry.

In 2018–19, our OPLEs completed 748 inspections at 532 sites and served just under 80 notices. In municipalities with OPLEs, response times to local pollution and waste reports have more than halved.

In May 2019, EPA received $3.4 million from the Victorian Government to expand the OPLE pilot, which will see the recruitment of approximately four to six OPLEs for four to 10 partner councils.

Reports
580

Reports
37%
resolved with council

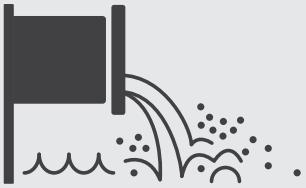
Notices
78

Sanctions
9

Inspections
748
across 532 sites

Top pollution and waste issues

Water



Noise

Illegal dumping

Outcome 4.3

Provide technical advice on pollution and waste that makes a significant contribution to Victoria's emergency management system

As Victoria's environmental regulator, EPA plays a critical role in supporting Victoria's emergency management agencies by providing expert advice on environmental conditions and public health risks and taking steps to prevent and mitigate harm stemming from pollution and waste.

This year, we responded to 92 emergency incidents including five major emergency activations: the West Footscray/Tottenham factory fire, bushfires at Rosedale and in Eastern Victoria, the fire at Bradbury Industrial Services at Campbellfield, and planned burns. These activations required a total of 87 days of response and the support of approximately 150 EPA staff at various times.

Following the West Footscray/Tottenham fire, as we do after all major incidents, we undertook an extensive debriefing and review process to identify opportunities for improvement. Significant work continues across EPA to improve our emergency response capability, including training more staff, enhancing our communications and engagement support during emergencies, and procuring new equipment to support rapid environmental monitoring data.

During the East Victorian fires in the summer of 2019, we carried out broad geographical air monitoring over three weeks across Gippsland and East Gippsland, Yarra Ranges and north-east Victoria. This monitoring supported timely, localised health advice in affected areas, and highlights the maturing of our incident air monitoring program.

In April 2019, we also demonstrated the progress we have made in improving our emergency response capability and capacity during the Bradbury Industrial fire, with environmental monitoring commencing within the first few hours, supported by rapid public health messaging and advice. We also supported other agencies during the incident by providing technical advice on environmental and public health impacts.

We also delivered a total of 33 training courses to 394 EPA staff throughout the year, enabling more than a quarter of our workforce to assist with emergency response – significantly boosting our capacity to respond to incidents and support other emergency response agencies.

Environmental public health

Consistent with our focus on preventing harm to human health from pollution and waste, we informed community of potential health impacts during significant emergency events and incidents and provided technical support to emergency management agencies.

Our environmental public health function also provided advice to community in relation to air quality during the year, as well as information about specific sites including Stony Creek following contaminated water run-off from the West Footscray/Tottenham fire site, and precautionary advice for the Maribyrnong River relating to PFAS originating from Melbourne Airport.

An important part of our role in preventing harm is ensuring smoke impacts from bushfires and planned burns are monitored and that community are kept informed of health risks.

During the planned burns period in 2019, EPA worked with CFA, Forest Fire Management Victoria and other agencies to monitor smoke impacts and disseminate community messaging. This work involved us using smoke impact models to assess the risk to communities and then implement incident air monitoring. Our air monitoring equipment enabled us to monitor in real time the impacts of smoke and to tailor specific advice for communities. Data collected by our incident air monitors was also shown live via our AirWatch service on EPA's website.

Environmental advice – emergency operations and capability

The Independent Inquiry into EPA identified a need for greater clarity around our role during emergency events – in particular, that our technical and scientific expertise be utilised more effectively to support Victoria's emergency management response.

To better reflect EPA's technical adviser role, amendments were made this year to the *Emergency Management Manual Victoria*. This manual is the guiding document for the state's emergency management, providing role statements that define who does what. In collaboration with Emergency Management Victoria and DELWP, EPA's previous role as a control agency for pollution of inland waters was transferred to DEWLP.

Further changes to the manual to better define EPA's new role as a technical adviser under Victoria's emergency management arrangements

have been completed and are awaiting approval by Victoria's peak emergency management body, the State Crisis and Resilience Council.

Within EPA, significant work was undertaken to develop supporting plans and guidance materials for our internal incident management system to ensure that we can have the capability and capacity to perform our role in emergencies and when we respond to reports of pollution in the community.

We also focused on improving the transfer of specialist knowledge between EPA's technical specialists and staff who have roles in supporting other agencies during emergencies. This has further built our capability to provide advice and support during the lifecycle of an emergency event.

During the year, EPA supported Victoria's maritime emergency response capability through working groups with the State Maritime Emergencies Working Group and overseas deployment. In February 2019, an EPA staff member was deployed to the Solomon Islands to support a clean-up operation following an oil spill.

STONY CREEK RECOVERY

On 30 August 2018, a warehouse located in the industrial precinct of Tottenham caught fire – resulting in large quantities of chemical waste, such as oils, solvents, herbicides and heavy metals, discharging into nearby Stony Creek.

Due to the nature and extent of contamination, recovery efforts have been complex and extensive, with EPA providing technical support to Melbourne Water and their operations team regarding the removal of contaminated sediment.

Earlier this year, EPA sampling results helped to inform desilting works to remove sediment from the most heavily contaminated section of the creek – an 800-metre section between the fire site and Paramount Road. To date, approximately 1,800 cubic metres of sediment have been removed by excavators and processed and treated before being safely transported to an EPA-licensed landfill. Sediment sampling by EPA continues to inform desilting works.

Given the impact of the fire on the local environment and the health and wellbeing of residents, EPA worked closely with community – engaging with more than 1400 individuals at pop up information booths in Yarraville and Footscray, and during walks along impacted waterways.

EPA also ran a series of science and environmental health learning activities at Gowrie Clare Court Early Learning Centre in Yarraville about the impact of the fire on Cruickshank Park where the centre regularly runs their bush play program.

To support the long-term rehabilitation of Stony Creek, EPA has contributed $750,000 for the implementation of key actions in the Stony Creek Rehabilitation Plan. Led by Melbourne Water in partnership with EPA and Maribyrnong City Council, this plan has been developed in consultation with the local community and identifies long-term actions to restore, enhance and protect the creek and its surrounds into the future.

EPA is committed to the rehabilitation and restoration of the creek and will remain actively involved.

As part of our Stony Creek recovery work, EPA staff ran a series of science and environmental health learning activities at Gowrie Clare Court Early Learning Centre in Yarraville.

Outcome 4.4

Identify and manage legacy contamination to ensure land is efficiently returned to safe and useful purpose

Victoria Unearthed

EPA worked closely with DELWP to develop and deliver an interactive online map to help the community locate existing information about potential land and groundwater contamination. It brings together environmental and historical data in an easy-to-use spatial format – enabling users to quickly access information about land, groundwater, past business activities and contamination.

Data available in Victoria Unearthed includes:

- **Priority Sites Register:** sites where EPA has issued a clean up notice or pollution abatement notice
- **EPA Licensed Sites:** sites with a current EPA licence
- **Environmental audits:** sites where environmental audits have been completed.
- Groundwater Quality Restricted Use Zones: An area, site or property where an environmental audit has been conducted and residual groundwater contamination was found
- **Victorian Landfill Register:** locations of current and former landfill sites across Victoria
- **Environmental Audit Overlays:** a Victorian planning scheme overlay indicating where an audit is required prior to land being used for a 'sensitive use'
- **Historical business listings:** Over 560,000 digitised historical business listings from the Sands and McDougall Directories (old 'phone books') between 1896 and 1974

Victoria Unearthed is available at **www.environment.vic.gov.au/victoria-unearthed**.

Shooting Ranges Contamination Project (Year 2)

Target shooting sports, conducted at shooting ranges across Victoria, play a valuable role in the community. Activities at shooting ranges, however, can cause contamination and pose a risk to human health and the environment.

This year saw us continue our Shooting Ranges Contamination Project with the creation of an enhanced database of the location and risk profile of Victorian shooting ranges.

To support the mitigation of risks associated with lead contamination at shooting range sites, EPA successfully partnered with the shooting community and government stakeholders to produce a comprehensive guide to assist outdoor shooting ranges to manage the contamination risks caused by lead-based ammunition.

Co-branded with the six key shooting associations in the sector (Field and Game Australia, Sporting Shooters' Association Australia, Victoria, Victorian Amateur Pistol Association, Victorian Clay Target Association, Victorian Rifle Association, Victorian Sporting Clays Association), this guide is an Australian first and globally significant due to the limited pool of publications available.

To our knowledge, this guide is also the only publication to be co-designed and endorsed by the shooting sector. This endorsement sends a strong message and is a great example of EPA partnering with the community and stakeholders to co-design solutions to complex problems.

Preliminary Risk Screening (PRS) pilot

Victoria, like other economies with a significant history of settlement and industrial activity, has a legacy of sites that have been contaminated by past pollution and inappropriate waste management practices.

In response to concerns raised by Victorians during the EPA Inquiry, EPA and DELWP worked with stakeholders to deliver a pilot of Preliminary Risk Screening (PRS) – a risk-based approach to assessing contaminated sites.

This pilot is being conducted in two stages from April 2018 to January 2020 on sites owned by participating councils and aims to help them work through the environmental audit process. In cases where sites have been identified as having low risk of contamination, the PRS may be used – saving landowners and planning authorities time and money.

In early 2019, an independent evaluation of the pilot during its first stage helped shape its design, delivery and implementation. A second independent evaluation will be undertaken before the PRS becomes a statutory process in July 2020.

The introduction of Victoria's new environment protection laws next year will also result in a more rigorous and proportionate approach to the management of contaminated sites through the use of scoped audits. Current audit requirements necessarily involve detailed site investigations which can be costly, and may be unnecessary for sites where planning authorities require audits that are not warranted. The PRS seeks to address this.

GOAL 5 Organisational excellence

As an organisation, EPA commits to delivering on its goals by enabling a high-performance culture that values our people, and supports them with fit-for-purpose systems and expertise.

Outcome 5.1

Deliver services that reflect community, business and government expectations

Ministerial Statement of Expectation and Budget Paper 3 output targets

In October 2018, the Minister for Energy, Environment and Climate Change issued a Statement of Expectation for EPA for 2018-20. This statement sets out the Minister's expectations for EPA to deliver the Victorian Government's reforms to environment protection.

In 2018–19, we achieved all of the measures stipulated in the Minister's Statement of Expectation. Further information on our deliverables is detailed in Table 8.5 on page 40.

During the year, EPA also met all Budget Paper 3 (BP3) service delivery outputs. These outputs are measured through EPA's performance in preventing and reducing harm from pollution and waste through better regulation, conducting research and gathering intelligence to inform compliance activities. Further information on our BP3 outputs is detailed in Table 8.4 on page 39.

Supporting our people

EPA's skilled and highly-valued staff are key to our success – now, and into the future. The new legislation, a cornerstone of which is the general environmental duty, will change the mix of activities we ask of our workforce and the capabilities they need to achieve the best possible outcomes for Victorians.

To help EPA plan and develop the workforce capability we need under our new Act, we are updating our capability development strategy. This strategy will articulate the critical capabilities EPA's needs in its future workforce and the capability development priorities and approach to get there informed by leading practice.

In 2019–20, we will train and reauthorise approximately 250 delegated decision makers, including our authorised officers, so that they are equipped to support industry and business with the transition to Victoria's new laws.

In 2020 and beyond, our strategy will outline a roadmap to develop the capability we need to strengthen our regulatory craft, help mature EPA as a contemporary regulator, and deliver on our organisational strategy, *Our environment, Our health*.

Engaging Victorians in Science

EPA's Citizen Science Program encourages community involvement in EPA's work to prevent harm from pollution and waste. We also run a range of events to share our scientific expertise and what we know about the state of Victoria's environment. These events include our highly successful Environmental Science Series.

Launched in 2017 by our Chief Environmental Scientist, Dr Andrea Hinwood, EPA's Environmental Science Series is a program of free public lectures addressing issues affecting the environment of Melbourne and Victoria. These lectures help to deliver on our Applied Science Strategy by enhancing community access to scientific information and advice.

Each lecture is promoted through social media, online channels and mainstream media and attended by community members from a wide variety of backgrounds. We also live stream each lecture over the internet to reach audiences outside Victoria and Australia. This year's lectures reached over 500 people per seminar and covered the following topics: 'Antimicrobial resistance outside the hospital walls', 'PFAS exposure: bioaccumulation and associations with health effects' and 'The vulnerability of children to environmental exposures'.

International Day of Women and Girls in Science

On 7 March 2019, EPA hosted an inaugural event at Melbourne's Royal Society of Victoria to celebrate International Day of Women and Girls in Science.

Showcasing the skills and experience of some of Victoria's leading female scientists, this event aimed to encourage secondary school-aged girls to pursue STEM careers.

Dr Marguerite Evans-Galea, co-founder and CEO of Women in Science, Technology, Engineering,

CSIRO STEM PROFESSIONALS IN SCHOOLS PROGRAM

As a science-led organisation, EPA plays an important role in engaging young Victorians in science and STEM (science, technology, engineering and math) careers.

As part of our focus on promoting STEM, EPA is involved in CSIRO's Education and Outreach Program: STEM Professionals in Schools. Run nationally, this program provides an opportunity for us to share our expert knowledge and experience with school students, with over 20 of our staff volunteering their time this year.

We look forward to continuing our involvement in STEM Professionals in Schools in 2019–20 and inspiring young Victorians to consider STEM careers.

Year 4 students from Macedon Primary School exploring the world of macroinvertebrate (water bugs) as part of EPA's involvement in the CSIRO's STEM Professionals in Schools program.

Mathematics and Medicine (STEMM) Australia, gave the keynote address, which was followed by a panel featuring Dr Andrea Hinwood, EPA's Chief Environmental Scientist; Dr Bridie O'Donnell, Head of the Office for Women in Sport and Recreation; Dr Amanda Caples, Victoria's Lead Scientist; Dr Gillian Sparkes, Commissioner for Environmental Sustainability Victoria; and Dr Angie Bone, Victoria's Deputy Chief Health Officer.

Panel members spoke about their STEM journeys and experiences, along with their schooling and approaches to study. They also discussed their career pathways and the obstacles they had overcome. This session was followed by a series of break-out sessions to give audience members an opportunity to meet panellists and ask questions.

Outcome 5.2

Good governance

EPA Governing Board

2018–19 was the foundational year for EPA as an independent statutory authority overseen by its Governing Board established under the new *Environment Protection Act 2017*.

The Board leads the development and execution of our strategic priorities – this includes determining how we continue delivering our core services to community, while implementing the changes we need to make in readiness for Victoria's new environment protection laws.

Coinciding with the commencement of the Board, we established two advisory committees: the Risk and Audit Committee and the Science, Engineering and Health Committee.

EPA's Risk and Audit Committee provides independent, risk-based, objective advice to the Board regarding financial reporting, internal and external audit, risk management, the compliance and control environment, and our transformation program.

The Science Engineering and Health Committee operates alongside our Chief Environmental Scientist, Dr Andrea Hinwood, and is responsible for advising our Board members on their role overseeing the implementation of strategic plans which aim to maintain and grow EPA's scientific excellence.

Throughout the year, members of the Board attended various strategic stakeholder

engagements, including meeting with stakeholders in the north-east region of Victoria to discuss how EPA and the legislation is changing.

Outcome 5.3

Implement business systems and processes that continuously improve to support delivery

EDISON project

Collecting, storing and sharing data is essential for a science- and evidence-driven organisation such as EPA. This year we began using a new cloud-based reporting and analytics platform, EDISON (Environment Data Information Systems Online). This platform is now home to Victoria's air quality data and is expected to hold all of the state's environmental data within two years.

For air quality monitoring, EDISON takes data from general, local and incident monitoring equipment, such as our ambient, incident, and Latrobe Valley sensors, then processes this data and feeds it directly to our public air quality website, AirWatch.

EDISON allows EPA's scientists to query more than 40 years of air quality data and get responses in milliseconds – a monumental time improvement to query data. Work completed in 2018–19 means it is possible to connect new types of sensors and have data flowing into the platform within an hour, where previously a new device would have taken days to configure.

Transformation Delivery Capability Uplift

During the year, EPA implemented an agile approach to support the integrated delivery of our transformation program. This approach has helped us focus on delivering new systems, processes and working methods that meet the needs of our end users including our staff, duty holders, co-regulators and community.

We also updated EPA's Program and Project Management Framework to include a five-stage lifecycle to assist with our management of government initiatives such as the implementation of the Victorian Government's response to the Independent Inquiry into EPA. At its core, the framework is focused on continuously improving our organisational capability and accountability and ensuring we use best practice project and program management to deliver outcomes and benefits to the community.

Outcome 5.4

Promote staff safety, health, wellbeing and development

Diversity and Inclusion Strategy 2018–20

EPA is committed to building an organisational culture that strongly supports equality inclusion and represents the diversity of Victoria's community.

Throughout the year, we developed targeted action plans for gender, Aboriginal, cultural and linguistically diversity (CALD), disability and pride inclusion.

As part of our focus on gender inclusion, we implemented a range of actions to support employees affected by family violence. As a result of these efforts, we gained White Ribbon organisational accreditation. EPA is now one of six accredited VPS agencies and joins almost 200 White Ribbon Workplaces globally.

EPA has also introduced annual gender pay audits, with our most recent audit revealing a closure of the gender pay gap. Currently the difference in full-time equivalent (FTE) salaries between male and female employees is 2.55 per cent, which is much less than the Victorian Public Service median salary difference of 12 per cent and the Australian full-time gender pay gap of 14.1 per cent.

During the year, we benchmarked our LGBTIQ+ inclusion policies and practices by participating in the Australian Workplace Equality Index (AWEI). This participation has given us a roadmap to further build on our inclusive practices including introducing gender-neutral bathroom facilities, implementing LGBTIQ+ awareness training and co-sponsoring inclusion events for the community.

Hazardous Materials (HAZMAT) training

A key component of EPA's Applied Science Strategy is enhancing our ability to respond to pollution and emergency incidents.

In May 2019, 33 EPA staff completed expert Hazardous Materials (HAZMAT) training with representatives from the Western Australian Department of Water and Environmental Regulation.

Held over four days, the training was provided to first responder and operational response staff and covered HAZMAT incidents and the handling of hazardous wastes.

Occupational Health and Safety (OHS) Vision and Policy and Health, Safety and Wellbeing Strategy: 2018–21

EPA's commitment to a safe and healthy work environment continued this year with the development of new Occupational Health and Safety (OHS) Vision and Policy and a three-year Health Safety and Wellbeing Strategy (2018–21). This work reflects the importance we place in the health and safety of our staff and an appropriate work and personal life balance.

Key actions included the delivery of safety leadership training, a review and update of key policies and procedures covering employee health and wellbeing topics, fatigue management, emergency rostering, and a review of our risk register in conjunction with key stakeholders.

EPA's OHS performance is detailed in section 13 under the 'Occupational health and safety' heading.

Pollution reports, performance targets and deliverables

In 2018–2019, EPA received more than 11,000 pollution reports from the community, as well as reports related to emergencies and pollution notifications from businesses.

Table 8.1: Total pollution reports

	2018–19	2017–18	2016–17	2015–16	2014–15
Pollution reports from community	11,539	13,244	10,577	9,201	9,376
Emergency reports	199	168	195	246	342
Business notifications[1]	1833	1,880	647	1,565	1,454
TOTAL	**13,571**	**15,292**	**11,419**	**11,012**	**11,172**

Notes:

1. Self-reported by businesses.

Table 8.2: Total pollution reports by region

	GIPPS-LAND	METRO	NORTH EAST	NORTH WEST	NOT ASSIGNED[1]	SOUTH WEST	SOUTHERN METRO	TOTAL
Dust	75	395	35	70	31	124	143	873
Noise	66	898	120	56	117	325	242	1824
Odour	188	1909	187	257	58	846	743	4188
Smoke	50	148	90	31	48	105	79	551
Waste	85	752	122	163	81	257	362	1822
Water	128	1261	92	79	104	199	400	2263
Not Assigned[2]	1	3	2		3	2	7	18
Emergency Report	15	72	16	20	7	36	33	199
Business Notification	257	432	143	89	23	425	464	1833
Grand Total	**865**	**5870**	**807**	**765**	**472**	**2319**	**2473**	**13571**

Notes:

1. As at 30 June 2019, 472 reports were not assigned.
2. As at 30 June 2019, 18 reports were not assigned to a specific pollution segment.

Table 8.3: Compliance, enforcement and assessment activities*

ACTIVITY	NOTES	2018–19	2017–18	2016–17	2015–16
INDUSTRY PROGRAMS					
Inspections	1	2,782	2,263	1,843	1,985
Pollution abatement notices	2, 3	467	392	273	267
Clean-up notices	3	196	180	153	188
Minor works pollution abatement notices	3	68	60	53	59
Prosecutions completed	4	23	22	11	12
Official warnings	3	150	109	99	121
Infringement notices	3	82	81	109	59
Environmental audits completed	5	117	159	181	226
Works approvals issued	3	21	17	18	26
Applications exempt from the need for approval	3	32	33	23	38
Licences amended/transferred	3	79	83	64	82
Planning referrals advised on	6	1020	807	757	798
VEHICLE PROGRAMS					
Noisy vehicle notice	7	892	1,676	966	955
Smoky vehicle advisory letters	8	1,154	1,617	1,744	2,015
Infringement notices	9	338	64	12	45
OFFICIAL WARNINGS	9	40	14	12	11
Litter programs					
Infringement notices	10	13,236	12,165	12,984	15,141

* Prior years' numbers may have changed due to better data becoming available.

Notes:

1. The upsurge can be attributed to programs such as the Resource Recovery Facilities Audit Taskforce and illegal chemical waste investigations, in addition to routine inspection activity.
2. The increase can be attributed to increased Resource Recovery Audit Taskforce activity, and increased capacity in regional offices.
3. The volume of activity for this measure depends on external factors.
4. Twenty-three prosecutions arose out of 15 separate environmental incidents.
5. This measure reflects decisions made in recent years to develop land that was, at the time, not suitable for sensitive uses such as private residences and schools. The number of audits is a lag indicator of contaminated site development confidence.
6. The surge can be attributed to EPA's strengthened role in planning due to Ministerial Direction 19 and engagement with planning authorities, and growth and development in Victoria.
7. EPA received more noisy vehicle reports in 2018/19 (1954) compared with 2017/18 (1593). The drop in notices issued is partly attributed to technical issues relating to identifying the correct location of the report, and partly attributed to diverting resources to other priorities.
8. The decline is attributed to receiving fewer smoky vehicle reports compared with prior years.
9. The increase is attributed to increasing the use of infringement notices and official warnings to address offences such as failing to provide a certificate of compliance with noise vehicle standards, and conducting roadside operations targeting noisy vehicles. A total of 21 roadside operations were conducted across metropolitan and regional Victoria in 2018–19.
10. The number of infringement notices issued relies on the number of reports received from the public. In 2018–19, a higher proportion of reports was converted into infringement notices due to focus on processing and reporting improvements. The number includes infringements from new reports and reissued infringements from notice recipients nominating another person for the offence.

Table 8.4: Budget Paper No. 3 Service Delivery

QUANTITATIVE MEASURES	NOTES	2018–19 TARGET	2018–19 ACTUAL
Inspections that test compliance of licensed premises whose operations may represent a significant risk to the environment and human health	1	250–300	246
Events that engage business and community in environment protection		10–12	12
Activities that support business to comply with environmental obligations	2	15–20	34
Environment condition notifications provided to Victorians via digital channels	3	900–1000	1249
Qualitative Measures			
EPA prosecutions are determined/selected using a risk-based approach, focused on environmental outcomes and are successful	4	70%	100%
Environmental audits are reviewed to ensure compliance with statutory requirements and guidelines	1	90%	94%
Remedial notices are complied with by their due date or escalated in line with EPA's Compliance and Enforcement policy	1	90%	95%
Timeliness Measures			
Pollution reporters requesting follow-up by EPA receive contact within three working days	1	85%	90%
Works approvals and licences completed within required statutory timelines	1	96%	97%
EPA provides technical advice to lead agencies within agreed timelines during emergency incidents	5	90%	100%
Output Cost		$203.6m	$206.2m

Notes:

1. Met within 5% variance, as per Department of Treasury and Finance guidance on output measure performance.
2. 2017–18 was the first year this performance measure was recorded, with results following expectations regarding EPA's increased engagement profile. EPA undertook more engagement activities to educate and engage industry in 2018–19. In line with expectations for an increase in engagement during implementation of legislative reform in 2019–20, this target is being revised upward for the next financial year.
3. The variance from target can be attributed to environmental conditions.
4. EPA utilises a regulatory approach based on risk, and was successful in all prosecutions during 2018–19.
5. During 2018–19, EPA attended to all emergency incidents within agreed timelines. EPA will always endeavour to attend to all incidents, however this is conditional on all required resources being immediately available.

Table 8.5: Minister's Statement of Expectation 2018–19

	2018–20 TARGET	2018–19 PROGRESS
RISK-BASED REGULATION		
Prepare EPA's transition plan to deliver the objectives of the *Environment Protection Amendment Act 2018*	Transition plan in place by 31 December 2018	Completed
TIMELINESS		
Develop and implement an engagement plan for consultation and notification of all works approval holders and licensees of any changes to approval and licensing processes and timetables from the *Environment Protection Amendment Act 2018*	1 February 2019	Completed
COMPLIANCE-RELATED ASSISTANCE AND ADVICE		
Develop and workplan for developing general guidance for compliance with the *Environment Protection Amendment Act 2018*, as well as a workplan for prioritised hazards and sectors	Workplan for industry guidance developed by 1 February 2019	Completed
	Model for industry support consulted by 30 June 2019	Completed
Activities to support business compliance including the development of guidance, business education and support	At least 10 activities	Completed
STAKEHOLDER CONSULTATION AND ENGAGEMENT		
Prepare a stakeholder consultation and engagement plan for reforms arising from the Environment Protection Act 2017 and *Environment Protection Amendment Act 2018* ensuring regular engagement with a broad range of stakeholders	To be provided to Minister by 1 February 2019	Completed
Establish a dedicated channel for stakeholders to request further information on changes to EPA and provide feedback on changes; and ensure EPA communicates information on changes to EPA's operations across its variety of communications channels	By 1 November 2018	Completed
	Regular and timely publication of quality information before any changes take effect	On track
ACCOUNTABILITY AND TRANSPARENCY		
Engage with community and other stakeholders on the development of a Charter of Consultation as per requirement in the *Environment Protection Amendment Act 2018*	Draft by 30 June 2019	Completed
Report to the Minister on EPA's implementation of the *Environment Protection Act 2017* and *Environment Protection Amendment Act 2018*	Quarterly	On track
Report to the Minister on EPA's implementation of its commitments under the Andrews Labor Government Response to the Independent Inquiry into the Environment Protection Authority, through the implementation reporting coordinated by the Department of Environment, Land, Water and Planning	Quarterly	On track

09 Financial performance summary

Overview of financial performance

EPA's net result from transactions for the financial year was a $0.4 million deficit. Both total income and expenses increased during the year, primarily associated with the recognition of $30 million expenditure and funding for waste stockpile clean-up works. The remaining expenditure increase from prior year was due to additional investment to support the Bringing our Environment Protection Authority into the Modern Era initiative, following the passage of the *Environment Protection Amendment Act 2018*. This was primarily funded through increased Prescribed Industrial Waste (PIW) levy income, which was also a primary driver of the 2017–18 surplus position.

Table 9.1: EPA five-year financial summary ($'000)

	NOTE	2019	2018	2017	2016	2015
Total income from transactions	1	176,727	135,505	101,399	91,177	251,571
Total expenses from transactions		(177,150)	(111,286)	(92,010)	(74,833)	(121,284)
Net result from transactions		(423)	24,219	9,389	16,344	130,287
Net result for the period		(255)	22,077	3,656	4,894	128,270
Net cash flow from operating activities		13,373	14,160	24,787	64,070	109,997
Total assets		243,832	208,261	186,751	169,357	594,092
Total liabilities		67,906	32,080	32,647	21,327	22,035
Net assets		175,926	176,181	154,104	148,030	572,057

1. As a consequence of the transfer of the Sustainability Fund from EPA to DEWLP as at 1 July 2015, EPA no longer recognises Municipal and Industrial (M&I) Landfill levies as revenue

Financial performance review

Total income from transactions was $176.7 million, representing a $41.2 million increase (30 per cent) from the previous year. The increase is primarily due to $30.0 million of funding for waste stockpile clean-up works. Additionally, PIW levy income increased, driven by major infrastructure programs continuing across the state.

Total expenses from transactions were $177.1 million, representing a $65.9 million increase (59 per cent) from the previous year. This is due to the establishment of a $30.0 million provision for waste stockpile clean-up works and $5.0 million for regulatory and emergency responses to incidents during the financial year.

Additionally, there was an increase of $23.7 million in costs related to EPA's Transformation program to support the Bringing our Environment Protection Authority into the Modern Era initiative.

Following the passage of the *Environment Protection Amendment Act 2018*, the Authority sourced external services to support the Transformation program to meet the new legislation.

Financial position – balance sheet

Total assets increased by $35.6 million and total liabilities increased by $35.8 million compared with the previous year, both primarily due to recognition of a receivable of $30 million recognised for waste stockpile clean-up works.

Cash flows

The net cash flow from operating activities of $13.4 million is due to the timing of expenditure payments and capital expenditure related to EPA's Digital Transformation program.

The overall cash flow from operating activities decreased by $0.8 million compared to previous year due to increase of costs related to EPA's Transformation program to support the Bringing our Environment Protection Authority into the Modern Era initiative following the passage of the *Environment Protection Act 2018*.

09 Financial performance summary continued

Capital projects/asset investment programs

Nil reports are required as EPA did not complete any projects funded by the State Budget above the total estimated investment threshold of $10 million.

EPA continues to invest in asset programs that align with its strategic goals, including utilisation of the reform asset funding received as part of the Bringing our Environment Protection Authority into the Modern Era initiative.

Subsequent events

The Authority had no material events that occurred after 30 June 2019.

10 Organisational structure and governance arrangements

Chairperson and Governing Board

Chairperson – Ms Cheryl Batagol PSM

Ms Cheryl Batagol PSM was first appointed as EPA Chairperson in September 2009. In December 2017, she was appointed Chairperson of the EPA Governing Board until June 2020 under the EP Act 2017. The role of the Chairperson with the EPA Governing Board is to appoint the CEO, set the standards and the strategic direction for EPA, liaise with stakeholders and monitor the organisation's performance.

Ms Batagol has more than 40 years' experience in the waste management, water and environmental sectors. Ms Batagol brings to the role her prior experience with numerous government bodies including as Chair of Melbourne Water, Board member of City West Water and Southern Rural Water, Chair of EcoRecycle Victoria, Deputy Chair of Sustainability Victoria and a member of the Victorian Catchment Management Council and the Victorian Sustainability Fund Advisory Panel.

Ms Batagol is also the Chair of the Heads of EPAs Australia and New Zealand and Chair of the Cooperative Research Centre for Water Sensitive Cities (CRCWSC).

Governing Board

Effective 1 July 2018, the Governing Board replaced the Interim Advisory Board. The Governing Board is responsible for the governance, strategic direction and oversight of EPA. The EP Act 2017, which came into effect 1 July 2018, established EPA as a statutory authority and legislates the role of the Board, CEO and Chief Environmental Scientist.

As at 1 July 2018, the Governing Board members were:

- Ms Cheryl Batagol PSM – Chairperson
- Greg Tweedly – Deputy Chairperson
- Professor Rebekah Brown
- Monique Conheady
- Graeme Ford
- Professor Joan Ozanne-Smith AO
- Ross Pilling
- Debra Russell[1]

Mr Greg Tweedly

Mr Tweedly is the Governing Board's Deputy Chairperson and has more than 20 years' experience in regulation, governance, risk, audit and finance. As CEO of WorkSafe Victoria for nearly 10 years, Mr Tweedly was responsible for the regulation of workplace safety in Victoria. During his time as CEO, WorkSafe Victoria recorded the safest year on record, reduced premiums in seven out of nine years and oversaw the implementation of the WorkHealth Initiative – a five-year program to offer and deliver health checks for Victorian workers.

Mr Tweedly is currently a non-executive Director of Melbourne Health, Chair of Dorsavi Ltd and Chair of the Personal Injury Foundation. He has a Bachelor of Commerce from Melbourne University, is a qualified Accountant (CPA), a Graduate of the Australian Institute of Company Directors, and an Alumnus of the Stanford Executive Program and Harvard Leadership Program.

Professor Joan Ozanne-Smith AO

Emeritus Professor Joan Ozanne-Smith AO is the Head of Injury Prevention Research at the Department of Forensic Medicine at Monash University. In 2016, she was appointed Officer of the Order of Australia (AO) in the Australia Day Honours List for her distinguished service to public health in the area of accident and injury prevention, to forensic medicine, and to higher education as an academic.

Professor Ozanne-Smith is currently a non-executive director of the Australian China Alumni Association and has previously been a member of the Victorian Civil and Administrative Tribunal (VCAT). Professor Ozanne-Smith has qualifications in medicine, public health and sociology, a research doctorate in injury epidemiology and is a Fellow of the Australasian Faculty of Public Health Medicine. She conducts interdisciplinary research and develops epidemiological data systems in Australia and internationally and has co-edited several World Health Organization global reports.

1. Debra Russell resigned from the Governing Board on 24 June 2019.

10 Organisational structure and governance arrangements continued

Mr Graeme Ford

Mr Ford is the CEO of the Game Management Authority and has more than 20 years' experience advocating for rural and regional communities, having been the CEO of the Victorian Farmers Federation.

For the past 20 years Graeme has engaged with various government regulatory bodies on the design of regulatory regimes affecting the agricultural sector and has held non-executive director roles with the Melbourne International Flower and Garden Show and FarmConnect – a not-for-profit company providing charitable support to the agriculture sector.

Mr Ford has a Master in Business Administration from the University of Ballarat, a Master of Applied Science from the University of Western Sydney and a Graduate Diploma of Rural Resource Management from La Trobe University. He is a graduate of the General Management Program of the Harvard Business School.

Professor Rebekah Brown

Professor Brown is the Senior Vice-Provost and Vice-Provost (Research) at Monash University. In this role she is responsible for leading the university-wide research agenda, contributing to the development and implementation of the research strategy and enhancing the university's research performance, ensuring responsible research practice, integrity and compliance in accordance with the Australian Code for the Responsible Conduct of Research.

Professor Brown is also the Director of the RISE (Revitalising Urban Settlements and their Environments) Program, focused on South East Asia and the Pacific, which is funded by the Wellcome Trust.

Previously, Professor Brown was the Director of Monash Sustainable Development Institute, Monash University, a leading interdisciplinary research and education centre working collaboratively with government, industry and philanthropists to advance the knowledge, policy and practice of sustainable development. She also held roles as the Chief Research Officer at the Cooperative Research Centre for Water Sensitive Cities and was a Professor of Environmental Sociology at Monash University.

Professor Brown holds a Bachelor of Civil Engineering (Honours) from Monash University and a PhD in Environmental Studies from the University of New South Wales.

Mr Ross Pilling

Mr Pilling is a non-executive director of Note Printing Australia, Chair of Swinburne University's Industry Research Advisory Committee and the Victorian Government's Advanced Manufacturing Advisory Council. He is also a member of the Innovation Investment Committee of the Innovative Manufacturing Cooperative Research Centre. Mr Pilling was formerly the Deputy National President of the Australian Industry Group, and a longstanding Board member of the Plastics and Chemicals Industry Association.

His senior executive career with leading multinational companies, BASF and BOC, included several General Manager and Managing Director roles in Asia, Australia and Europe. He brings an international, multicultural perspective to leadership and extensive experience of start-ups, post-merger integrations and business transformations.

Mr Pilling has a Master of Science from Cranfield Institute of Technology and a Bachelor of Engineering (Honours) from the University of Liverpool. He is a Fellow of the Australian Institute of Company Directors and of the Australian Academy of Technology and Engineering. In 2016, he was awarded an Honorary Doctor of Engineering by Swinburne University of Technology.

Ms Monique Conheady

Ms Conheady is a Commissioner at Commercial Passenger Vehicles Victoria, a Board Member of the Victorian Responsible Gambling Foundation and a co-founder and Director of DC Power Co. Previously, she was co-founder and Chief Executive Officer of Flexicar and held senior management roles at Hertz Australia after it purchased Flexicar.

Ms Conheady holds a Bachelor of Civil/Environmental Engineering (Honours) and a Bachelor of Arts (Human Geography) from the University of Melbourne, and is a Graduate of the Australian Institute of Company Directors and a Fellow of the Centre for Sustainability Leadership.

Ms Debra Russell[2]

Ms Russell is a member of the Department of Justice Audit and Risk Committee and of the Surf Coast Shire Audit and Risk Committee and was the independent member of the Essential Services Commission Compliance and Enforcement Committee from 2016 to 2018.

She has a strong regulatory background, having been a senior executive with the Australian Securities and Investments Commission. For the past 17 years, Ms Russell has worked as a legal and regulatory risk consultant, including through PricewaterhouseCoopers, providing legal and regulatory risk services to clients. Her projects have included drafting the Privacy (Credit Reporting) Code registered by the Australian Privacy Commissioner in 2014 and a major role in the Independent Review of the Code of Banking Practice completed in 2017 and in drafting the New Energy Tech Consumer Code currently with the ACCC for approval.

Ms Russell holds a Bachelor of Laws, Master of Laws and Bachelor of Arts (Honours) from Melbourne University, a Graduate Diploma in Education from Monash University and a Graduate Diploma in Applied Finance and Investment (Securities Institute of Australia).

Attendance at Governing Board meetings in 2018–19

There were Governing Board meetings held in August, September, October, November, December 2018 and in February, March, April, May and June 2019. Table 10.1 records members' attendance.

Table 10.1: Governing Board meeting attendance

BOARD MEMBER	MEETINGS ELIGIBLE TO ATTEND	MEETINGS ATTENDED
Ms Cheryl Batagol PSM	10	9
Greg Tweedly	10	9
Professor Joan Ozanne-Smith	10	10
Graeme Ford	10	10
Professor Rebekah Brown	10	9
Ross Pilling	10	9
Monique Conheady	10	9
Debra Russell	10	10

Advisory committees

EPA's Governing Board has two subcommittees: Risk and Audit Committee and Science, Engineering and Health Committee.

Risk and Audit Committee

EPA has a Risk and Audit Committee and internal audit function to meet legislative requirements and support the Chairperson and CEO to fulfil their obligations under the *Financial Management Act 1994* (FM Act). The Risk and Audit Committee has two independent members and reports directly to the EPA Governing Board.

The members of the Risk and Audit Committee as at 30 June 2019 were Mr Rob Hogarth (Independent Chair), Mr Greg Tweedly, Mr Ross Pilling, Mr Tam Vu (independent member).

Ms Debra Russell was a member of the Risk and Audit Committee until her resignation from the Governing Board on 24 June 2019. Following this, Mr Graeme Ford was appointed to be the third Governing Board representative on the committee on 2 July 2019.

The role of the Risk and Audit Committee is to provide independent, risk-based, objective views and advice in its oversight and management of:

- financial reporting
- internal and external audit
- risk management systems and practices
- the compliance and control environment
- EPA's Transformation Program.

Science, Engineering and Health Committee

The Science, Engineering and Health Committee's (SEHC) role is to support the Governing Board in its role of overseeing the implementation of EPA's strategic plans with respect to maintaining and growing its scientific excellence, its connection to impact delivery and EPA's role to protect human health and the environment by reducing the harmful effects of pollution and waste.

The independent members of SEHC as at 30 June 2019 were Dr Angie Bone, Deputy Chief Health Officer (Environment) for Dr Brett Sutton, Chief Health Officer; Professor Peter Breen; Professor Robert Vertessy; Professor Sandra Kentish; Professor Veena Sahajwalla; and Professor John Warner (strategic advisor).

2. Debra Russell resigned from the Governing Board on 24 June 2019.

10 Organisational structure and governance arrangements continued

The Governing Board members of SEHC as at 30 June 2019 were Professor Rebekah Brown (SEHC Chair), Ms Cheryl Batagol PSM (EPA Chairperson) and Professor Joan Ozanne-Smith. The Chief Environmental Scientist has a standing invitation to attend SEHC meetings.

Organisational structure

EPA comprises six divisions, each headed up by an Executive Director, reporting to the CEO.

Each division also comprises directorates, units and teams.

This structure came into effect on 8 October 2018 and is designed to optimise our ability to implement EPA's transformation, strengthen our operating model and support our shift to a more prevention-based approach by:

- establishment of a Transformation division to ensure readiness for EPA's new legislation commencing in 2020, and to support delivery of our organisational strategy
- aligning our regulatory operational functions
- enabling a sharper focus on prosecutions by bringing together our Legal and Major Investigations teams under General Counsel
- bringing EPA's key preventive functions together.

See Figure 10.1 to see EPA's organisational structure.

Executive Leadership Team

Dr Cathy Wilkinson

Chief Executive Officer (BAppSc, MEnvSc, PhD)

Cathy Wilkinson became CEO of EPA on 3 September 2018. She is a senior executive with significant public sector experience leading the development and implementation of major policy and regulatory reforms for the Victorian Government in the planning, water and environment portfolios.

Between 2006 and 2013, she was based in Sweden where she consulted to governments across Europe, completed a PhD at the Stockholm Resilience Centre and led projects with the Arctic Council, Rockefeller Foundation and the African Centre for Cities.

Following her return to Australia in early 2013, Dr Wilkinson worked as an Executive Director with the Victorian Government, first leading major integrated urban water management reform and then regulatory, policy and applied science reforms with EPA.

Mr Tim Eaton

Executive Director Regulatory Standards, Assessments and Permissioning (BSoSc, MEL, GAICD)

Tim Eaton joined EPA in February 2010. The Regulatory Standards, Assessments and Permissioning division:

- administers the Environmental Audit framework
- develops, influences and advocates for policy that achieves the optimum for the environment and community, is based on credible contemporary evidence and is designed via engagement with all stakeholders
- facilitates the protection of the environment and human health in strategic planning decisions and State-significant developments
- prevents harm to the environment and human health through timely, risk-based statutory permissions for sites and activities that pose environmental risks.

This is managed across four units – Major Projects and Planning, Development Assessments, Environmental Audit, and Policy and Regulation.

Dr Andrea Hinwood

Chief Environmental Scientist and Executive Director Applied Science (BSc, MAppSc, PhD)

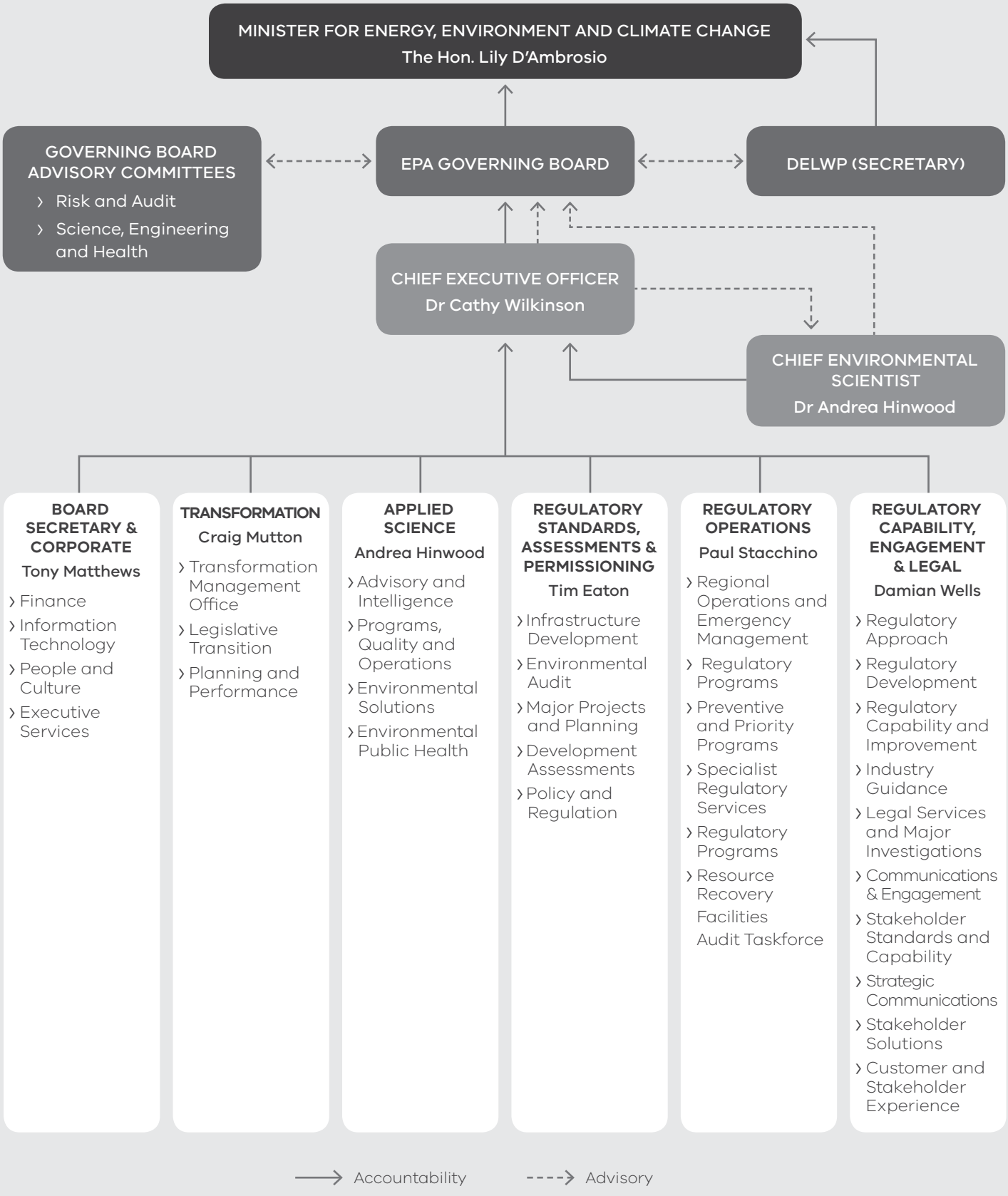
Andrea Hinwood joined EPA in May 2017 as the inaugural Chief Environmental Scientist (CES). The CES provides an authoritative, trusted and expert voice to government, industry and the community on environmental issues by working collaboratively with key stakeholders such as the Chief Health Officer and Emergency Management Commissioner.

The CES is also charged with ensuring EPA is an effective, science-based regulator and protector of the environment and human health. The CES is responsible for ensuring EPA's scientific expertise and advice underpins EPA's key functions and strategic objectives and meets high standards of excellence.

The CES and the Applied Science division:

- works with and provides advice to community and business to prevent pollution
- provides scientific advice and intelligence to inform policy and regulatory decisions, assessments, compliance and enforcement actions

Figure 10.1: EPA's organisational structure effective 8 October 2018



10 Organisational structure and governance arrangements continued

- provides scientific and technical advice on activities that might have pollution and waste impacts
- compiles scientific and environmental data and communicates information on the state of the environment
- responds to pollution incidents, emergency incidents and community concerns
- provides training, equipment and support to field staff to carry out their duties
- partners with others to build our knowledge and scientific capability including through research and development.

This is managed across four units – Advisory and Intelligence, Environmental Public Health, Environmental Solutions, and Program, Quality and Operations.

Mr Tony Matthews

Board Secretary and Executive Director Corporate (BBus, CPA, MBA, GAICD)

Tony Matthews joined EPA in February 2017 as the inaugural Board Secretary.

The Board Secretary and Corporate division:

- sets a strong business foundation and enables the operation of EPA and the delivery of EPA objectives
- supports EPA's Chairperson and Governing Board
- facilitates organisational governance and Board reporting through the Board Secretary
- enables a high-performance culture that values our people and ensures their safety, health, wellbeing and development.
- provides financial, facilities and procurement services and support to the organisation
- oversees risk management for the organisation
- provides support and advice to shape and drive organisational efficiency and change.

This is managed across four directorates – Financial Services, Information Technology, People and Culture, and Executive Services.

Mr Damian Wells[3]

Executive Director Regulatory Capability, Engagement and Legal (BEM (Hons), MBA, GAICD)

Damian Wells joined EPA in March 2015.

The Regulatory Capability, Engagement and Legal division:

- actively drives continuous improvement programs to build our regulatory capability and to deliver on our promise as a modern regulator
- is responsible for delivering key reforms, including the pilot of Officers for the Protection of the Local Environment in councils and EPA's Sanctions Strategy.
- develops new industry guidance to support compliance with environmental obligations and drives state of knowledge
- develops and oversees the implementation of organisation-wide regulatory solutions to tackle environmental problems and effect long-term change
- provides high-quality and timely legal and related policy advice as well as representing EPA in litigation
- supports the organisation to deliver integrated communication and engagement solutions.

This is delivered across three directorates: Regulatory Approach and Capability, Legal Services and Major Investigations, and Communications and Engagement.

Mr Paul Stacchino

Executive Director Regulatory Operations (ADipPublicSafety (Emergency Mgt), GradCertTraining Mgt, MBA, GIFireE, GAICD)

Paul Stacchino joined EPA in 2017. Through the Annual Regulatory Work Plan, the Regulatory Operations division:

- delivers the planning, design and operational priority setting of regulatory activity
- embeds standards, guidelines, measurement and evaluation in EPA's regulatory programs
- builds capability in regulatory practitioners who design, execute, monitor and evaluate compliance programs

3. Damian Wells finished his role as Executive Director Regulatory Capability, Engagement and Legal on 25 July 2019.

- leads EPA emergency management capability before, during and after emergencies including the assessment, triage and delivery of pollution and emergency response
- delivers compliance assessments to specified standards and follow through consistent with EPA's regulatory approach.

This is managed across two directorates – Regional Operations and Emergency Management, and Regulatory Programs.

Mr Craig Mutton

Executive Director Transformation (BComp(CompSci), MPM, MBA)

Craig Mutton joined EPA in December 2018. The Transformation division:

- drives integrated delivery of the major organisation-wide Transformation program as part of the government's response to the Independent Inquiry into EPA
- leads the development and implementation of EPA's organisational strategy, business planning and performance monitoring
- leads the development of environmental standards and influences policy and legislative reform across the environment portfolio
- helps Victorians comply with environmental laws through strategic communications activities
- cultivates relationships that support stakeholders to achieve regulatory and environmental outcomes
- provides customers with accessible, accurate and timely information and pollution reporting services.

This is managed across two directorates – the Transformation Management Office, and Strategy and Legislative Transition.

Occupational health and safety

Policies, systems and processes

EPA's safety vision is a safe and healthy workplace that promotes a safety-first culture and is committed to eliminating work-related injuries and illnesses. The key controls supporting our vision are:

- creating a positive and supportive safety culture
- reducing risk in the workplace by implementing robust risk management
- maintaining an effective safety management system
- enhancing leadership, capability, accountability and influence.

This year saw the launch of our new vision and three-year Health, Safety and Wellbeing Strategy. This was the culmination of extensive consultation and was endorsed by the Executive Leadership Team and the EPA Governing Board. The new Safety Vision and Strategic Plan will, with our leaders' and employees' commitment and participation, enable EPA to deliver on Goal 5 of the EPA Strategic Plan – Staff safety, health, wellbeing and development.

In 2018–19, EPA maintained AS NZS 4801: 2001 certification of its Occupational Health and Safety Management System following the annual audit in October 2018. This audit confirmed that the EPA safety management system is effective and compliant overall with the requirements of the standard.

The year also saw the development of several new initiatives to improve the health and safety of staff including, ICAM (Incident Cause Analysis Mode) investigation training for managers and team leaders, development of numerous key policies and procedures, refinement and enrichment of the health and safety intranet site to improve access to OHS information and the procurement of a new OHS system software to be rolled out in August 2019. The Health Safety and Wellbeing team (HSW) conducted OHS risk register review workshops for all EPA offices.

EPA provided fruit boxes to all offices, a flu vaccination program – which was well-received by employees – and acknowledged RUOK? Day to support the health and wellbeing of staff. A number of the smaller regional offices organised customised wellbeing programs, with the support of the HSW team.

All EPA OHS policies and procedures are consistent with the *Occupational Health and Safety Act 2004*, Occupational Health and Safety Regulations 2017 and the *Workplace Injury Rehabilitation and Compensation Act 2013*. The Victorian Public Service Enterprise Agreement 2016 covers the formal agreement with the CPSU regarding issues and obligations for OHS.

10 Organisational structure and governance arrangements continued

Incident management

EPA had 188 incidents reported; 106 resulted in injury or impact to an individual. Exposure to chemicals, environmental factors, equipment or building-related incidents and psychosocial injuries accounted for 68 per cent of all the incidents. There were two lost time injuries for 2018–19, with one a repetitive sprain injury resulting in lost time, and a WorkCover Claim.

In 2018–19, the total reported incidents related to field work was 56 per cent. EPA employees attending environmental incidents, responding to pollution and emergency reports and entering a wide variety of non-EPA facilities and workplaces represent the most significant identified risk for EPA employees. EPA continued to focus on managing these risks through an annual review of the EPA risk register, refresher training, reviewing and upgrading and promoting the job safety analysis and dynamic risk assessment process, identifying appropriate equipment and supporting the commitment of EPA employees to their safety and safe work practices.

EPA offers employees and their immediate families access to an Employee Assistance Program which provides confidential, professional counselling for personal or work-related issues. In 2018–19, 145 sessions were conducted by EPA's Employee Assistance Program provider with 29 per cent of the issues raised being mental health and workplace stress. Psychological incidents accounted for 29 per cent of all OHS incidents reported in 2018–19.

There was one WorkCover claim for 2018–19.

Performance against OHS management measures

Table 10.2: Performance against OHS management measures

MEASURE	KEY PERFORMANCE INDICATOR	NOTES	2018–19	2017–18	2016–17
Incidents	No. of incidents	1	188	163	91
	Rate per 100 FTE	3	28.54	27.26	18.13
	Injury Rate		3.88	2.63	2.15
	LTI		2	1	4
	LTIFR	4	1.92	0.83	3.867
Claims	No. of standard claims	2,5	1	0	3
	Rate per 100 FTE	3	0.15	0	0.59
	No. of lost time claims		1	0	1
	Rate per 100 FTE	3	0.15	0	0.19
	No. of claims exceeding 13 weeks		0	0	1
	Rate per 100 FTE	3	0	0	0.19
Fatalities	Fatality claims		0	0	0
Claim costs	Average cost per standard claim	2,5	$35,538	$0	$17,428
Return to work	Percentage of claims with Return to Work (RTW) Plan <30 days		100%	n/a	100%
Management commitment	Evidence of OHS policy statement, OHS objectives, regular reporting to senior management of OHS, and OHS plans (signed by CEO or equivalent).		100%	100%	100%

MEASURE	KEY PERFORMANCE INDICATOR	NOTES	2018–19	2017–18	2016–17
Management commitment	Evidence of OHS criteria(s) in purchasing guidelines (including goods, services and personnel).		Completed	Completed	Completed
Consultation and participation	Evidence of agreed structure of designated workgroups (DWGs), health and safety representatives (HSRs), and issue resolution procedures (IPRs)		Completed	Completed	Completed
	Compliance with agreed structure on DWGs, HSRs, and IRPs		Completed	Completed	Completed
	Number of quarterly OHS Committee meetings		4	4	4
Risk management	Percentage of internal audits/ workplace inspections completed as planned		85%	80%	75%
	Percentage of reported incidents investigated		100%	100%	90%
	No. of AS 4801 external audit non-conformances		1	4	2
	Percentage of AS 4801: 2001 external audit non-conformances actioned		100%	100%	100%
	Percentage of issues identified and actioned arising from:				
	internal audits		100 %	100 %	100 %
	HSR provisional improvement notices		n/a	n/a	n/a
	WorkSafe Victoria notices		n/a	n/a	100%
Training	Percentage of managers and staff who have received OHS training:				
	induction		100%	100%	90%
	management training		55%	80%	15%
	contractors, temps and visitors		75%	80%	75%
	Percentage of HSRs trained:				
	acceptance of role		80%	75%	80%
	retraining (refresher)		30%	30%	25%
	reporting of incidents and injuries		100%	50%	10%

Notes:

1. Incident data sourced from EPA's internal system, EPASS, as at 30 June 2019. The increase in incident/hazard reports over the last 3 years is primarily due to an increase in the number of employees and a focus on encouraging staff to report near misses.
2. Data sourced from the Victorian WorkCover Authority as at 30 June 2019.
3. Based on a monthly average FTE of 658.6 for 2018–19.
4. Rolling 12-month average.
5. There was one standard claim (and consequently an increase in average cost per claim) for 2018/19. The total potential claim costs for 2018/19 is $114,141 (includes the actual payment of $35,538 and WorkSafe Victoria's estimate of potential outstanding claim costs). The average of less than one standard claim for the past three years, during a time of significant increase in the number of employees, reflects the success of EPA's early injury intervention strategy.

10 Organisational structure and governance arrangements continued

Table 10.3: EPA premium performance rate

	NOTES	2018–19	2017–18	2016–17
Performance rate	1	0.3878%	0.3477%	1.0663%

1. Data sourced from the Victorian WorkCover Authority as at 30 June 2019. Data has been revised to accurately reflect premium performance for the year.

Employment and conduct principles

EPA is committed to applying best practice principles when appointing and retaining our people. Processes reflect and conform to s. 8 of the *Public Administration Act 2004* ensuring decisions are based on merit, fairness, equity and freedom from discrimination.

11 Workforce data

Values and employment principles

EPA's organisational values are *Excellence*, *Partnership* and *Accountability* and work in conjunction with the Victorian Public Sector Values and Code of Conduct.

EPA continues to review policies that underpin our workforce strategies. Policies focus on alignment with the public sector employment standards under the *Public Administration Act 2004*, managing and valuing diversity and creating a safe and healthy workplace for our employees.

EPA's Organisational Strategy, *Our environment, Our health*, contains endorsed values that align with the VPSC employment standards that will be promoted and internalised within the organisation.

All EPA employees are covered by the Victorian Public Service Enterprise Agreement 2016, except for executives who hold individual employment contracts under the *Public Administration Act 2004*. Employees have been correctly classified in workforce data collections.

Comparative workforce data

FTE in the following tables reflect employment levels at the last full pay period in June of the current and corresponding previous reporting years. FTE excludes agency staff, contractors and staff on any form of leave without pay. The increase in FTE relates primarily to EPA's transformation program.

Table 11.1: Full-time equivalent (FTE) staffing trends from 2014 to 2019

YEAR	2018–19	2017–18	2016–17	2015–16	2014–15	2013–14
FTE	676	634	461	388	341	312

Table 11.2: Summary of employment in June of 2018 and 2019

	ONGOING EMPLOYEES				FIXED-TERM AND CASUAL EMPLOYEES
	EMPLOYEES (HEADCOUNT)	FULL-TIME (HEADCOUNT)	PART-TIME (HEADCOUNT)	FTE	FTE
June 2019	556	430	126	518.5	157.29
June 2018	491	389	102	458.75	175.54

11 Workforce data continued

Table 11.3: Details of employment levels in June 2018 and June 2019

	2018–19							2017–18						
	ALL EMPLOYEES		ONGOING			FIXED-TERM & CASUAL EMPLOYEES		ALL EMPLOYEES		ONGOING			FIXED-TERM & CASUAL EMPLOYEES	
	Number (headcount)	FTE	Full-time (headcount)	Part-time (headcount)	FTE	Number (headcount)	FTE	Number (headcount)	FTE	Full-time (headcount)	Part-time (headcount)	FTE	Number (headcount)	FTE
GENDER														
Men	317	308.4	229	27	249.05	61	59.35	283	273.89	192	19	205.29	72	68.6
Women	402	365.39	201	99	269.45	102	95.94	391	359.4	197	83	253.46	111	105.94
Self-described	2	2	0	0	0	2	2	1	1	0	0	0	1	1
AGE														
15–24	9	8.2	4	0	4	5	4.2	17	17	12	0	12	5	5
25–34	193	184.2	125	20	137.4	48	46.8	183	174.57	103	12	110.14	68	64.43
35–44	276	254.31	143	66	190.32	67	63.99	259	240.46	135	54	173.19	70	67.27
45–54	164	153.83	101	30	122.33	33	31.51	137	128.11	86	26	104.11	25	24
55–64	68	64.65	49	9	55.65	10	9	73	68.15	47	10	53.3	16	14.85
65+	11	10.6	8	1	8.8	2	1.8	6	6	6	0	6	0	0
VPS 1–6 GRADES														
VPS Grade 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VPS Grade 2	6	5.2	2	0	2	4	3.2	15	14.8	1	0	1	14	13.8
VPS Grade 3	148	138.01	93	22	107.46	33	30.55	136	128.82	87	11	93.57	38	35.25
VPS Grade 4	227	214.83	136	34	158.73	57	56.1	222	208.44	123	29	142.11	70	66.34
VPS Grade 5	231	214.01	127	50	162.67	54	51.34	199	185.98	108	42	137.73	49	48.26
VPS Grade 6	86	81.54	51	18	65.44	17	16.1	86	80.04	55	18	68.14	13	11.9
SENIOR EMPLOYEES														
STS	4	3.2	2	2	3.2	0	0	4	3.2	2	2	3.2	0	0
PS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sra	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Executives	19	19	19	0	19	0	0	13	13	13	0	13	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total employees	**721**	**675.79**	**430**	**126**	**518.5**	**165**	**157.29**	**675**	**634.29**	**389**	**102**	**458.75**	**184**	**175.54**

Diversity and Inclusion Strategy

EPA is committed to building a supportive and inclusive culture where everyone is valued for their unique qualities, ideas and perspectives. During 2018–19, we focused our efforts on delivering the action plans associated with our three-year Diversity and Inclusion Strategy. The strategy sets out clear expectations and actions across five key areas:

- building inclusive leadership accountability and driving engagement for diversity and inclusion
- developing inclusive capability and reducing unconscious bias in decision making
- improving the representation of women in leadership and technical roles
- supporting a diverse workforce to better reflect the Victorian community, including championing cultural and linguistic diversity, LGBTIQ+, Aboriginal and Torres Strait Islander people, disability and life stage inclusion
- promoting and encouraging flexible working practices.

Compliance with the *Disability Act 2006*

The *Disability Act 2006* reaffirms and strengthens the rights of people with a disability.

In 2018–19, EPA delivered actions associated with our Disability Inclusion Action Plan to remove barriers from gaining and maintaining employment and preventing full engagement with EPA's services and facilities.

The action plan is consistent with the government's framework for enabling people with a disability to participate and contribute to the social, economic and civic life of their community *(Absolutely everyone: state disability plan 2017–2020)*.

Milestones for the year included:

- conducting a facilities review of design for proposed EPA worksite locations to ensure they are accessible
- review and improve recruitment demographics to consider barriers for those with disabilities in applying for EPA roles
- training for EPA employees in Mental Health First Aid together with implementation of a peer support network to support people with mental illness
- improved understanding and capability development of EPA's senior leaders for inclusive leadership.

Executive officer data

An executive officer (EO) is defined as a person employed as a public service body head or other executive under Part 3, Division 5 of the *Public Administration Act 2004*. All figures in the following tables reflect employment levels at the last full pay period in June of the current and corresponding previous reporting year.

The increase in 2018–19 relates to additional executive level positions to support EPA's organisational requirements for the 'Bringing our Environment Protection Authority into the modern era' initiative.

Four of the new executive level positions are leading EPA's transformation program.

11 Workforce data continued

Table 11.4: Total revenue package, by $20,000 bands, for executives and other senior non-executive staff

INCOME BAND (SALARY)	EXECUTIVES	STS	PS	SMA	SRA	OTHER
< $160,000						
$160,000–-$179,999	5					
$180,000–$199,000	1	2				
$200,000–$219,999	6	2				
$220,000–$239,999	1					
$240,000–$259,999	2					
$260,000–$279,999	3					
$280,000–$299,999						
$300,000–$319,999						
$320,000–$339,999						
$340,000–$359,999	1					
$360,000–$379,999						
$380,000–$399,999						
$400,000–$419,999						
Total	**19[1]**	**4**	**0**	**0**	**0**	**0**

Table 11.5: Total number of EOs broken down into gender

	ALL		MEN		WOMEN		SELF-DESCRIBED		VACANCIES
CLASSIFICATION	NO.	VAR	NO.	VAR	NO.	VAR	NO.	VAR	NO.
EO-1	1	0	0	-1	1	1	0	0	0
EO-2	7	1	6	2	1	-1	0	0	0
EO-3	11	5	6	2	5	3	0	0	0
Total	**19[1]**	**6**	**12**	**3**	**7**	**3**	**0**	**0**	**0**

Table 11.6: Reconciliation of executive numbers

		2019	2018
	Executives with remuneration more than $100,000	19	14
Add	Vacancies (See Table 11.5)	0	0
	Executives with total remuneration below $100,000	0	0
	Accountable Officer (CEO)	1	1
Less	Separations	-1	-2
	Total executive numbers at 30 June	**19[1]**	**13**

Notes:

1. Includes 18 executives plus Accountable Officer (CEO).

12 Other disclosures

Local Jobs First: Victorian Industry Participation Policy Act 2003

The *Local Jobs First: Victorian Industry Participation Policy Act 2003* introduced in August 2018 brings together the Victorian Industry Participation Policy (VIPP) and Major Project Skills Guarantee (MPSG) policy which were previously administered separately. Departments and other public sector bodies are required to apply the Local Jobs First policy in all projects valued at $3 million (excluding GST) or more in metropolitan Melbourne for statewide projects, or $1 million (excluding GST) or more for projects in regional Victoria.

The MPSG guidelines and VIPP guidelines will continue to apply to MPSG-applicable and VIPP-applicable projects respectively where contracts have been entered prior to 15 August 2018.

During 2018–19, EPA commenced one Local Jobs First VIPP or Local Industry Development Plan applicable procurement totalling $24 million (excluding GST).

The outcomes expected from the implementation of the Local Jobs First policy to this project where information was provided are as follows:

- 100 per cent local content commitment was made.
- A total of 40 jobs (annualised employee equivalent [AEE]) were committed, including the creation of nine new jobs and the retention of 31 existing jobs (AEE).
- A total of seven positions for trainees were committed, including the creation of two new traineeships and the retention of five existing traineeships.

Government advertising expenditure

There were no advertising campaigns with a media spend of $100,000 or greater in 2018–19.

Consultancy expenditure

Consultancies valued at $10,000 or greater

In 2018–19, there were 44 consultancies where the total fees payable to the consultants were $10,000 or greater. The total expenditure incurred during 2018–19 in relation to these consultancies was $26,523,433 (excluding GST) including externally funded projects. Details of individual consultancies are outlined above.

Many of the consultancies have been required to support EPA's transformation activities and our implementation of the government's response to the independent Inquiry into EPA.

Table 12.1: Details of consultancies (valued at $10,000 or greater)

CONSULTANTS	PURPOSE OF CONSULTANCY	ORDER DATE	DATE PAID	TOTAL APPROVED PROJECT FEE (EXCL. GST)	EXPENDITURE 2018–19 (EXCL. GST)	FUTURE EXPENDITURE (EXCL. GST)
Alluvium Consulting Australia Pty Ltd	Environmental Monitoring Framework	24/10/2018	04/04/2019	27,210	27,210	–
Beca Pty Ltd	Information map for Industry Guidance Unit	30/06/2018	26/07/2018	33,636	26,364	–
CDM Smith Australia Pty Ltd	Human Health Review	02/05/2019	23/05/2019	31,072	31,072	–
Cevo Pty Ltd Vic	EPA Waste Tracker Evaluation	25/06/2018	26/07/2018	13,392	13,392	–

12 Other disclosures continued

Table 12.1: Details of consultancies (valued at $10,000 or greater) continued

CONSULTANTS	PURPOSE OF CONSULTANCY	ORDER DATE	DATE PAID	TOTAL APPROVED PROJECT FEE (EXCL. GST)	EXPENDITURE 2018–19 (EXCL. GST)	FUTURE EXPENDITURE (EXCL. GST)
CRC For Water Sensitive Cities	Stormwater science review for water sensitive cities	14/08/2019	22/11/2018	56,785	56,785	–
Data Agility Pty Ltd	EPA Environmental Health Tracking Network	08/10/2018	04/01/2019	109,091	109,091	–
Datalink Internet System Pty Ltd	West Footscray/ Tottenham Fire Coroner's Report	13/02/2019	14/03/2019	12,375	12,375	–
Datalink Internet System Pty Ltd	EPA Crisis Works Field Observation module	14/06/2019	11/07/2019	15,000	15,000	–
Deloitte Consulting Pty Limited	IT Transformation Partnership	18/10/2018	28/06/2019	24,006,032	18,348,633	5,657,398
Deloitte Touche Tohmatsu	EPA Regulatory Impact Statement	09/10/2018	13/06/2019	640,542	612,912	27,630
Eleanor Kennett Smith	Review and rewrite science sampling and evidence documentation	29/11/2018	06/12/2018	27,273	15,200	12,073
Equilibrium Omg Pty Ltd	Assessing the risk of harms associated with the use of waste materials report	30/05/2019	13/06/2019	16,500	16,500	–
Ernst & Young Pty Ltd	Greenhouse gas (GHG) inventory and management plan	13/06/2018	26/09/2018	78,423	21,169	57,254
First Person Cosulting P/L	Officers for the Protection of the Local Environment (OPLE) pilot evaluation	03/01/2019	18/07/2019	44,591	44,591	–
GHD Pty Ltd	Identification of gaps in agricultural guidance	06/06/2018	03/08/2018	37,644	35,761	1,883
GHD Pty Ltd	Modelling of total concentrations of chemical compounds through an engineered landfill publication	29/06/2018	11/10/2019	27,520	27,451	–
Graeme Ross & Associates Pty Ltd	Environment air quality impact assessment review	09/05/2019	13/06/2019	29,160	29,160	–

Table 12.1: Details of consultancies (valued at $10,000 or greater) continued

CONSULTANTS	PURPOSE OF CONSULTANCY	ORDER DATE	DATE PAID	TOTAL APPROVED PROJECT FEE (EXCL. GST)	EXPENDITURE 2018–19 (EXCL. GST)	FUTURE EXPENDITURE (EXCL. GST)
Grosvenor Performance Group	Framework development of combustible recyclable waste material guideline	15/05/2019	18/07/2019	128,241	98,428	29,813
HR Squad	Transformation capability assessment	24/03/2019	12/04/2019	13,636	10,455	–
HR Squad	Change management project	14/05/2019	11/07/2019	27,273	27,273	–
Iemedia Pty Ltd	Development of web-based and mobile app implementation roadmap and budget recommendation	31/10/2018	29/11/2018	17,603	17,603	–
Inside Infrastructure	Guidelines for Sewerage Infrastructure Management	08/05/2018	19/07/2018	78,054	8,753	–
John Robinson Consulting Services Pty Ltd	Development of horizon scanning methodology, delivery of report and training	12/02/2019	21/03/2019	17,864	17,864	–
Monash University	Guidance to support the use of new indicators and objectives for recreational water study	29/11/2018	20/12/2018	14,800	14,800	–
Nolan Consulting Pty Ltd	Review of the Department of Environment, Land, Water and Planning's Long- Term Water Resources Audit	18/09/2018	04/01/2019	134,364	18,955	115,409
Oxygen Business Solutions Pty Ltd	Development of electronic form for vehicle permits	25/10/2019	13/06/2019	103,764	103,764	–
Pacific Environment Operations Pty Ltd	Ambient Air quality National Environment Protection Measure consultancy services	29/08/2016	19/07/2019	282,646	68,387	–
Point Advisory	Officers for the Protection of the Local Environment cost–benefit analysis	27/09/2018	20/06/2019	27,090	27,090	–

12 Other disclosures continued

Table 12.1: Details of consultancies (valued at $10,000 or greater) continued

CONSULTANTS	PURPOSE OF CONSULTANCY	ORDER DATE	DATE PAID	TOTAL APPROVED PROJECT FEE (EXCL. GST)	EXPENDITURE 2018–19 (EXCL. GST)	FUTURE EXPENDITURE (EXCL. GST)
Price Waterhouse Coopers	Business Continuity Framework refresh	08/06/2018	06/07/2018	27,273	27,273	–
Price Waterhouse Coopers	Development of accommodation and workplace strategy	26/03/2018	23/08/2018	85,000	10,000	–
Price Waterhouse Coopers	Business Transformation Partnership	18/04/2018	21/06/2019	7,127,381	6,280,403	–
Prim Consultancy	Business continuity report	08/06/2018	19/07/2018	10,800	10,800	–
Prim Consultancy	Post-incident West Footscray/ Tottenham Fire Report	13/09/2018	11/10/2018	25,200	25,200	–
Quantum Market Research	Waste compliance research	15/05/2018	26/07/2018	36,259	30,500	–
Quantum Market Research	Evaluation of the Yarra and Bay website	15/05/2019	13/06/2019	27,272	13,636	13,636
Regulatory Impact Solutions Pty Ltd	Expert analysis of the costs and benefits of potential policy options for improving EPA's policies for noise (Noise SEPPs)	30/05/2018	09/08/2018	68,782	48,147	–
Risklogic Pty Ltd	Incident management system support manuals	26/03/2019	28/06/2019	26,690	26,690	–
RM Consulting Group P/L	Stormwater cost–benefit analysis	24/08/2018	28/03/2019	86,745	81,245	–
RMIT University	Environmental Justice Review	14/06/2019	11/07/2019	30,313	21,219	9,094
South Australian Health & Medical Research	Per- and poly-fluoroalkyl (PFAS) substance modelling	25/06/2019	25/07/2019	22,725	22,725	–
Toxconsult Pty Ltd	PFAS substance clearance and distribution research	18/12/2018	30/05/2019	14,948	14,948	–

Table 12.1: Details of consultancies (valued at $10,000 or greater) continued

CONSULTANTS	PURPOSE OF CONSULTANCY	ORDER DATE	DATE PAID	TOTAL APPROVED PROJECT FEE (EXCL. GST)	EXPENDITURE 2018–19 (EXCL. GST)	FUTURE EXPENDITURE (EXCL. GST)
Votar Partners Pty Ltd	Development of an Electronic Documents and Records Management System	26/07/2018	23/05/2019	17,000	10,838	–
Water Research Australia Limited	Antimicrobial resistance agricultural origin project	17/06/2019	11/07/2019	27,273	27,273	–
Workwell Consulting Pty Ltd	Provision of facilitation and advisory services for EPA's Board and Executive	13/03/2019	21/03/2019	16,500	16,500	–

Consultancies under $10,000

In 2018–19, there were 21 consultancies engaged during the year where the total fee payable to the individual consultancies was less than $10,000. The total expenditure incurred during 2018–19 in relation to these consultancies was $129,853 excluding GST.

Disclosure of major contracts

During 2018–19, EPA entered into one contract over $10 million, with Deloitte Consulting Pty Ltd. relating to EPA's Information Technology transformation activities relating to the Bringing our Environment Protection Authority into the Modern Era initiative.

Information and communication technology expenditure

For the 2018–19 reporting period, the Authority had a total ICT expenditure of $34.7 million, with the details shown below.

Table 12.2: Disclosure of ICT expenditure

			($ '000)
BUSINESS AS USUAL (BAU) ICT EXPENDITURE	NON BUSINESS AS USUAL (NON BAU) ICT EXPENDITURE		
Total	Total = operational expenditure and capital expenditure	Operational expenditure	Capital expenditure
$13,654	$21,007	$6,715	$14,292

ICT expenditure refers to the Authority's costs in providing business enabling ICT services. It comprises business as usual (BAU) ICT expenditure and non business as usual (non-BAU) ICT expenditure. BAU ICT expenditure is ICT expenditure that primarily relates to ongoing activities to operate and maintain the current ICT capability. Non-BAU ICT expenditure relates to the delivery of ICT projects primarily associated with the Bringing our Environment Protection Authority into the Modern Era initiative.

The ICT expenditure includes work in progress amounts of $13.4 million for non-BAU activities associated with the Authority's digital transformation program.

Competitive Neutrality Policy Victoria

Under the National Competition Policy, the guiding legislative principle is that legislation, including future legislative proposals, should not restrict competition unless it can be demonstrated that:

- the benefits of the restriction to the community as a whole outweigh the costs
- the objectives of the legislation can only be achieved by restricting competition.

EPA continues to comply with the requirements of the Competitive Neutrality Policy Victoria.

Competitive neutrality requires government businesses to ensure where services compete, or potentially compete with the private sector, that any advantages arising solely from their ownership be recovered if they are not in the public interest.

Freedom of Information

The *Freedom of Information Act 1982* allows the public a right of access to documents held by the Authority. The purpose of the Act is to extend as far as possible the right of the community to access information held by government departments, local councils, Ministers and other bodies subject to the Act.

An applicant has a right to apply for access to documents held by the Authority. This comprises documents both created by the Authority or supplied to the Authority by an external organisation or individual, and may also include maps, films, microfiche, photographs, computer printouts, computer discs, tape recordings and videotapes. Information about the type of material produced by the Authority is available on its website under its Part II Information Statement.

The Act allows the Authority to refuse access, either fully or partially, to certain documents or information. Examples of documents that may not be accessed include: cabinet documents, some internal working documents, law enforcement documents, documents covered by legal professional privilege, such as legal advice, personal information about other people, and information provided to the Authority in confidence.

From 1 September 2017, the Act was amended to reduce the Freedom of Information processing time for requests received from 45 to 30 days.

However, when external consultation is required the processing time automatically reverts to 45 days. Processing time may also be extended by periods of 30 days, in consultation with the applicant. With the applicant's agreement this may occur any number of times.

If an applicant is not satisfied by a decision made by EPA, under s. 49A of the Act, they have the right to seek a review by the Office of the Victorian Information Commissioner (OVIC) within 28 days of receiving a decision letter.

Making a request

FOI requests can be lodged by emailing the Freedom of Information Officer at foi@epa.vic.gov.au. From 1 July 2019 an application fee of $29.60 applies. Access charges may also be payable if the document pool is large, and the search for material, time consuming.

Access to documents can also be obtained through a written request to the Authority's Freedom of Information Officer, as detailed in s. 17 of the *Freedom of Information Act 1982*.

When making an FOI request, applicants should ensure requests are in writing, and clearly identify what types of material/documents are being sought.

Requests for documents in the possession of the Environment Protection Authority should be addressed to:

Freedom of Information Officer
Environment Protection Authority
181 William Street
Melbourne 3000

FOI statistics/timeliness

During 2018–19, the Authority received 73 applications. Of these requests, one was from a Member of Parliament, four from the media, one from a local council and the remainder from the general public.

The Authority made 46 FOI decisions during the 12 months ended 30 June 2019.

Twenty-one decisions were made within the statutory 30-day time period; eight decisions within an extended statutory 31–45-day time period; and 17 decisions within 46–90 days (with nine of those being between 46 and 50 days). No decisions were made in a period exceeding 90 days.

The average time taken to finalise requests in 2018–19 was 31 days.

During 2018–19, two requests were subject to a complaint/internal review by OVIC with two progressing to VCAT.

Further information

Further information regarding the operation and scope of FOI can be obtained from the Act, regulations made under the Act, and at www.foi.vic.gov.au.

Compliance with the *Building Act 1993*

EPA does not own or control buildings. However, it complies with the building and maintenance provision of the *Building Act 1993* to the extent that it is responsible as a tenant in leased premises.

Compliance with the *Protected Disclosure Act 2012*

The *Protected Disclosure Act 2012* encourages and assists people in making disclosures of improper conduct by public officers and public bodies. The Act provides protection to people who make disclosures in accordance with the Act and establishes a system for the matters disclosed to be investigated and for rectifying action to be taken.

EPA does not tolerate improper conduct by employees, or the taking of reprisals against those who come forward to disclose such conduct. We are committed to ensuring transparency and accountability in our administrative and management practices and support the making of disclosures that reveal corrupt conduct, conduct involving a substantial mismanagement of public resources, or conduct involving a substantial risk to public health and safety or the environment.

EPA will take all reasonable steps to protect people who make such disclosures from any detrimental action in reprisal for making the disclosure. We will also afford natural justice to the person who is the subject of the disclosure to the extent it is legally possible.

Reporting procedures

Disclosures of improper conduct or detrimental action by EPA or any of our employees and/or officers may be made to:

Protected Disclosures Coordinator
EPA Victoria PO Box 4395
Melbourne Victoria 3001

Telephone: 03 9695 2573
Email: protected.disclosure@epa.vic.gov.au

Alternatively, disclosures of improper conduct or detrimental action by EPA or any of its employees and/or officers may also be made directly to the Independent Broad-based Anti-corruption Commission:

Independent Broad-based Anti-corruption Commission (IBAC) Victoria

Level 1
North Tower
459 Collins Street
Melbourne VIC 3000.

Mail: IBAC, GPO Box 24234, Melbourne VIC 3000

Phone: 1300 735 135
Website: www.ibac.vic.gov.au

Email: (see website above for the secure email disclosure process, which also provides for anonymous disclosures.)

Further information

The Protected Disclosure Policy and Procedures, which outline the system for reporting disclosures of improper conduct or detrimental action by EPA or any of our employees and/or officers, are available on EPA's website.

Table 12.3: Disclosures under the Protected Disclosure Act 2012

	2018–19	2017–18
The number of disclosures made by an individual to EPA and notified to the Independent Broad-based Anti-corruption Commission	0	0
Assessable disclosures	0	0

Office-based environmental impacts

EPA's Environment Management System (EMS) has been established to reduce the Authority's impact on the environment. The system is supported by a staff-run working group, Green Stars, which organises initiatives that promote environmental awareness. In 2018–19, some of the initiatives promoted by the group were War on Waste screenings with discussions, and Ride to Work Day.

EPA's greenhouse gas inventory has been prepared using the National Greenhouse Accounts (NGA) Factors updated by the Commonwealth Government's Department of Environment in July 2018 and management-derived methods where appropriate emissions calculation methods and factors were not available in the NGA Factors. A detailed description of the methodologies and conversion factors applied can be found in EPA's Greenhouse Gas Inventory Management Plan 2018–19.

The inventory covers data from all EPA offices, air monitoring stations, small monitoring sites and staff input. A summary of the number of offices, air monitoring stations, small monitoring stations and staff as well as office floor area is presented in Table 12.4. Since the last financial year, there has been an increase in FTE employees, primarily due to EPA's Transformation program. For more information on the Transformation, refer to 'Transforming environment protection for a better Victoria'. Additionally, 11 new small monitoring stations were added to EPA's asset portfolio.

Table 12.4: Greenhouse gas inventory key inputs

INDICATOR	2018–19	2017–18	2016–17
Total full-time equivalent employees (FTEs)	676	634	461
Total office area (m^2)	11,717	11,717	10,793
Number of offices	8	8	7
Number of air monitoring stations[1]	17	17	15
Small monitoring sites[2]	13	2	–

Notes:

1. In 2017–18 and 2016–17, EPA reported all monitoring sites collectively. In 2018–19, EPA has disaggregated these sites into air monitoring stations and small monitoring stations to improve accuracy of reporting.
2. Small monitoring sites include small footprint sites (portable units equal to or less than 10 square metres in area), sensor sites and camera sites.

Energy

Electricity consumption includes a portion of Green Power, which represents electricity consumed from renewable energy sources. Table 12.5 presents EPA's energy consumption performance for the 2018–19, 2017–18 and 2016–17 financial years. Data for electricity and natural gas consumption was obtained from invoices provided by EPA's energy retailers. Where data was not available, consumption was estimated using daily consumption rates for comparable information that was available.

EPA continues to encourage staff to maximise energy-saving potential in EPA offices and with equipment. This includes turning off computers at the power point and the use of energy-efficient office heating, cooling and lighting, where possible. These initiatives have led to the high energy performance of EPA's head office with a NABERS energy rating of 5.5 stars for the base building[4] in 2018–19, an increase from a rating of 5 in 2017–18.

EPA's energy reduction initiatives are reflected in decreases in total energy use, as well as a decrease in energy per FTE, per office area and associated emissions. These decreases have also been partly driven by a decrease in natural gas use, which is in turn due to a switch from cogeneration to hot-water boiler technology to produce high temperature hot water for EPA's CSL Macleod site.

4. Base building refers to communal areas such as elevators.

Table 12.5: Energy use

INDICATOR	2018–19	2017–18	2016–17
E.1 Total energy usage segmented by primary source (MJ)	21,272,138	24,162,511	19,452,822
Electricity (MJ) – excluding Green Power	5,813,250	5,991,549	3,939,519
Natural gas (MJ)	15,201,430	18,002,330	15,338,030
Green Power (MJ)	57,458	168,632	175,274
E.2 Greenhouse gas emissions associated with energy use, segmented by primary source and offsets (tCO2e)	2,732	2,962	2,152
Electricity (tCO2e) – excluding Green Power	1,889	1,964	1,302
Natural gas (tCO2e)	843	998	850
E.3 Percentage of electricity purchased as green power	4.43%	2.81%	4.45%
E.4 Units of energy used per FTE (MJ/FTE)	31,468	38,094	42,197
E.5 Units of energy used per unit of office area (MJ/m2)	1,815	2,062	1,802

Energy targets

EPA's Sustainability Plan outlines targets for 2018–19. Targets include a target for energy intensity of electricity use expressed in mega-joules per square-metre of floor area (MJ/m^2). Table 12.6 presents EPA's performance against its energy intensity target showing that the target was met.

Table 12.6: Current performance against Sustainability Plan targets for energy use

MEASURE	2018–19 TARGET	2018–19 RESULT
Energy use (electricity) per m^2 per year	550 MJ	496 MJ

Waste and recycling

EPA's primary source of waste was from office-based staff. The waste generated by EPA is separated into landfill, recycling (including paper, cardboard, e-waste and co-mingled) and compost (organics recycling). Table 12.7 presents EPA's waste and recycling performance for the 2018–19, 2017–18 and 2016–17 financial years. Data for waste and recycling was obtained from regular waste audits conducted by the EPA.

EPA initiatives to reduce waste focused on ensuring good waste management behaviour by its staff. This included internal signage and communications to encourage staff to avoid generating waste where possible and, where not possible, to increase waste diversion to recycling and reduce the amount of waste sent to landfill.

EPA's total waste and waste per FTE decreased slightly in 2018–19. This was driven by a large reduction in paper and card. The large reduction in paper and card is partly explained by a reduction in paper use as discussed below in the next section of this report. It is also partly explained by a lower recycling diversion rate, as the paper and card line item represents recycled paper and card, while the landfill line item includes non-recycled paper and card. This lower recycling diversion rate also explains the overall increase in emissions from waste disposal.

12 Other disclosures continued

Table 12.7: Waste and Recycling

INDICATOR	2018–19	2017–18	2016–17
Ws 1.Total units of waste disposed of by destination (kg/yr)	23,194	24,108	23,622
Landfill (kg)[1]	5,646	5,432	3,710
Comingled recycling (kg)	6,693	6,964	8,643
E-waste & other recycling (kg)	352	389	487
Paper and card (kg)	805	2,158	2,478
Secure documents (kg)[2]	2,708	2,463	2,175
Organics (kg)	6,990	6,703	6,128
Ws 2. Units of waste disposed of per FTE by destinations (kg/FTE)	34.31	38.01	51.24
Landfill (kg)	8.35	8.56	8.05
Comingled recycling (kg)	9.90	10.98	18.75
E-waste & other recycling (kg)	0.52	0.61	1.06
Paper and card (kg)	1.19	3.40	5.38
Secure documents (kg)	4.01	3.88	4.72
Organics (kg)	10.34	10.57	13.29
Ws 3 .Recycling rate (percentage of total waste)[3]	76%	77%	84%
Ws 4. Greenhouse gas emissions associated with waste disposal (tCO2e)	7.92	7.08	4.79

Notes:

1. Waste to landfill includes cardboard, compostable material, non-recyclable material, paper, paper towels and contamination in recycling.
2. In 2017–18 and 2016–17, an estimation method was used to calculate the secure documents while paper and card data was sourced from EPA's waste audit reports. EPA has since identified secure documents could be directly sourced from its 2017–18 and 2016–17 waste audits as part of its paper and card data. This has led to a retrospective adjustment for waste data across these financial years.
3. Recycled waste includes comingled recycling, e-waste and other recycling, paper and card, secure documents and organics.

Waste and recycling targets

EPA's waste target for 2018–19, as outlined in the Sustainability Plan, is a waste intensity target expressed as the quantity of waste generated per full-time equivalent (FTE) employee. Table 12.8 presents EPA's performance against its waste intensity target showing that the target was met.

Table 12.8: Current performance against Sustainability Plan targets for waste

MEASURE	2018–19 TARGET	2018–19 RESULT
Waste generated per FTE per year (kg)	60 kg	34 kg

Paper

EPA uses paper primarily for office printing. Table 12.9 shows EPA's paper consumption performance for the 2018–19, 2017–18 and 2016–17 financial years. Data for paper use was obtained from EPA's expenditure report provided by its office paper supplier.

EPA has several initiatives in place to reduce paper consumption. 'Follow-me printing' requires staff to confirm print jobs with their identification cards prior to the execution of the print job and aims to improve both printing management and security. All of EPA's printers are environmentally efficient models with print reporting and management software installed for improved information on usage and cost allocation by business unit. EPA provided all staff members with Microsoft Surface tablets, in an effort to encourage digital, rather than paper-based, consumption of information.

Paper use has decreased from the year 2017–18 to 2018–19 and can be attributed to EPA's targeted initiatives to reduce paper consumption. This is also reflected in a decrease in A4 equivalent reams used per FTE.

Table 12.9: Paper use

INDICATOR	2018–19	2017–18	2016–17
P1. Total units of copy paper used (reams)	3,041	3,093	2,866
P2. Units of A4 equivalent copy paper used per FTE (reams/FTE)	4.5	4.9	6.2
P3. 75–100 per cent recycled content	100%	99.13%	99.44%
P3. 50–74 per cent recycled content	0.00%	0.00%	0.00%
P3. Percentage of 0–49 per cent recycled content	0.00%	0.87%	0.56%

Paper-use targets

EPA's paper consumption target for 2018–19, as outlined in the Sustainability Plan is a paper consumption intensity target expressed as the number of reams of paper consumed per full-time equivalent employee. Table 12.10 presents EPA's performance against its paper consumption intensity target showing that the target was met.

Table 12.10: Current performance against Sustainability Plan targets for paper

MEASURE	2018–19 TARGET	2018–19 RESULT
Reams of A4-equivalent paper used per FTE per year	5	4.5

Water

EPA's water use includes water consumed across all eight office facilities. Table 12.11 presents EPA's water use performance for the 2018–19, 2017–18, and 2016–17 financial years. The data is based on water meter readings at all metropolitan and regional offices. Where site data was not available, consumption was estimated using daily consumption rates obtained from information that was available for the relevant site in the current or previous financial years.

EPA's head office in Carlton has a 3-star NABERS rating for base building water which has reduced from 4 stars in prior years. This is due to an increase in absolute water consumption, water consumption per FTE and water consumption per office area since 2017–18. In turn, the increase in total water consumption metrics was driven by an increase in total FTE figures. The increase in the per FTE consumption was due to the number of people at EPA's head office. These people were predominantly consultants who were onsite for the majority of the year but not included in the FTE count.

Table 12.11: Water use (office facilities only)

INDICATOR	2018–19	2017–18	2016–17
W1. Total water consumption (kilolitres)	7,305	6,494	8,986
W2. Units of office water used as per FTE (kilolitres/FTE)	10.81	10.24	19.49
W3. Units of office water used per office area (kilolitres/m^2)	0.62	0.55	0.83

Water use targets

EPA's water target for 2018–19, as outlined in the Sustainability Plan, is a water use intensity target expressed as the number of kilolitres consumed per square-meter of floor area (kL/m^2). Table 12.12 presents EPA's performance against its water use intensity target showing the target was not met primarily due to the increase in FTE and consultants present on site. EPA has moved further away from its target since 2017–18 where water use per year (kL/m^2) was 0.55.

Table 12.12: Current performance against Sustainability Plan targets for water

MEASURE	2018–19 TARGET	2018–19 RESULT
Water use per year (kilolitres/m^2)	0.28	0.62

Transport

EPA's transport footprint includes vehicles, air travel and staff commuting. Table 12.13 shows EPA's energy consumption and greenhouse gas emissions performance for the 2018–19, 2017–18 and 2016–17 financial years. Data for EPA's vehicle fleet and flights was obtained from fuel card and other internal reports while staff commuting data was obtained from a survey distributed to 348 staff members and extrapolated across all EPA staff.

EPA encourages its staff members to use public transport for official work whenever possible. EPA's video conferencing facilities have greatly reduced the need for staff to travel to other offices. A greater percentage of staff commuting to the head office in the CBD use more sustainable forms of transport than in the greater Melbourne and regional offices where the transport infrastructure is not as established and accessible.

The increase in total vehicle fleet energy consumption, kilometres travelled and emissions is attributed to an increase in EPA vehicle fleet in the last quarter of 2017–18. Vehicle numbers increased from 60 to 75, a 25 per cent increase which is in line with the 24 per cent increase in energy consumption. Additionally, the increase in emissions as well as the decrease in fuel efficiency is due to changes in the State Purchasing Board vehicle contracts and the consequent limited ability to purchase fuel efficient vehicles suitable for business needs.

Air travel distance decreased slightly due to a decrease in the number of national and international events as compared with the spike in 2017–18 which was associated with the PFAS National Environmental Management Plan Roadshow. Finally, there was a decrease in the use of sustainable transport by staff to get to and from work.

Table 12.13: Transport

INDICATOR	2018–19	2017–18	2016–17
T1. Total energy consumption by vehicles (MJ)	3,879,170	3,133,598	2,818,382
Diesel	988,188	1,154,717	1,230,558
LPG	-	149,228	577,741
ULP	2,492,221	1,462,305	1,010,083
Hybrid	398,760	367,347	NA[1]
T2. Total vehicle travel associated with entity operations (km)	1,214,377	1,072,772	937,718
Diesel	306,437	346,952	399,317
LPG	-	73,320	175,698
ULP	721,429	474,920	362,703
Hybrid	186,511	177,581	NA[1]
T3. Total greenhouse gas emissions from vehicle fleet (tCO2e)	308	252	200
Diesel	73	86	91
LPG	-	10	37
ULP	206	130	72
Hybrid	28	26	NA[1]
T3. Greenhouse gas emissions from vehicle fleet per 1,000 km travelled (tCO2e)	0.25	0.23	0.21
Diesel	0.24	0.25	0.23
LPG	0	0.13	0.21
ULP	0.29	0.27	0.20
Hybrid	0.15	0	NA[1]
T4. Total distance travelled by aeroplane (km)	414,085	598,082	305,817
T5. Percentage of employees using sustainable[2] modes of transport to get to and from work or working from home	70%	76%	78%
CBD (%)[3]	86%		
Metro (%)	73%		
Regional (%)	48%		

Notes:

1. Data from hybrid vehicles is incorporated in ULP data for 2016–17.
2. Sustainable transport is defined here as public transport, cycling, walking, car-pooling, electric or hybrid vehicles.
3. The percentage of employees using sustainable modes of transport to get to and from work or working from home by location (CBD, metro and regional) was unavailable prior to 2018–19. As such, the total percentage has been provided across 2018–19, 2017–18 and 2016–17 for ease of comparison.

Transport targets

EPA's two transport targets per the Sustainability Plan for 2018–19 included:

› A target to increase vehicle fleet fuel efficiency, expressed as emissions generated per kilometre travelled, against a 2013–14 baseline.

› A target to increase the percentage of employees using sustainable modes of transport to travel to work or working from home, against a 2013–14 baseline of 74 per cent.

Table 12.14 shows EPA's performance against these two targets. The table shows that neither target has been met.

Table 12.14: Current performance against Sustainability Plan targets for transport

MEASURE	2018–19 TARGET	2018–19 RESULT
Increase in fuel efficiency of vehicle fleet	0.2288	0.2425
Increase in use of sustainable transport for work purposes	74%	70%

Greenhouse gas emissions

Table 12.15 summarises EPA's greenhouse gas emissions for the 2018–19, 2017–18 and 2016–17 financial years. EPA voluntarily purchases carbon offsets to achieve net zero emissions each year.

EPA's total greenhouse gas emissions for 2018–19 was 3,624 t.CO_2-e. This represents a four per cent decrease in greenhouse gas emissions from 2017–18 due to a number of EPA's resource consumption reduction initiatives discussed above.

Table 12.15: Greenhouse gas emissions

INDICATOR	2018–19	2017–18	2016–17
G1. Total greenhouse gas emissions associated with energy use (tCO_2e)	2,734	2,963	2,153
G2. Total greenhouse gas emissions associated with vehicle fleet (tCO_2e)	279	226	200
G3. Total greenhouse gas emissions associated with air travel (tCO_2e)	71	110	53
G4. Total greenhouse gas emissions associated with waste disposal (tCO_2e)	8	7	5
G5. Total emissions from other sources (tCO_2e)[1]	532	484	591
G6. Greenhouse gas emissions offsets purchased (tCO_2e)[2]	3,800	4,000	3,100

Notes:

1. Greenhouse gas emissions from other sources include: vehicle refrigeration, building refrigeration and air conditioning, taxi use, public transport use, boat fuel, printing and publications, catering, couriers, commuting, reticulated water and paper use.
2. EPA purchases more offsets than the sum of its emissions to provide sufficient buffer for estimated data.

Greenhouse gas emissions targets

EPA's greenhouse gas emissions target per the Sustainability Plan for 2018–19 can be found in Table 12.16. The target is set as a reduction of EPA's emissions by 15 per cent from its 2009–10 baseline. Table 12.16 presents EPA's performance against its greenhouse gas emissions target showing that the target has been exceeded for 2018–19.

Table 12.16: Current performance against Sustainability Plan targets for greenhouse gas

MEASURE	2018–19 TARGET	2018–19 RESULT
Reduction in greenhouse gas emissions	15%	25%

Greener Procurement

EPA applies sustainability criteria to all procurements with a fixed weighting of 10 per cent to all potential suppliers' environmental management practices. EPA has a current target of purchasing 100 per cent recycled paper at all EPA offices.

We minimise our environmental impact by applying sustainability criteria to the purchase of stationery, cleaning, paper, catering and venue hire. We use ecologically sustainable design guidelines for new buildings or office fit-outs. Examples of how we have incorporated environmental procurement decisions are:

- 99 per cent of EPA's office paper was 100 per cent recycled
- 100 per cent of computer screens are LCD
- 100 per cent of printers, multifunctional devices and photocopiers, including portable printers that enable on-site printing of inspection reports, have duplex capacity and print-on-demand functionality
- all procurement more than $30,000 is evaluated with weighted criteria requiring potential suppliers to demonstrate their approach to minimising their own environmental impacts and the impacts of the goods and services they provide.

Procurement

EPA's Procurement and Contracts Team supported activity across the business to ensure compliance, best practice and value-for-money outcomes. Procurement processes occur on terms and conditions consistent with the Victorian Government Purchasing Board requirements. In addition, all potential suppliers were evaluated partially based on their efforts to minimise their environmental impacts.

Other information available on request

Information listed below (as per the Financial Reporting Directive 22B of the *Financial Management Act 1994*) is held at EPA's head office in Melbourne, located at 200 Victoria Street, Carlton, and is available on request, subject to the *Freedom of Information Act 1982*:

- details of shares held by a senior officer as nominee or held beneficially in a statutory authority or subsidiary
- details of publications produced by EPA about ourselves, and where they can be obtained
- details of changes in prices, fees, charges, rates and levies charged by EPA
- details of any major external reviews carried out in respect of the operation of EPA
- details of major research and development activities undertaken by EPA
- details of overseas visits undertaken, including a summary of the objectives and outcomes of each visit
- details of major promotional, public relations and marketing activities undertaken by EPA to develop community awareness of EPA and our services
- details of assessments and measures undertaken to improve occupational health and safety of employees not otherwise detailed in the report of operations
- a general statement on industrial relations within EPA, and details of time lost through industrial accidents and disputes
- a list of major committees sponsored by EPA, the purpose of each committee, and the extent to which the purposes have been achieved
- details of all consultancies and contractors including consultants/contractors engaged, services provided, and expenditure committed for each engagement.

In addition, EPA confirms that:

- declarations of pecuniary interests have been duly completed by all relevant officers of EPA.

Compliance with the Data.Vic Access Policy

Consistent with the Data.Vic Access Policy issued by the Victorian Government in 2012, the information included in this Annual Report will be available at **www.data.vic.gov.au** in machine-readable format.

12 Other disclosures continued

Environment Protection Authority (EPA) Victoria Financial Management Compliance Attestation Statement

I, Cheryl Batagol, on behalf of the Responsible Body, certify that the Environment Protection Authority Victoria has complied with the applicable Standing Directions 2018 under the *Financial Management Act 1994* and Instructions.

Ms Cheryl Batagol PSM
Chairperson
Responsible Body

Melbourne
3 September 2019

13 Definitions

The following definitions explain scientific and technical terms used in this Annual Report .

Air quality: The condition of the air described by the presence of air pollution or other contamination at a particular place and time. Air quality can be investigated by measuring levels of common pollutants such as ozone, carbon monoxide and small particles.

AirWatch: AirWatch is an interactive map that shows air quality information measured by EPA's air monitoring stations around Victoria. It is available at **www.epa.vic.gov.au**

Carbon monoxide: Carbon monoxide is a colourless and odourless gas that comes mainly from car exhausts. It is toxic to humans at concentrations above 35 parts per million (ppm).

CUTEP: Clean Up To Extent Practicable. Where polluted groundwater has been identified, EPA's role is to require cleanup. If it is impracticable to clean up groundwater to the level needed to restore beneficial uses, EPA may accept that cleanup to the extent practicable has occurred and that, subject to appropriate ongoing management, further cleanup is not required.

Combustible recyclable and waste materials: Includes paper, cardboard, wood, plastic, rubber, textile, organic material, refuse derived fuel, specified electronic waste, metals, and other combustible material which is considered waste.

Emerging contaminants: Chemicals released into the environment that may harm ecosystems or humans, but for which we may not yet have clear environmental standards. Examples include pesticides and industrial chemicals.

GQRUZ: Groundwater Quality Restricted Use Zone. GQRUZs (previously known as polluted groundwater zones) are areas of aquifers that have been identified by EPA where one or more beneficial use(s) of the groundwater are precluded by pollution. GQRUZs may be of local or regional scale and may relate to a specific or diffuse source. EPA may identify an area as a GQRUZ where it has determined that cleanup to the extent practicable has occurred.

Nitrogen dioxide (NO_2): Nitrogen dioxide is a gas that is known to affect the throat and the lungs. In levels encountered in polluted air, people with respiratory problems, particularly infants, children and the elderly, may be affected. EPA monitors nitrogen dioxide in Victoria's air through AirWatch.

pH: pH is a measure of the hydrogen ion concentration of a solution. Solutions with a high hydrogen ion concentration have a low pH and those with a low concentration have a high pH. A solution with a low pH – less than 7 – is an acidic solution, whereas one with a high pH – greater than 7 – is alkaline or basic. A solution with a pH of 7 is neutral.

PM_{10}: Particles in the air with a diameter less than 10 micrometres. These particles can be a variety of shapes and sizes (up to 10 micrometres). They are small enough to get into the lungs and can cause health problems. Sources of these particles include combustion, crushing or grinding operations, pollen, road dust and sea salt. EPA monitors PM_{10} in Victoria's air through AirWatch.

$PM_{2.5}$: Particles in the air smaller than 2.5 micrometres in diameter. General sources of these particles include all types of combustion, including motor vehicles, power plant emissions and fires. Fine particles pose the greatest risk to human health, as their size means they can be breathed deep into the lungs. These particles are up to 30 times smaller than the width of a single human hair. EPA monitors $PM_{2.5}$ in Victoria's air through AirWatch.

PFAS: Per- and polyfluorinated alkyl substances are a group of manufactured chemicals that have historically been used in firefighting foams and other industrial and consumer products for many decades.

Pollution abatement notices (PANs): PANs are issued under s. 31A of the *Environment Protection Act 1970*. They aim to prevent further occurrence of pollution or potential environmental risk through installation of risk controls and changes to on-site processes and practices. Post-closure pollution abatement notices (PC PANs): In order to ensure that the risks are appropriately quantified and managed, owners of closed landfill sites are issued with pollution abatement notices that require the closed landfill to be managed so there are no unacceptable risks to the environment. These are referred to as PC PANs.

Prescribed industrial waste (PIW): PIW is waste that is potentially harmful to humans or the environment and has the properties set out in the Environment Protection (Industrial Waste Resource) Regulations 2009. PIW can take different forms – solid, liquid or gaseous. Examples of PIW include waste paints and solvents, contaminated soil, waste oil and filter cake.

13 **Definitions** continued

Sulfur dioxide (SO_2): Sulfur dioxide is an irritant gas that attacks the throat and lungs. Its effect on health is increased by the presence of airborne particles. Prolonged exposure to sulfur dioxide can lead to increases in respiratory illnesses like chronic bronchitis. EPA monitors sulfur dioxide in Victoria's air through AirWatch.

ug/m^3: The concentration of an air pollutant in micrograms per cubic metre of air.

Underground petroleum storage systems (UPSS): UPSS have the potential to leak, leading to expensive clean-up costs, damage to the environment and risks to human health.

53X: A 53X ('condition of the environment') audit is most frequently used by the planning system and verifies that potentially contaminated land can be used for a specific use (industrial, commercial or residential). From a 53X audit comes either a certificate or statement of environmental audit. Generally, a 53X audit is required when land proposed for new use is potentially contaminated or already covered by an environmental audit overlay (EAO) within a planning scheme. An example of this might be construction of residential buildings on former industrial land.

14 Disclosure index

EPA's Annual Report is prepared in accordance with all relevant Victorian legislations and pronouncements. This index has been prepared to facilitate identification of the department's compliance with statutory disclosure requirements.

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14 Disclosure index continued

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15 Responsible Bodies Declaration

The attached financial statements have been prepared in accordance with Direction 5.2 of the Standing Directions of the Assistant Treasurer under the *Financial Management Act 1994*, applicable Financial Reporting Directions, Australian Accounting Standards including interpretations, and other mandatory professional reporting requirements.

We further state that, in our opinion, the information set out in the comprehensive operating statement, balance sheet, statement of changes in equity, cash flow statement and accompanying notes, presents fairly the financial transactions during the year ended 30 June 2019 and financial position of the Authority at 30 June 2019.

At the time of signing, we are not aware of any circumstance which would render any particulars included in the financial statements to be misleading or inaccurate.

We authorise the attached financial statements for issue on 3 September 2019.

Ms Cheryl Batagol PSM
Chairperson
Environment Protection Authority

Melbourne
3 September 2019

Dr Cathy Wilkinson
Chief Executive Officer
Environment Protection Authority

Melbourne
3 September 2019

Jeremy Huntley
Chief Financial Officer
Environment Protection Authority

Melbourne
3 September 2019

16 Independent Auditor's Report

Independent Auditor's Report

Victorian Auditor-General's Office

To the Board of the Environment Protection Authority

Opinion	I have audited the financial report of the Environment Protection Authority (the authority) which comprises the: • balance sheet as at 30 June 2019 • comprehensive operating statement for the year then ended • statement of changes in equity for the year then ended • cash flow statement for the year then ended • notes to the financial statements, including significant accounting policies • declaration in financial statements. In my opinion, the financial report presents fairly, in all material respects, the financial position of the authority as at 30 June 2019 and its financial performance and cash flows for the year then ended in accordance with the financial reporting requirements of Part 7 of the *Financial Management Act 1994* and applicable Australian Accounting Standards.
Basis for Opinion	I have conducted my audit in accordance with the *Audit Act 1994* which incorporates the Australian Auditing Standards. I further describe my responsibilities under that Act and those standards in the *Auditor's Responsibilities for the Audit of the Financial Report* section of my report. My independence is established by the *Constitution Act 1975.* My staff and I are independent of the authority in accordance with the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants* (the Code) that are relevant to my audit of the financial report in Victoria. My staff and I have also fulfilled our other ethical responsibilities in accordance with the Code. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.
Board's responsibilities for the financial report	The Board of the authority is responsible for the preparation and fair presentation of the financial report in accordance with Australian Accounting Standards and the *Financial Management Act 1994*, and for such internal control as the Board determines is necessary to enable the preparation and fair presentation of a financial report that is free from material misstatement, whether due to fraud or error. In preparing the financial report, the Board is responsible for assessing the authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is inappropriate to do so.

Auditor's responsibilities for the audit of the financial report

As required by the *Audit Act 1994,* my responsibility is to express an opinion on the financial report based on the audit. My objectives for the audit are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the authority's internal control
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board
- conclude on the appropriateness of the Board's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the authority's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the authority to cease to continue as a going concern.
- evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

I communicate with the Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

MELBOURNE
6 September 2019

Paul Martin
as delegate for the Auditor-General of Victoria

17 How these financial statements are structured

Environment Protection Authority (the Authority) has pleasure in presenting its audited general purpose financial statements for the financial year ended 30 June 2019, which provides users with information about the Authority's stewardship of resources entrusted to it. The 2018-19 financial year has seen the Authority continue an extensive transformation program, aligned with the Authority's organisational strategy: **Our environment, Our health**.

The general purpose financial statements are presented in the following structure:

Financial statements

Comprehensive operating statement

Balance sheet

Statement of changes in equity

Cash flow statement

Notes to the financial statements

1. **About this report**
   The basis on which the financial statements have been prepared and compliance with reporting regulations
2. **Funding delivery of our services and transformation initiatives**
   Revenue recognised in respect of grants and other income sources
3. **The cost of delivering services and transformation initiatives**
   Operating expenses of the Authority
4. **Financial information by output**
   Outputs and administered (non-controlled) items
5. **Key assets available to support service delivery and transformation initiatives**
   Infrastructure, plant and equipment, intangible assets and investments
6. **Other assets and liabilities**
   Working capital balances and other key assets and liabilities
7. **Financing our operations**
   Borrowings, cash flow information and leases
8. **Risks, contingencies and valuation judgements**
   Financial risk management, contingent assets and liabilities as well as fair value determination
9. **Other disclosures**

18 Comprehensive Operating Statement

For the financial year ended 30 June 2019

	NOTES	2019 ($ '000)	2018 ($ '000)
INCOME FROM TRANSACTIONS			
Grants received from Departments	2.3	5,381	6,253
Municipal and Industrial Landfill levy distribution (i)	2.3	60,882	28,767
Prescribed Industrial Waste levy	2.1	48,130	42,799
Other revenue	2.2	12,954	8,906
Grants received – reform output funding (ii)(iii)	2.4	44,380	45,879
Grants received – reform asset funding (ii)(iii)	2.4	5,000	2,901
Total income from transactions		**176,727**	**135,505**
EXPENSES FROM TRANSACTIONS			
Employee expenses	3.1.1	(80,269)	(69,439)
Grant expenses	3.1.2	(5,816)	(2,713)
Depreciation and amortisation	5.1.1	(7,867)	(6,506)
Interest expense	7.1.2	(78)	(66)
Other operating expenses (i)	3.1.3	(83,120)	(32,562)
Total expenses from transactions		**(177,150)**	**(111,286)**
Net result from transactions		**(423)**	**24,219**
OTHER ECONOMIC FLOWS INCLUDED IN NET RESULT			
Net gain/(loss) on non-financial assets	9.7 (a)	1,889	(1,711)
Net gain/(loss) on statutory receivables	9.7 (b)	(1,957)	(1,510)
Net gain/(loss) on financial instruments	9.7 (c)	268	1,085
Other gains/(losses) from other economic flows	9.7 (d)	(32)	(6)
Total other economic flows included in net result		**168**	**(2,142)**
Net result		**(255)**	**22,077**
Comprehensive result		**(255)**	**22,077**

Notes:

(i) In 2018-19, the Authority recognised additional funding and a provision associated with site remediation works associated with a commercial site. Refer Note 6.4.

(ii) In 2018-19, the Authority received additional Municipal and Industrial (M&I) Landfill levy distribution grants as part of the third year of the *'Bringing our Environment Protection Authority into the modern era'* initiative. This revenue includes funding for asset investment purposes which has been capitalised on the Authority's balance sheet.

(iii) This income stream currently expires at the end of 2020-21 in line with the *'Bringing our Environment Protection Authority into the modern era'* initiative funding.

The accompanying notes form part of these financial statements.

19 Balance Sheet

As at 30 June 2019

ASSETS	NOTES	2019 ($ '000)	2018 ($ '000)
FINANCIAL ASSETS			
Cash and deposits	7.2	40,035	69,395
Investments	5.3	83,442	63,174
Receivables (i)	6.1	77,082	48,890
Total financial assets		**200,559**	**181,459**
NON-FINANCIAL ASSETS			
Property, plant and equipment	5.1	35,456	15,855
Intangible assets	5.2	5,809	8,985
Non-financial physical assets classified as held-for-sale	9.5	26	–
Other non-financial assets	6.3	1,982	1,962
Total non-financial assets		**43,273**	**26,802**
Total assets		**243,832**	**208,261**
LIABILITIES			
Employee-related provisions	3.1.1(b)	16,077	13,426
Payables	6.2	14,939	10,462
Provisions (i)	6.4	34,617	5,935
Borrowings	7.1	2,273	2,257
Total liabilities		**67,906**	**32,080**
Net assets		**175,926**	**176,181**
EQUITY			
Accumulated surplus		168,882	169,137
Contributed capital		3,361	3,361
Physical asset revaluation surplus	9.6	3,683	3,683
Net worth		**175,926**	**176,181**

Notes:

(i) In 2018-19, the Authority recognised a receivable and a provision associated with site remediation works associated with a commercial site. Refer Note 6.4.

The accompanying notes form part of these financial statements.

20 Statement of Changes in Equity

For the financial year ended 30 June 2019

	PHYSICAL ASSET REVALUATION SURPLUS ($ '000)	ACCUMULATED SURPLUS ($ '000)	CONTRIBUTIONS BY OWNER ($ '000)	TOTAL ($ '000)
Balance at 1 July 2017	**3,683**	**147,060**	**3,361**	**154,104**
Net result for the year	–	22,077	–	22,077
Balance at 30 June 2018	**3,683**	**169,137**	**3,361**	**176,181**
Net result for the year		(255)		(255)
Balance at 30 June 2019	**3,683**	**168,882**	**3,361**	**175,926**

The accompanying notes form part of these financial statements.

21 Cash Flow Statement

For the financial year ended 30 June 2019

CASH FLOWS FROM OPERATING ACTIVITIES	NOTES	2019 ($ '000)	2018 ($ '000)
RECEIPTS			
Receipts from Government		88,609	72,909
Receipts from other entities		59,042	46,446
Goods and services tax recovered from the ATO (i)		6,395	3,804
Interest received		1,620	1,292
Total receipts		**155,666**	**124,451**
PAYMENTS			
Payments of grants and other transfers		(5,816)	(2,713)
Payments to suppliers and employees		(136,399)	(107,512)
Interest and other costs of finance paid		(78)	(66)
Total payments		**(142,293)**	**(110,291)**
Net cash flows from/(used in) operating activities	7.2.1	**13,373**	**14,160**
CASH FLOWS FROM INVESTING ACTIVITIES			
Proceeds/payment for financial assets		(20,268)	(1,085)
Purchases of non-financial assets		(21,274)	(2,431)
Sales of non-financial assets		–	56
Net cash flows from/(used in) investing activities		**(42,242)**	**(3,460)**
CASH FLOWS FROM FINANCING ACTIVITIES			
Repayment of finance leases		(491)	(507)
Net cash flows from/(used in) financing activities		**(491)**	**(507)**
Net increase/(decrease) in cash and cash deposits		**(29,360)**	**10,193**
Cash and cash deposits at beginning of the financial year		69,395	59,202
Cash and cash deposits at end of the financial year	7.2	**40,035**	**69,395**

Notes:

(i) GST paid to the Australian Taxation Office (ATO) is presented on a net basis.

The accompanying notes form part of these financial statements.

22 Notes to the Financial Statement

For the financial year ended 30 June 2019

1. About this report

The Authority is a wholly owned and controlled entity of the state of Victoria.

On 1 July 2018, the *Environment Protection Act 2017* became effective and transitioned the Authority from an Administrative Office of the Department of Environment, Land, Water and Planning (the Department) to an Independent Statutory Authority, operating under a new governance structure consisting of a Governing Board as the Responsible Body.

Its principal address is: Environment Protection Authority Victoria
200 Victoria Street
Carlton VIC 3053

The financial statements include all the controlled activities of the Authority.

A description of the nature of the Authority's operations and its principal activities is included in the report of operations, which does not form part of these financial statements.

Basis of preparation

These financial statements are presented in Australian dollars and the historical cost convention is used unless a different measurement basis is specifically disclosed in the note associated with the item measured on a different basis.

The accrual basis of accounting has been applied in the preparation of these financial statements whereby assets, liabilities, equity, income and expenses are recognised in the reporting period to which they relate, regardless of when cash is received or paid.

Judgements, estimates and assumptions are required to be made about financial information being presented. The significant judgements made in the preparation of these financial statements are disclosed in the notes where amounts affected by those judgements are disclosed. Estimates and associated assumptions are based on professional judgements derived from historical experience and various other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates.

Revisions to accounting estimates are recognised in the period in which the estimate is revised and also in future periods that are affected by the revision. Judgements and assumptions made by management in applying Australian Accounting Standards (AASs) that have significant effects on the financial statements and estimates are disclosed in the notes under the heading: 'Significant judgement: Fair value measurement of assets and liabilities'.

All amounts in the financial statements have been rounded to the nearest $1,000 unless otherwise stated.

Compliance information

These general purpose financial statements have been prepared in accordance with the Financial Management Act 1994 and applicable AASs, including interpretations issued by the Australian Accounting Standards Board (AASB). In particular, they are presented in a manner consistent with the requirements of the *Whole of Government and General Government Sector Financial Reporting* (AASB 1049).

Where appropriate, those AASs paragraphs applicable to not-for-profit entities have been applied. Accounting policies selected and applied in these financial statements ensure that the resulting financial information satisfies the concepts of relevance and reliability, thereby ensuring that the substance of the underlying transactions or other events is reported.

The general purpose financial statements have been prepared on a going-concern basis.

22 Notes to the Financial Statement

For the financial year ended 30 June 2019 continued

2. Funding delivery of our services and transformation initiatives

Introduction

The Authority's purpose is to protect human health and the environment by reducing the harmful effects of pollution and waste.

The Authority derives the majority of its revenue from grants and reform funding received from the Department, Municipal and Industrial (M&I) Landfill levy distributions and Prescribed Industrial Waste (PIW) levy.

Other income comprises earnings on investments and litter fines.

In 2018-19, the Authority received additional M&I Landfill levy distribution grants as part of the third year of the *'Bringing our Environment Protection Authority into the modern era'* initiative.

In addition, the Authority received funding to clean-up a waste stockpile in regional Victoria to reduce the risk to community and environment.

Structure

2.1 Summary of income that funds the delivery of our services and transformation initiatives

	NOTES	2019 ($ '000)	2018 ($ '000)
Grants received from the Department	2.3	5,381	6,253
M&I Landfill levy distribution from the Department	2.3	60,882	28,767
PIW levy		48,130	42,799
Other revenue	2.2	12,954	8,906
Grants – reform output funding	2.4	44,380	45,879
Grants – reform asset funding	2.4	5,000	2,901
Total income from transactions		**176,727**	**135,505**

Income is recognised to the extent that it is probable that the economic benefits will flow to the Authority and the income can be reliably measured. Where applicable, amounts disclosed as income are net of returns, allowances, duties and taxes. All amounts of income over which the Authority does not have control are disclosed as administered income in the schedule of administered income (see Note 4.2).

Revenue is recognised on an accrual basis in accordance with AASB 118 Revenue. Landfill levies, such as PIW levy, received during the year, are recorded in the year the revenue was earned. Levies for which landfill operators have not yet submitted returns at the end of the financial year, are recorded as accrued revenue.

2.2 Other revenue

	2019 ($ '000)	2018 ($ '000)
Licence levy	358	345
Interest from financial assets – public sector	1,306	1,343
Interest and holding gains from financial assets – non-public sector	4,010	1,691
Litter fines	4,861	3,533
Miscellaneous	2,016	1,666
Environment audit fees	403	328
Total other revenue	**12,954**	**8,906**

Interest income includes interest received on bank term deposits and other investments. Interest income is recognised using the effective interest method which allocates the interest over the relevant period.

2.3 Grants received

	2019 ($ '000)	2018 ($ '000)
Grants received from the Department	5,381	6,253
M&I Landfill levy distribution from the Department (i)	60,882	28,767
Total grants received	**66,263**	**35,020**

Note:

(i) M&I distribution includes the Government's revenue commitment for site remediation works associated with a commercial site. Refer Note 6.4..

Grants can be received as general-purpose grants which refers to grants that are not subject to conditions regarding their use. Alternatively, they may be received as specific-purpose grants which are paid for a particular purpose and/or have conditions attached regarding their use.

2.4 Grants – reform funding

	2019 ($ '000)	2018 ($ '000)
Grants – reform output funding	44,380	45,879
Grants – reform asset funding	5,000	2,901
Total grants – reform funding	**49,380**	**48,780**

In 2018-19, the Authority received additional M&I Landfill levy distribution grants as part of the third year of the *'Bringing our Environment Protection Authority into the modern era'* initiative. This revenue includes funding for asset investment purposes which has been capitalised on the Authority's balance sheet.

This income stream currently expires at the end of 2020-21 in line with the *'Bringing our Environment Protection Authority into the modern era'* initiative funding.

2.5 Contributions by owners

During the course of the year, the Authority received no contributed capital transfers; however, grant funding of $5.00 million (30 June 2018: $2.90 million) was received for capital works on specific projects reflected in Note 2.4.

3. The cost of delivering services and transformation initiatives

Introduction

This section provides an account of the expenses incurred by the Authority in delivering services, transformation initiatives and outputs. In Section 2, the revenue that enables the delivery of our services was disclosed and in Section 3, the cost associated with provision of services is recorded.

In 2018-19, the Authority stepped in to commence clean up of a waste stockpile in regional Victoria to reduce the risk to community and environment. This action will ensure that fire prevention can continue, ahead of a full clean-up.

Structure

3.1 Expenses incurred in delivery of services and transformation initiatives

	NOTES	2019 ($ '000)	2018 ($ '000)
Employee expenses	3.1.1	80,269	69,439
Grant expenses	3.1.2	5,816	2,713
Other operating expenses (i)	3.1.3	83,120	32,562
Total expenses incurred in delivery of services and transformation initiatives		**169,205**	**104,714**

Note:
(i) The Authority recognised a provision for site remediation works of a commercial site. Refer Note 6.4.

3.1.1 Employee benefits

3.1.1(a) Employee benefits – comprehensive operating statement

	2019 ($ '000)	2018 ($ '000)
Salary and wages, annual leave and long service leave	74,168	64,113
Post-employment benefits:		
Defined contribution superannuation expense	5,785	4,982
Defined benefit superannuation expense	316	344
Total employee expenses	**80,269**	**69,439**

Employee expenses include all costs related to employment (other than superannuation which is accounted for separately) including salaries, fringe benefits tax, leave entitlements, redundancy payments and WorkCover premiums.

3.1.1(a) Employee benefits – comprehensive operating statement (continued)

The amount recognised in the comprehensive operating statement in relation to members of defined contribution and defined benefit superannuation plans is the employer contributions that are paid or payable to these plans during the reporting period.

The Authority does not recognise any defined benefit liabilities because it has no legal or constructive obligation to pay future benefits relating to its employees. Instead, the Department of Treasury and Finance (DTF) discloses in its annual financial statements the net defined benefit cost related to the members of these plans as an administered liability (on behalf of the State as the sponsoring employer).

3.1.1(b) Employee benefits in the balance sheet

	2019 ($ '000)	2018 ($ '000)
CURRENT PROVISIONS		
Annual leave		
Unconditional and expected to be settled within 12 months	4,907	4,362
Long service leave		
Unconditional and expected to be settled within 12 months	590	458
Unconditional and expected to be settled after 12 months	6,570	5,369
Provisions for on-costs		
Unconditional and expected to be settled within 12 months	954	838
Unconditional and expected to be settled after 12 months	1,016	836
Total current provisions for employee benefits	**14,036**	**11,863**
NON-CURRENT PROVISIONS		
Conditional long service leave	1,768	1,352
On-costs	273	211
Total non-current provisions for employee benefits	**2,041**	**1,563**
Total provisions for employee benefits	**16,077**	**13,426**

Provision is made for benefits accruing to employees in respect of wages and salaries, annual leave and long service leave for services rendered to the reporting date and recorded as an expense during the period the services are delivered.

Reconciliation of movement in on cost provisions

	2019 ($ '000)
Opening balance as at 1 July 2018	**1,885**
Additional provisions recognised	1,102
Additions due to transfer in	14
Reduction arising from payments/other sacrifices of future economic benefits	(747)
Reduction resulting from re-measurement or settlement without cost	
Unwind of discount and effect of changes in the discount rate	(12)
Closing balance as at 30 June 2019	**2,243**
Current	1,970
Non-current	273

3.1.1(b) Employee benefits in balance sheet (continued)

Wages, salaries and annual leave:

Liabilities for wages and salaries, including non-monetary benefits and annual leave are recognised in the provision for employee benefits as 'current liabilities', because the Authority does not have an unconditional right to defer settlement of these liabilities.

The liability for salaries and wages are recognised in the balance sheet at remuneration rates which are current at the reporting date. As the Authority expects the liabilities to be wholly settled within 12 months of reporting date, they are measured at undiscounted amounts.

The annual leave liability is classified as a current liability and measured at the undiscounted amount expected to be paid, as the Authority does not have an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

No provision has been made for sick leave as all sick leave is non-vesting and it is not considered probable that the average sick leave taken in the future will be greater than the benefits accrued in the future. As sick leave is non-vesting, an expense is recognised in the Statement of Comprehensive Income as it is taken.

Employment on-costs such as payroll tax, workers compensation and superannuation are not employee benefits. They are disclosed separately as a component of the provision for employee benefits when the employment to which they relate has occurred.

Unconditional long service leave is disclosed as a current liability, even where the Authority does not expect to settle the liability within 12 months because it will not have the unconditional right to defer the settlement of the entitlement should an employee take leave within 12 months.

The components of these liabilities are measured at:

- undiscounted value — if the Authority expects to wholly settle within 12 months; or
- present value — if the Authority does not expect to wholly settle within 12 months.

Conditional long service leave is disclosed as a non-current liability. There is a conditional right to defer the settlement of the entitlement until the employee has completed the requisite years of service. This non-current long service liability is measured at present value.

Any gain or loss following revaluation of the present value of non-current Long Service Leave liability is recognised as a transaction, except to the extent that a gain or loss arises due to changes in the bond interest rates for which it is recognised as another economic flow in the net result.

3.1.1(c) Superannuation contributions – comprehensive operating statement

Employees of the Authority are entitled to receive superannuation benefits and the Authority contributes to both defined benefit and defined contribution plans. The defined benefit plans provide benefits based on years of service and final average salary.

The name, details and amounts expensed in relation to the major employee superannuation funds and contributions made by the Authority are as follows:

	2019 ($ '000)	2018 ($ '000)
DEFINED BENEFIT PLANS (I)		
Emergency Services and State Superannuation Fund (ESS)	316	344
Total defined benefit plans	**316**	**344**
DEFINED CONTRIBUTION PLANS		
VicSuper	3,122	2,887
Other	2,663	2,095
Total defined contribution plans	**5,785**	**4,982**
Total	**6,101**	**5,326**

Note:

(i) The basis for determining the level of contributions is determined by the various actuaries of the defined benefit superannuation plans.

3.1.2 Grant expenses

	2019 ($ '000)	2018 ($ '000)
Grants to Victorian Government entities within portfolio	4,639	895
Grants to Victorian Government entities outside portfolio	652	1,397
Grants to external organisations	525	421
Total grant expenses	**5,816**	**2,713**

Transactions in which the Authority provides goods, services, assets (or extinguishes a liability) or labour to another party without receiving approximately equal value in return are categorised as 'grant expenses'. Grants can either be operating or capital in nature.

Grants were paid as specific purpose grants which are paid for a particular purpose and/or have conditions attached regarding their use.

Grant expenses are recognised as an expense in the reporting period in which they are paid or payable.

3.1.3 Other operating expenses

	2019 ($ '000)	2018 ($ '000)
Consultants and contracted services (i)	24,832	8,714
Agency costs	5,131	3,969
Shared services management fee	2,064	1,576
Occupancy and utilities	3,416	2,601
Supplies and services	13,129	11,658
Waste site remediation works(ii)	30,000	–
Ex gratia expense	–	700
OPERATING LEASE RENTAL EXPENSES		
Lease payments	4,548	3,344
Total other operating expenses	**83,120**	**32,562**

Note:

(i) The Authority sourced external services to support the Transformation program to meet the new legislation as part of the *'Bringing our Environment Protection Authority into the modern era'* initiative.

(ii) During 2018-19, the Authority recognised a provision for site remediation works of a commercial site. Refer Note 6.4.

Other operating expenses generally represent the day-to-day running costs incurred in normal operations which are recognised as an expense in the reporting period in which they are incurred.

Operating lease payments (including contingent rentals) are recognised on a straight-line basis over the lease term, except where another systematic basis is more representative of the time pattern of the benefits derived from the use of the leased asset.

22 Notes to the Financial Statement

For the financial year ended 30 June 2019 continued

4. Financial information by output

Introduction

The Authority's sole output as defined in the Victorian Government's *Budget Paper 3*, is Statutory Activities and Environment Protection.

Fines and regulatory fees: The Authority collects litter fines and PIW levies on its own behalf, but all other fines and regulatory fees are collected on behalf of the state.

Structure

4.1 Authority (controlled) outputs

4.2 Administered (non-controlled) items

Distinction between controlled and administered items

The distinction between controlled and administered items is based on whether the Authority has the ability to deploy the resources in question for its own benefit (controlled outputs) or whether it does so on behalf of the State (administered items). The Authority remains accountable for transactions involving administered items, but it does not recognise these items in its financial statements.

4.1 Authority (controlled) outputs

All financial activities associated with this output are reported in the comprehensive operating statement of the financial statements.

4.2 Administered (non-controlled) items

The Authority administers or manages other activities on behalf of the state. The transactions relating to these state activities are reported as administered items in this note. Administered transactions give rise to income, expenses, assets and liabilities and are determined on an accrual basis. Administered income includes taxes, fees and fines.

Administered assets include government income earned but yet to be collected. Administered liabilities include government expenses incurred but yet to be paid. The controlled Authority's financial statements and these administered items are consolidated into the financial statements of the state.

In respect to M&I Landfill levy, the Authority does not control the revenue and acts as an agent for the Department that recognises the revenue. Refer Note 9.3.

The Authority recognises amounts collected and payable to the Department as assets and liabilities determined on an accrual basis.

4.2 Administered (non-controlled) items (continued)

	2019 ($ '000)	2018 ($ '000)
ADMINISTERED INCOME FROM TRANSACTIONS		
Regulatory fees	15,904	14,706
Miscellaneous	449	390
Fines	872	583
User charges	238	262
Total administered income from transactions	**17,463**	**15,941**
Payments into the consolidated fund	(17,625)	(15,621)
Total administered expenses from transactions	**(17,625)**	**(15,621)**
Administered net result from transactions (net operating balance) for the year	**(162)**	**320**
Administered other economic flows included in administered net result		
Net gain/(loss) on receivables	(74)	–
Total administered other economic flows included in administered net result	**(74)**	**–**
Total administered comprehensive result for the year	**(236)**	**320**
ADMINISTERED FINANCIAL ASSETS		
Cash and deposits	44,900	17,800
Receivables	41,856	45,169
Accrued revenue	57,156	54,047
Total administered financial assets	**143,912**	**117,016**
Total administered assets	**143,912**	**117,016**
ADMINISTERED LIABILITIES		
Creditors and accruals (i)	142,521	115,357
Unearned income	–	34
Total administered liabilities	**142,521**	**115,391**
Total administered net assets	**1,300**	**1,625**

Note:
(i) M&I Landfill levies owing to the Department.

5. Key assets available to support service delivery and transformation initiatives

Introduction

The Authority controls assets and other investments that are utilised in fulfilling its objectives and conducting its activities. They represent the resources that have been entrusted to the Authority to be utilised for service delivery.

Significant judgement: fair value measurements of non-financial physical assets

The determination of fair values of non-financial physical assets requires significant judgement to be applied (including methodologies and assumptions).

Changes in assumptions could have a material impact on the fair values of the assets being valued.

Structure

5.1 Property, plant and equipment: carrying amount

	2019 ($ '000)	2018 ($ '000)
BUILDINGS LEASEHOLD IMPROVEMENTS		
At fair value – external valuation (i)	13,193	13,193
Less: accumulated depreciation	(9,351)	(8,829)
At fair value – internal valuation (ii)	11,008	9,051
Less: accumulated depreciation	(7,438)	(6,341)
Total buildings leasehold improvements	**7,412**	**7,074**
PLANT AND EQUIPMENT		
At fair value (iii)	18,113	16,950
Less: accumulated depreciation	(12,719)	(11,490)
Total plant and equipment	**5,394**	**5,460**
WORK-IN-PROGRESS		
At cost (iv)	20,417	1,073
Total work-in-progress	**20,417**	**1,073**
LEASED MOTOR VEHICLES		
At fair value	2,909	2,835
Less: accumulated depreciation	(676)	(587)
Total leased motor vehicles	**2,233**	**2,248**
Net carrying amount of property, plant and equipment	**35,456**	**15,855**

5.1 Property, plant and equipment: carrying amount (continued)

Notes:

(i) During 2015-16, an independent valuation of the Authority's building leasehold assets at Macleod was performed by Napier & Blakeley, in accordance with instructions from the Valuer-General Victoria, to determine the fair value of building leasehold improvements. These assets were classified as Level 3 in the fair value hierarchy defined in AASB 13 *Fair value measurement*. The valuation assumptions included envisaging reconstruction to a modern equivalent standard and temporary protection of adjoining buildings where appropriate.

Any revaluation increment arising on the revaluation of an asset was credited to the appropriate class of the asset revaluation surplus. On revaluation, accumulated depreciation is restated proportionately with the change in the carrying amount of the asset and any change in the estimate of remaining useful life.

(ii) During 2017-18, the Authority reviewed the fair value of all other buildings leasehold improvements and it was decided that the Authority would no longer use the leasehold improvement once the proposed redevelopment of one of the Authority's building leaseholds commenced. As such, an impairment loss of $1.8 million was recognised for the period based on its recoverable amount; the fair value of all other building leasehold improvements was not materially different to the estimated replacement cost.

In 2018-19, the Authority was advised the redevelopment would not proceed in the foreseeable future and the Authority now plans to remain at the premises until the expiry of the lease in July 2021. In accordance with AASB 136 management has reversed the prior year impairment loss in recognition of the future use of the asset. AASB136 directs that a reversal of an impairment loss shall be recognised in the net result. Depreciation charges have been re-instated to re-allocate the asset's revised carrying amount post impairment reversal.

(iii) The Authority measures items of plant and equipment at cost on initial recognition as an asset. During the financial year, the Authority reviewed the fair value of plant and equipment and it was determined that the fair value was not materially different to the depreciated replacement cost. Therefore, the depreciated replacement cost has been considered as fair value for plant and equipment as at 30 June 2019.

(iv) Work-in-progress relates to assets which are not yet completed or ready for use. These assets will be capitalised and commence depreciation upon commissioning. During 2018-19, the Authority commenced an extensive digital transformation program and investment in facilities to improve regional presence.

Initial recognition: Items of property, plant and equipment, are measured initially at cost and subsequently revalued at fair value less accumulated depreciation and impairment. Where an asset is acquired for no or nominal cost, the cost is its fair value at the date of acquisition.

The cost of a leasehold improvement is capitalised as an asset and depreciated over the remaining term of the lease or the estimated useful life of the improvement, whichever is shorter.

Subsequent measurement: Property, plant and equipment are subsequently measured at fair value less accumulated depreciation and impairment. Fair value is determined with regard to the asset's highest and best use (considering legal or physical restrictions imposed on the asset, public announcements or commitments made in relation to the intended use of the asset).

The fair value of plant, equipment and vehicles, is determined by reference to the asset's depreciated replacement cost. For plant, equipment and vehicles, existing depreciated historical cost is generally a reasonable proxy for depreciated replacement cost because of the short life of the assets concerned.

Refer to Note 8.3 for additional information on fair value determination of property, plant and equipment.

Impairment of property, plant and equipment: The recoverable amount of primarily non-cash generating assets of not-for-profit entities, which are typically specialised in nature and held for continuing use of their service capacity, is expected to be materially the same as fair value determined under AASB 13 Fair Value Measurement, with the consequence that AASB 136 does not apply to such assets that are regularly revalued.

5.1.1 Depreciation and amortisation

All buildings, plant and equipment and other non-financial physical assets that have a finite useful life, are depreciated. Depreciation is calculated on a straight-line basis, at rates that allocate the asset's value, less any estimated residual value, over its estimated useful life. The following useful lives of assets are used in the calculation of depreciation for both current and prior years:

ASSET CLASS	USEFUL LIFE
Buildings leasehold improvements	4 – 25 years
Plant and equipment	1 – 20 years
Leased motor vehicles	0 – 3 years

5.1 Property, plant and equipment: carrying amount (continued)

Where items of plant and equipment have significant and separately identifiable components which are subject to regular replacement, those components are assigned separate useful lives distinct from the item of plant and equipment to which they relate.

Leasehold improvements are depreciated over the period of the lease or estimated useful life, whichever is the shorter, using the straight-line method. The estimated useful lives, residual values and depreciation method are reviewed at the end of each annual reporting period.

In the event of the loss or destruction of an asset, the future economic benefits arising from the use of the asset will be written-off and the asset replaced (unless a specific decision to the contrary has been made).

Charge for the period

	2019 ($ '000)	2018 ($ '000)
Building leasehold improvements	1,619	1,419
Leased motor vehicles	496	450
Plant and equipment	1,301	1,121
Software (i)	4,451	3,516
Total depreciation and amortisation	**7,867**	**6,506**

Notes:

(i) Includes amortisation costs relating to the Authority's customer relationship management system of $3.9 million (2018 $3.1 million) (Refer Note 5.2).

5.1.2 Reconciliation of movements in carrying values of property, plant and equipment

	Buildings leasehold improvements at valuation and fair value ($ '000)	Plant and equipment at fair value ($ '000)	Leased motor vehicles at fair value ($ '000)	Work-in-progress ($ '000)	TOTAL ($ '000)
2019					
Opening balance	**7,074**	**5,460**	**2,248**	**1,073**	**15,855**
Additions	116	1,245	868	19,944	22,173
Disposals		(10)	(328)		(338)
Impairment loss reversed to net result (i)	1,840	–	–	–	1,840
Transfer to:					
Non-financial assets held for sale	–	–	(59)	–	(59)
Building lease improvements	–	–	–	(399)	(399)
Plant and equipment	–	–	–	(200)	(200)
Intangibles					
Depreciation	(1,619)	(1,301)	(496)	–	(3,416)
Closing balance	**7,412**	**5,394**	**2,233**	**20,417**	**35,456**

5.1.2 Reconciliation of movements in carrying values of property, plant and equipment (continued)

	Buildings leasehold improvements at valuation and fair value ($ '000)	Plant and equipment at fair value ($ '000)	Leased motor vehicles at fair value ($ '000)	Work-in-progress ($ '000)	TOTAL ($ '000)
2018					
Opening balance	**9,520**	**4,556**	**1,485**	**2,843**	**18,404**
Additions	813	2,025	1,753	953	5,544
Disposals	–	–	(540)	–	(540)
Impairment loss charged to net result (ii)	(1,840)	–	–	–	(1,840)
Transfer to:					
Building lease improvements	–	–	–	(510)	(510)
Plant and equipment	–	–	–	(1,193)	(1,193)
Intangibles	–	–	–	(1,020)	(1,020)
Depreciation	(1,419)	(1,121)	(450)	–	(2,990)
Closing balance	**7,074**	**5,460**	**2,248**	**1,073**	**15,855**

Notes:

(i) In 2018-19, the Authority was advised a planned redevelopment of a leasehold site will not proceed, and the Authority now plans to remain at the premises until the expiry of the lease in July 2021. In accordance with AASB 136 management has reversed the prior year impairment loss in recognition of the future use of the asset. AASB136 directs that a reversal of an impairment loss shall be recognised in the net result. Depreciation charges have been re-adjusted to re-allocate the asset's revised carrying amount post impairment reversal (Refer Note 9.7).

(ii) In 2017-18, due to a proposed redevelopment of one of the Authority's building leaseholds, it was decided that the Authority will no longer use the leasehold improvement once redevelopment commences. As such, an impairment loss was recognised for the period based on its recoverable amount. Impairment losses are included in the line item 'net gain/(loss) on non-financial assets' in the comprehensive operating statement (Refer Note 9.7).

5.2 Intangible assets

	2019 ($ '000)	2018 ($ '000)
GROSS CARRYING AMOUNT AT COST		
Opening balance	**22,305**	**20,869**
Additions to software	1,275	1,439
Disposals of software	–	(3)
Closing balance	**23,580**	**22,305**
ACCUMULATED AMORTISATION		
Opening balance	**(13,320)**	**(9,807)**
Amortisation expense (i)	(4,451)	(3,516)
Disposals	–	3
Closing balance	**(17,771)**	**(13,320)**
Net book value at the end of the financial year	**5,809**	**8,985**

Notes:

(i) Amortisation expense is included in the line item 'depreciation and amortisation expense' in the comprehensive operating statement.

5.2 Intangible assets (continued)

Initial recognition

Intangible assets are measured at cost less accumulated amortisation and impairment. Capitalised software costs are amortised on a straight-line basis over their useful lives of 1 to 10 years for both current and prior years.

For software intangibles, when the recognition criteria in AASB 138 *Intangible assets* are met (this criteria includes the asset having a significant future economic benefit which is reliably measured and represents development costs), internally generated intangible assets are recognised and measured at cost less accumulated amortisation and impairment.

Subsequent measurement

Intangible assets with finite useful lives are carried at cost less accumulated amortisation and accumulated impairment losses. Costs incurred subsequent to initial acquisition are capitalised when it is expected that additional future economic benefits will flow to the Authority.

The amortisation period and the amortisation method for an intangible asset with a finite useful life are reviewed at least at the end of each annual reporting period.

Impairment of intangible assets

Intangible assets with finite useful lives are tested for impairment whenever an indication of impairment is identified.

Significant intangible assets

The Authority had previously capitalised the development of its SAP Customer Relationship Management System (SAP-CRM). The asset has a $3.8 million carrying amount (2018: $7.7 million).

The system has been amortised over 7 years based on the expected useful life, reflecting a new customer relationship management platform commencing in July 2020, in line with the commencement of the *Environment Protection Amendment Act 2018*. This new platform is part of an extensive digital transformation program the Authority is currently undertaking.

5.3 Investments

	2019 ($ '000)	2018 ($ '000)
NON-CURRENT INVESTMENTS		
Managed investment fund (i)	83,442	63,174
Total non-current investments	**83,442**	**63,174**

Note:

(i) Managed investments consist of funds deposited with the Victorian Funds Management Corporation Capital Stable Fund and are classified as a financial asset. The Fund invests in a combination of asset classes which includes cash deposits, fixed term deposits and equities which are subject to movements in equity prices.

6. Other assets and liabilities

Introduction

This section sets out those assets and liabilities that arose from the Authority's operations.

Structure

6.1 Receivables

	2019 ($ '000)	2018 ($ '000)
CONTRACTUAL		
Trade debtors	688	1,444
Amounts owing from Commonwealth Government	–	125
Interest receivable	–	314
	688	**1,883**
STATUTORY		
Amounts owing from the Public Account (i)	10,110	12,128
Fines and regulatory fees	11,996	11,150
Allowance for impairment loses of statutory receivables	(7,998)	(7,580)
Amounts owing from the Department (ii)	49,608	20,431
Accrued revenue – Environment Protection Fund (iii)	11,481	10,186
GST input tax credit recoverable	1,197	692
Total receivables	**77,082**	**48,890**

Notes:

(i) The amounts recognised from Victorian Government represent funding for all commitments incurred through the Environment Protection Fund and are drawn from the Public Account as the commitments fall due.

(ii) The amounts include the Government's funding commitment for the remediation works of a commercial site. Refer Note 6.4.

(iii) Accrued revenue comprises estimated PIW levies which remained unpaid at 30 June 2019.

Contractual receivables are classified as financial instruments and as 'financial assets at amortised costs'. They are initially recognised at fair value plus any directly attributable transaction costs. The Authority holds the contractual receivables with the objective to collect the contractual cash flows and therefore subsequently measured at amortised cost using the effective interest method, less any impairment.

Statutory receivables do not arise from contracts; however, are recognised and measured similarly to contractual receivables (except for impairment) but are not classified as financial instruments for disclosure purposes.

6.1 Receivables (continued)

The Authority applies AASB 9 for initial measurement of the statutory receivables and as a result statutory receivables are initially recognised at fair value plus any directly attributable transaction cost. Amounts recognised from the Victorian Government represent funding for all commitments incurred and are drawn from the Consolidated Fund as the commitments fall due.

6.2 Payables

	2019 ($ '000)	2018 ($ '000)
CURRENT PAYABLES		
Accounts payable	2,872	3,385
Accruals	8,376	3,219
Salaries and other employee entitlements	3,109	2,557
Unearned Income	–	357
Total current payables	**14,357**	**9,518**
NON-CURRENT PAYABLES		
Trade creditors	582	944
Total non-current payables	**582**	**944**
Total payables	**14,939**	**10,462**

Payables include contractual amounts. Accounts payable represent liabilities for goods and services provided to the Authority prior to the end of the financial year that are unpaid.

6.2.1 Maturity analysis of contractual payables

	CARRYING AMOUNTS ($ '000)	NOMINAL AMOUNT ($ '000)	MATURITY DATES ($ '000)				
			LESS THAN 1 MONTH	1–3 MONTHS	3 MONTHS – 1 YEAR	1–5 YEARS	5+ YEARS
2019							
Accounts payable	3,454	3,454	2,506	4	362	582	–
Accruals	8,376	8,376	8,376	–	–	–	–
Salaries and other employee entitlements	3,109	3,109	3,109	–	–	–	–
Unearned income	–	–					
Total	**14,939**	**14,939**	**13,991**	**4**	**362**	**582**	
2018							
Accounts payable	4,329	4,329	3,070	49	266	944	–
Accruals	3,219	3,219	3,219	–	–	–	–
Salaries and other employee entitlements	2,557	2,557	2,557	–	–	–	–
Unearned income	357	357	–	357	–	–	–
Total	**10,462**	**10,462**	**8,846**	**406**	**266**	**944**	**–**

6.2.1 Maturity analysis of contractual payables (continued)

Maturity analysis is presented using the contractual undiscounted cash flows.

The carrying amounts disclosed exclude statutory amounts (for example, GST payables). The Authority intends to settle the above financial liabilities in line with its contractual obligations.

6.3 Other non-financial assets

	2019 ($ '000)	2018 ($ '000)
Prepayments	1,982	1,962
Total current other non-financial assets	**1,982**	**1,962**

Other non-financial assets include prepayments, which represent payments in advance of receipt of goods or services, or that part of expenditure made in one accounting period covering a term extending beyond that financial accounting period.

6.4 Other provisions

	2019 ($ '000)	2018 ($ '000)
CURRENT PROVISIONS		
Waste site rehabilitation works (i)	30,000	–
Site remediation and disposal of chemical stockpile (ii)	3,255	1,716
Total current provisions	**33,255**	**1,716**
NON-CURRENT PROVISIONS		
Site remediation and disposal of chemical stockpile (ii)	37	3,005
Site restoration of leasehold improvement (iii)	1,325	1,214
Total non-current provisions	**1,362**	**4,219**
Total provisions	**34,617**	**5,935**

Notes:

(i) In 2018-19, Victorian Government approved funding to enable the Authority to exercise its powers under s.62 of the *Environment Protection Act (1970)* to begin rehabilitation of a contaminated site. In accordance with the *Authority's Provisions, Contingent Liabilities and Contingent Asset Policy* and in line with AASB 137, the Authority has created a provision for site remediation works of a commercial site. The provision represents the Victorian Government's current commitment to the rehabilitation works.

(ii) The amounts disclosed are undiscounted amounts.

(iii) The amounts disclosed are discounted to present values.

Other provisions are recognised when the Authority has a present obligation, the future sacrifice of economic benefits is probable, and the amount of the provision can be measured reliably. The amount recognised as a provision, is the best estimate of the consideration required to settle the present obligation at the reporting date, taking into account the risks and uncertainties surrounding the obligation.

Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows, using a discount rate that reflects the time value of money and risks specific to the provision.

Waste site rehabilitation works

As announced on 30 April 2019, the Authority has used its powers under the *Environment Protection Act 1970* to take over management of a waste stockpile at Lara after the previous operator let the waste grow to dangerous levels. The provision represents the Victorian Governments commitment to the rehabilitation works.

6.4 Other provisions (continued)

Site remediation and disposal of chemical stockpile

The Authority holds chemical stockpiles from two legacy collection programs and is completing remediation works on a contaminated site. Details are as follows:

1) Chemicals from the ChemCollect program, a chemical collection program run from 1999 to 2002 under joint agreement between the Commonwealth and the Authority. The estimated cost of disposing of the remaining chemicals as at 30 June 2019 is $2.1 million (2018: $3.1 million).
2) The Authority continues to hold a stockpile of dangerous goods (chemicals) collected as part of a rural chemical collection program, run by the former Melbourne Metropolitan Board of Works prior to 2002. The estimated cost of disposing of these chemicals as at 30 June 2019 is $0.8 million (2018: $1.2 million).
3) The Authority has continued its work with a local council in relation to a remediation of a contaminated site. The total cost of the remaining remediation is estimated to be $0.4 million (2018: $0.4 million). Refer to contingent assets and liabilities (Note 8.1).

Site restoration of leasehold improvement

The provision for site restoration of leasehold improvement represents the present value of the future payments that the Authority is presently obligated to make in respect of make good clauses under a non-cancellable operating lease agreement. The estimate will vary if the Authority exercises its option for a further term. The unexpired term of the lease is two years.

6.4.1 Reconciliation of movements in other provisions

	WASTE SITE REHABILITATION WORKS ($ '000)	SITE REMEDIATION AND DISPOSAL OF CHEMICAL STOCKPILE ($ '000)	SITE RESTORATION OF LEASEHOLD IMPROVEMENT ($ '000)	TOTAL ($ '000)
2019				
Opening balance	**–**	**4,721**	**1,214**	**5,935**
Additional provisions recognised	30,000	–	–	30,000
Reduction arising from payments	–	(1,428)	–	(1,428)
Unwind of discount and effect of changes in the discount rate	–	–	110	110
Closing balance	**30,000**	**3,293**	**1,324**	**34,617**
2018				
Opening balance	**–**	**9,810**	**1,198**	**11,008**
Additional provisions recognised		–	–	–
Reduction arising from payments	–	(5,089)	–	(5,089)
Unwind of discount and effect of changes in the discount rate	–	–	16	16
Closing balance		**4,721**	**1,214**	**5,935**

7. Financing our operations

Introduction

This section provides information on the sources of finance utilised by the Authority during its operations, along with interest expenses (the cost of borrowings) and other information related to financing activities of the Authority.

This section includes disclosures of balances that are financial instruments (such as borrowings and cash balances). Notes 8.2 and 8.3 provide additional, specific financial instrument disclosures.

Structure

7.1 Borrowings

	2019 ($ '000)	2018 ($ '000)
CURRENT BORROWINGS		
Finance lease liabilities (i)	736	753
Total current borrowings	**736**	**753**
NON-CURRENT BORROWINGS		
Finance lease liabilities (i)	1,537	1,504
Total non-current borrowings	**1,537**	**1,504**
Total borrowings	**2,273**	**2,257**

Notes:

(i) Secured by the assets leased. Finance leases are effectively secured as the rights of the leased assets revert to the lessor in the event of a default.

Borrowings refer to interest-bearing liabilities relating to finance leases and are classified as financial instruments. The measurement basis depends on whether the Authority has categorised its interest-bearing liabilities as either 'financial liabilities designated at fair value through net result', or financial liabilities at 'amortised cost'. The classification depends on the nature and purpose of the interest-bearing liabilities. The Authority determines the classification of its interest-bearing liabilities at initial recognition.

7.1.1 Maturity analysis of borrowings

	CARRYING AMOUNTS ($ '000)	NOMINAL AMOUNT ($ '000)	MATURITY DATES ($ '000)				
			LESS THAN 1 MONTH	1–3 MONTHS	3 MONTHS – 1 YEAR	1–5 YEARS	5+ YEARS
2019							
Finance lease liabilities	2,273	2,374	139	88	570	1,577	–
Total	**2,273**	**2,374**	**139**	**88**	**570**	**1577**	**–**
2018							
Finance lease liabilities	2,257	2,369	109	127	576	1,557	–
Total	**2,257**	**2,369**	**109**	**127**	**576**	**1,557**	**–**

7.1.2 Interest expense

	2019 ($ '000)	2018 ($ '000)
Interest on finance leases	78	66
Total interest expense	**78**	**66**

Interest expense is recognised in the period in which it is incurred. Costs incurred in connection with the borrowing of funds include interest component of finance lease repayments.

7.2 Cash flow information and balances

Cash and deposits recognised on the balance sheet comprise cash on hand and cash at bank, deposits at call and those highly liquid investments (with an original maturity of three months or less), which are held for the purpose of meeting short-term cash commitments rather than for investment purposes, and readily convertible to known amounts of cash with an insignificant risk of changes in value.

Due to the state of Victoria's investment policy and government funding arrangements, government departments (including the Authority) generally do not hold a large cash reserve in their bank accounts. Cash received by the Authority from the generation of revenue is generally paid into the state's bank account, known as the Public Account.

Similarly, any Authority expenditure, including that in the form of cheques drawn by the Authority for the payment of goods and services to its trade creditors is made via the Public Account. The process is such that, the Public Account would remit to the Authority the cash required for the amount drawn on the cheques. This remittance by the Public Account occurs upon the presentation of the cheques by the Authority's suppliers or creditors.

The Treasurer approved the establishment of the Central Banking System (CBS) in October 2018. The Standing Directions 2018 require the Authority to hold deposits in the CBS.

The Authority held deposits under existing arrangements in 2018-19 until the completion of the CBS transition in April 2019.

Deposits held with CBS had a float interest rate of 1.65 per cent during the year. Deposits at call with TCV had a floating interest rate of 1.45 per cent throughout the year (2018: 1.45 per cent). Fixed-term deposits had an average interest-bearing rate of 1.93 per cent until the accounts were closed in April (2018: 1.73 per cent). Guaranteed bill deposits had an average interest-bearing rate of 2.03 per cent until the accounts were closed in April (2018: 1.76 per cent).

7.2 Cash flow information and balances (continued)

	2019 ($ '000)	2018 ($ '000)
Cash on hand	(44)	11
Deposits held	40,079	69,384
Balance as per cash flow statement	**40,035**	**69,395**

7.2.1 Reconciliation of net result to cash flow from operating activities

	2019 ($ '000)	2018 ($ '000)
Net result for the year	**(255)**	**22,077**
NON-CASH MOVEMENTS		
(Gain)/loss on sale or disposal of non-current assets	(1,889)	1,710
Depreciation and amortisation of non-current assets	7,867	6,506
Gain/(loss) on statutory receivables	1,957	1,510
MOVEMENTS IN ASSETS AND LIABILITIES		
(Increase)/decrease in receivables	(30,150)	(16,743)
(Increase)/decrease in other non-financial assets	(20)	318
Increase/(decrease) in payables	4,530	1,279
Increase/(decrease) in provisions (i)	31,333	(2,497)
Net cash flows from operating activities	**13,373**	**14,160**

Notes:

(i) During 2018-19, the Authority recognised an additional provision for site remediation works of a commercial site. Refer Note 6.4.

7.3 Trust account balances

The *Environment Protection (Amendment) Act 2006* introduced increased and differential levies on the disposal of PIW to landfill to reflect the level of hazard posed by the different categories of PIW. The Authority only receives a portion of these levies for operational purposes based on the PIW Revenue Charter. The remainder is held in a separate account within the Environment Protection Fund for the purposes of funding specific environment protection initiatives aligned with the principles of environment protection set out in sections 1B to 1L of the *Environment Protection Act 1970* and approved by the Authority's Governing Board.

7.4 Leases

A lease is a right to use an asset for an agreed period of time in exchange for payment. Leases are classified at their inception as either operating or finance leases based on the economic substance of the agreement so as to reflect the risks and rewards incidental to ownership.

Leases of property, plant and equipment are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership from the lessor to the lessee. All other leases are classified as operating leases.

7.4.1 Operating leases

The Authority has entered into a number of operating lease agreements where the lessors effectively retain the risks and benefits incidental to ownership of the leased items. Lease payments are charged to the net result over the lease term as payments made and are representative of the pattern of benefits derived from the use of the leased asset.

7.4.1 Operating leases (continued)

All incentives for the agreement of a new or renewed operating lease are recognised as an integral part of the net consideration agreed for the use of the leased asset, irrespective of the incentive's nature or form or the timing of payments. In the event that lease incentives are received to enter into operating leases, the aggregate costs of incentives are recognised as a reduction of rental expense over the lease term on a straight-line basis, unless another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

Commitments in relation to leases contracted at the reporting date but not recognised as liabilities are:

NON-CANCELLABLE OPERATING LEASE PAYABLES	2019 ($ '000)	2018 ($ '000)
Not longer than one year	5,416	3,612
Longer than one year and not longer than five years	796	7,580
Longer than five years	311	395
Non-cancellable operating lease payables	**6,523**	**11,587**

7.4.2 Finance leases

Under DTF's vehicle leasing policy, vehicles leased after 1 February 2004 are subject to finance lease arrangements, where the Authority retains the risks and benefits incidental to ownership of these leased vehicles.

At the commencement of the lease term, finance leases are initially recognised as assets and liabilities at amounts equal to the fair value of the lease asset or, if lower, the present value of the minimum lease payment, each determined at the inception of the lease. The lease asset is depreciated over the shorter of the estimated useful life of the asset or the term of the lease.

Minimum finance lease payments are apportioned between reduction of the outstanding lease liability and periodic finance expense which is calculated using the interest rate implicit in the lease and charged directly to the comprehensive operating statement. Contingent rentals associated with finance leases are recognised as an expense in the period in which they are incurred.

FINANCE LEASE LIABILITIES PAYABLE	NOTES	MINIMUM FUTURE LEASE PAYMENTS (I)		PRESENT VALUE OF MINIMUM FUTURE LEASE PAYMENTS	
		2019 ($ '000)	2018 ($ '000)	2019 ($ '000)	2018 ($ '000)
Not longer than one year		797	813	736	753
Longer than one year and not longer than five years		1,577	1,557	1,537	1,504
Minimum future lease payments		2,374	2,370	2,273	2,257
Less: future finance charges		(101	(113)		
Present value of minimum lease payments		**2,273**	**2,257**	**2,273**	**2,257**
Included in the financial statements as:					
Current finance borrowings lease liabilities	7.1		–	736	753
Non-current finance borrowings lease liabilities	7.1		–	1,537	1,504
Total finance borrowings lease liabilities			**–**	**2,273**	**2,257**

Notes:

(i) Minimum future lease payments include the aggregate of all base payments and any guaranteed residual.

7.5 Commitments for expenditure

Commitments for future expenditure include operating and capital commitments arising from contracts. These commitments are recognised below at their nominal value and inclusive of GST.

Where it is considered appropriate and provides additional relevant information to users, the net present values of significant individual projects are stated. These future expenditures cease to be disclosed as commitments once the related liabilities are recognised in the balance sheet.

7.5.1 Total commitments payable

The following commitments have not been recognised as liabilities in the financial statements:

	LESS THAN 1 YEAR ($ '000)	1-5 YEARS ($ '000)	5+ YEARS ($ '000)	TOTAL ($ '000)
2019				
Capital expenditure	272	1,366		1,638
Operating	1,484	10,049	–	11,533
Total Commitment (inclusive of GST)	1,756	11,415	–	13,171
Less GST recoverable	159	1,038		1,197
Total commitments (exclusive GST)	**1,597**	**10,377**		**11,974**
2018				
Capital	640	–	–	640
Operating	314	6,904	–	7,218
Total commitment (inclusive of GST)	954	6,904		7,858
Less GST recoverable	87	628		715
Total commitments (exclusive GST)	**867**	**6,276**		**7,143**

8. Risks, contingencies and valuation judgements

Introduction

The Authority is exposed to risk from its activities and outside factors. In addition, it is often necessary to make judgements and estimates associated with recognition and measurement of items in the financial statements.

This section sets out financial instrument specific information, (including exposures to financial risks) as well as those items that are contingent in nature or require a higher level of judgement to be applied, which for the Authority related mainly to fair value determination.

Structure

8.1 Contingent assets and contingent liabilities

Contingent assets and contingent liabilities are not recognised in the balance sheet but are disclosed and, if quantifiable, are measured at nominal value. Contingent assets and liabilities are presented inclusive of GST receivable or payable respectively.

Contingent assets are possible assets that arise from past events, whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Authority.

These are classified as either quantifiable, where potential economic benefit is known, or non-quantifiable.

There were no contingent assets for the Authority at 30 June 2019.

Contingent liabilities are:

- possible obligations that arise from past events, whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Authority; or
- present obligations that arise from past events but are not recognised because:
  - it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligations; or
  - the amount of the obligations cannot be measured with sufficient reliability.

Contingent liabilities are also classified as either quantifiable or non-quantifiable.

The Authority has the following non-quantifiable contingent liabilities:

1) The Authority is currently contesting a claim in the Supreme Court relating to the rejection of a recycling rebate of waste deposited into a landfill received from a landfill operator.

   Like any other party to civil litigation, the Authority may be required to pay damages and other party costs if the Authority is unsuccessful. In accordance with AASB 137 *Provisions, contingent liabilities and contingent assets*, the Authority has not disclosed the value of matters on the grounds that it may seriously prejudice the outcome of the claim. The Authority believes it has acted in accordance with the *Environment Protection Act 1970* and is defending the claim.

8.1 Contingent assets and contingent liabilities (continued)

2) At 30 June 2019, the Authority has a number of civil litigation matters, for which the Authority may be liable for legal costs if unsuccessful. Due to the diversity of issues associated with these matters and the opportunity for new evidence to be adduced during the court process, it is not possible to reliably quantify the financial effect of litigation and it is therefore impractical to do so.
3) The Authority has recognised a liability for works related to a contaminated site (Note 6.4). On completion of the works, the Authority may have a further unquantified obligation, dependent upon subsequent tests and community negotiation. Therefore, quantification of the financial effect, if any, cannot be reliably estimated and it is therefore impractical to do so.

8.2 Financial instruments

Introduction

The Authority is exposed to a number of financial risks including credit risk, liquidity risk, market risk (interest rate risk, foreign currency risk and equity price risk).

As a whole, the Authority's financial risk management program seeks to manage these risks and the associated volatility of its financial performance.

Financial instruments arise out of contractual agreements that give rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Due to the nature of the Authority's activities, certain financial assets and financial liabilities arise under statute rather than a contract (for example, taxes, fines and penalties). Such assets and liabilities do not meet the definition of financial instruments in AASB 132 *Financial instruments: presentation*.

From 1 July 2018, the Authority applies AASB 9 and classifies all of its financial assets based on the business model for managing the assets and the asset's contractual terms.

Categories of financial assets under AASB 9

Financial assets at amortised cost

Financial assets are measured at amortised costs if both of the following criteria are met and the assets are not designated as fair value through net result:

› the assets are held by the Authority to collect the contractual cash flow; and
› the assets' contractual terms give rise to cash flows that are solely payments of principal and interests.

These assets are initially recognised at fair value plus any directly attributable transaction costs and subsequently measured at amortised cost using the effective interest method less any impairment.

The Authority recognises the following assets in this category:

› cash and deposits; and
› receivables (excluding statutory receivables).

Financial assets at fair value through net result

Equity instruments that are held for trading as well as derivative instruments are classified as fair value through net result. Other financial assets are required to be measured at fair value through net result unless they are measured at amortised cost or fair value through other comprehensive income as explained above.

However, as an exception to those rules above, the Authority may, at initial recognition, irrevocably designate financial assets as measured at fair value through net result if doing so eliminates or significantly reduces a measurement or recognition inconsistency ('accounting mismatch') that would otherwise arise from measuring assets or liabilities or recognising the gains and losses on them on different bases.

8.2 Financial instruments (continued)

Categories of financial assets previously under AASB 139

Loans and receivables and cash are financial instrument assets with fixed and determinable payments that are not quoted on an active market. These assets and liabilities are initially recognised at fair value plus any directly attributable transaction costs. Subsequent to initial measurement, loans and receivables are measured at amortised cost using the effective interest method (and for assets, less any impairment). The Authority recognises the following assets in this category:

- cash and deposits;
- receivables (excluding statutory receivables); and
- term deposits.

Available-for-sale financial instrument assets are those designated as available-for-sale or not classified in any other category of financial instrument asset. Such assets are initially recognised at fair value. Subsequent to initial recognition, they are measured at fair value with gains and losses arising from changes in fair value, recognised in 'Other economic flows – other comprehensive income' until the investment is disposed. Movements resulting from impairment and foreign currency changes are recognised in the net result as other economic flows. On disposal, the cumulative gain or loss previously recognised in 'Other economic flows – other comprehensive income' is transferred to other economic flows in the net result. The Authority recognises investments in equities and managed investment schemes in this category.

Categories of financial liabilities under AASB 9 and previously under AASB 139

Financial assets and liabilities at fair value through net result are categorised as such at trade date, or if they are classified as held for trading or designated as such upon initial recognition. Financial instrument assets are designated at fair value through net result on the basis that the financial assets form part of a group of financial assets that are managed based on their fair values and have their performance evaluated in accordance with documented risk management and investment strategies. Financial instruments at fair value through net result are initially measured at fair value; attributable transaction costs are expensed as incurred. Subsequently, any changes in fair value are recognised in the net result as other economic flows unless the changes in fair value relate to changes in the Authority's own credit risk. In this case, the portion of the change attributable to changes in the Authority's own credit risk is recognised in other comprehensive income with no subsequent recycling to net result when the financial liability is derecognised. The Authority recognises some debt securities that are held for trading in this category and designated certain debt securities as fair value through net result in this category.

Financial liabilities at amortised cost are initially recognised on the date they are originated. They are initially measured at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, these financial instruments are measured at amortised cost with any difference between the initial recognised amount and the redemption value being recognised in profit and loss over the period of the interest-bearing liability, using the effective interest rate method. The Authority recognises the following liabilities in this category:

- payables (excluding statutory payables); and
- borrowings (including finance lease liabilities).

Derecognition of financial assets: A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is derecognised when:

- the rights to receive cash flows from the asset have expired; or
- the Authority retains the right to receive cash flows from the asset, but has assumed an obligation to pay them in full without material delay to a third party under a 'pass through' arrangement; or
- the Authority has transferred its rights to receive cash flows from the asset and either:
  - has transferred substantially all the risks and rewards of the asset; or
  - has neither transferred nor retained substantially all the risks and rewards of the asset but has transferred control of the asset.

Where the Authority has neither transferred nor retained substantially all the risks and rewards or transferred control, the asset is recognised to the extent of the Authority's continuing involvement in the asset.

8.2 Financial instruments (continued)

Derecognition of financial liabilities: A financial liability is derecognised when the obligation under the liability is discharged, cancelled or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised as an 'other economic flow' in the comprehensive operating statement.

8.2.1 Financial risk management categorisation

The carrying amounts of the Authority's contractual financial assets and financial liabilities by category are in the table below.

	CATEGORY	NOTE	$ '000
2019			
CONTRACTUAL FINANCIAL ASSETS			
Cash and cash deposits	Cash and cash deposits	7.2	40,035
Investments in managed fund	Financial asset at fair value through profit and loss	8.3	83,442
Receivables	Contractual financial assets held to maturity	6.1	688
Total contractual financial assets (i)			**124,165**
CONTRACTUAL FINANCIAL LIABILITIES			
Payables	Financial liabilities at amortised cost	6.2	14,939
Finance lease liabilities	Financial liabilities at amortised cost	7.1	2,273
Total contractual financial liabilities (ii)			**17,212**
2018			
CONTRACTUAL FINANCIAL ASSETS			
Cash and cash deposits	Cash and cash deposits	7.2	69,395
Investments in managed fund	Financial asset at fair value through profit and loss	8.3	63,174
Receivables	Contractual financial assets held to maturity	6.1	1,883
Total contractual financial assets (i)			**134,452**
CONTRACTUAL FINANCIAL LIABILITIES			
Payables	Financial liabilities at amortised cost	6.2	10,462
Finance lease liabilities	Financial liabilities at amortised cost	7.1	2,257
Total contractual financial liabilities (ii)			**12,719**

Notes:

(i) The total amount of financial assets disclosed here excludes statutory receivables (that is, amounts owing from Victorian Government and GST input tax credit recoverable).

(ii) The total amount of financial liabilities disclosed here excludes statutory payables (that is, taxes payable).

8.2.2 Net holding gain/loss on financial instruments by category

	NET HOLDING GAIN/(LOSS) ($ '000)	TOTAL INTEREST INCOME/(EXPENSE) ($ '000)	TOTAL ($ '000)
2019			
Financial assets designated at fair value through net result	268	3,762	4,030
Total contractual financial assets	**268**	**3,762**	**4,030**
2018			
Financial assets designated at fair value through net result	1,085	1,691	2,776
Total contractual financial assets	**1,085**	**1,691**	**2,776**

The net holding gains or losses disclosed above are determined as follows:

Financial assets and liabilities that are designated at fair value through net result, the net gain or loss is calculated by taking the movement in the fair value of the financial asset or liability.

8.2.3 Financial risk management objectives and policies

As a whole, the Authority's financial risk management program seeks to manage these risks and the associated volatility of its financial performance.

Details of the significant accounting policies and methods adopted, including the criteria for recognition, the basis of measurement, and the basis on which income and expenses are recognised, with respect to each class of financial asset, financial liability and equity instrument above are disclosed in Note 8.3 to the financial statements.

Credit risk

The Authority's exposure to credit risk arises from the potential default of counterparties on their contractual obligations resulting in financial loss to the Authority. The credit risk on financial assets of the Authority which have been recognised on the balance sheet, is generally the carrying amount, net of any provisions for doubtful debts.

Provision of impairment for contractual financial assets is recognised when there is objective evidence that the Authority will not be able to collect a receivable.

Contract financial assets are written off against the carrying amount when there is no reasonable expectation of recovery. Bad debt written off by mutual consent is classified as a transaction expense. Bad debt written off following a unilateral decision is recognised as other economic flows in the net result.

8.2.3 Financial risk management objectives and policies (continued)

Credit quality of financial assets

FINANCIAL ASSETS	FINANCIAL INSTITUTION (TRIPLE-A CREDIT RATING) ($ '000)	GOVERNMENT AGENCIES (TRIPLE-A CREDIT RATING) ($ '000)	OTHER AGENCY (MIN. TRIPLE-B CREDIT RATING) ($ '000)	TOTAL ($ '000)
2019				
Cash and cash deposits	40,035	–	–	40,035
Investments	–	83,442	–	83,442
Receivables:				
Contractual	–	614	74	688
Statutory (net of impairment)	–	60,915	15,479	76,394
Total financial assets	**40,035**	**144,971**	**15,553**	**200,559**
2018				
Cash and cash deposits	–	69,395	–	69,395
Investments	–	63,174	–	63,174
Receivables:				
Contractual	–	1,833	50	1,883
Statutory (net of impairment)	–	33,251	13,756	47,007
Total financial assets	**–**	**167,653**	**13,806**	**181,459**

Liquidity risk

Liquidity risk arises when the Authority is unable to meet its financial obligations as they fall due. The Authority operates under the Government's fair payments policy of settling financial obligations within 30 days and in the event of a dispute, makes payments within 30 days from the date of resolution. It also continuously manages risk through monitoring future cash flows and maturities planning to ensure adequate holding of high-quality liquid assets.

Maximum exposure to liquidity risk is the carrying amounts of financial liabilities. For disclosure of the contractual maturity analysis for the Authority's financial liabilities refer to Note 6.2.1.

Market risk

The Authority's exposures to market risk are primarily through interest rate and equity risks with only insignificant exposure to foreign currency. Objectives, policies and processes used to manage each of these risks are disclosed in the paragraphs below.

8.2.3 Financial risk management objectives and policies (continued)

Equity risk

The Authority is exposed to equity price risk through its investment in the Victorian Funds Management Corporation's Capital Stable Fund. The fund manager, on behalf of the Authority, closely monitors performance and manages equity price risk through diversification of its investment portfolio. The Authority's sensitivity to equity is detailed in the Table 'Other price risk sensitivity'.

Equity price risk sensitivity

	CARRYING AMOUNT	EQUITY PRICE	
		-15% MOVEMENT NET RESULT ($ '000)	+15% MOVEMENT NET RESULT ($ '000)
2019			
Contractual financial assets:			
Managed investments (i)	83,442	(2,500)	2,500
Total impact	**83,442**	**(2,500)**	**2,500**
2018			
Contractual financial assets:			
Managed investments (i)	63,174	(1,895)	1,895
Total impact	**63,174**	**(1,895)**	**1,895**

Notes:

(i) Managed investments include monies deposited with the Victorian Funds Management Corporation in the Capital Stable Fund. This is classified as a non-current financial asset. The Fund invests in a combination of asset classes which include cash deposits, fixed-term deposits and equities which are subject to movements in equity prices. Investment held as at 30 June 2019 is $83.4 million (2018 $63.2 million). The Authority's exposure to equity risk is approximately 20 per cent of the Capital Stable Fund portfolio mix which equates to $16.7 million (2018 $12.6 million). Sensitivities to these movements are calculated as follows:

- 2019: $16.7 million x -0.15 =-$2.5 million; and $16.7 million x 0.15 =$ 2.5 million
- 2018: $12.6 million x -0.15 =-$1.9 million; and $12.6 million x 0.15 =$ 1.9 million

Foreign currency risk

The Authority is exposed to insignificant foreign currency risk through its payables relating to purchases of supplies and consumables from overseas. This is because of a limited amount of purchases denominated in foreign currencies and a short timeframe between commitment and settlement.

Interest rate risk

Exposure to interest rate risk is insignificant and might arise primarily through the Authority's variable rate cash deposits. The Authority's exposure is insignificant due to its policy to minimise risk by mainly undertaking fixed rate investments with relatively even maturity profiles which are managed by Treasury Corporation of Victoria.

8.2.3 Financial risk management objectives and policies (continued)

Interest rate exposure of contractual financial instruments

	WEIGHTED AVERAGE INTEREST RATE %	CARRYING AMOUNT ($ '000)	INTEREST RATE EXPOSURE		
			FIXED INTEREST RATE ($ '000)	VARIABLE INTEREST RATE ($ '000)	NON-INTEREST BEARING ($ '000)
2019					
FINANCIAL ASSETS					
Cash and cash deposits	1.65%	40,035	–	–	(44)
Receivables:					
Trade debtors		688	–	–	688
Receivables from Commonwealth		–	–	–	–
Interest receivables	1.65%	–	–	–	–
Total financial assets		**40,723**	**–**	**–**	**644**
FINANCIAL LIABILITIES					
Payables		14,939			14,939
Finance lease liabilities	3.24%	2,273	2,273		
Total financial liabilities		**17,212**	**2,273**		**14,939**
2018					
FINANCIAL ASSETS					
Cash and cash deposits	1.76%	69,395	67,284	2,100	11
Receivables:					
Trade debtors		1,444	–	–	1,444
Receivables from Commonwealth		125	–	–	125
Interest receivables	1.76%	314	314	–	–
Total financial assets		**71,278**	**67,598**	**2,100**	**1,580**
FINANCIAL LIABILITIES					
Payables		10,462	–	–	10,462
Finance lease liabilities	3.37%	2,257	2,257	–	–
Total financial liabilities		**12,719**	**2,257**	**–**	**10,462**

Sensitivity disclosure analysis and assumptions

Taking into account past performance, future expectations, economic forecasts and management's knowledge and experience of the financial markets, the Authority believes the following movements are 'reasonably possible' over the next 12 months:

- a movement of 25 basis points up and down (2018: 25 basis points up and down) in market interest rates (AUD) from year-end rates of 1.45 per cent (2018: 1.45 per cent).
- the Authority's sensitivity to equity price risk has been assessed as a movement of 15 per cent up and down (2018: 15 per cent up and down) in equity prices.

8.2.3 Financial risk management objectives and policies (continued)

Interest rate risk sensitivity

2019	CARRYING AMOUNT ($ '000)	INTEREST RATE RISK			
		-50 BASIS POINTS		+ 50 BASIS POINTS	
		NET RESULT ($ '000)	EQUITY ($ '000)	NET RESULT ($ '000)	EQUITY ($ '000)
CONTRACTUAL FINANCIAL ASSETS:					
Cash and cash deposits (i)	40,035	(200)	(200)	200	200
Receivables	688				
CONTRACTUAL FINANCIAL LIABILITIES:					
Payables	14,939				
Finance lease liabilities	2,273				
Total impact	**57,935**	**(200)**	**(200)**	**200**	**200**
2018		**- 25 BASIS POINTS**		**+ 25 BASIS POINTS**	
CONTRACTUAL FINANCIAL ASSETS:					
Cash and cash deposits (i)	69,395	(5)	(5)	5	5
Receivables	1,883	–	–	–	–
CONTRACTUAL FINANCIAL LIABILITIES:					
Payables	10,462	–	–	–	–
Finance lease liabilities	2,257	–	–	–	–
Total impact	**83,997**	**(5)**	**(5)**	**5**	**5**

Notes:
(i) Sensitivities to these movements are calculated as follows:
- 2019: $40.0 million. x -.005= -$200 thousand and 40.0 million. x +005= $200 thousand
- 2018: $2.1 million x -.0025 = -$5 thousand and $2.1 million x +.0025 = $5 thousand

8.3 Fair value determination

Significant judgement: Fair value measurement of assets and liabilities

Fair value determination requires judgement and the use of assumptions. This section discloses the most significant assumptions used in determining fair values for financial reporting purposes. Changes to assumptions could have a material impact on the results and financial position of the Authority.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

The Authority determines the policies and procedures for determining fair values for both financial and non-financial assets and liabilities as required.

Fair value hierarchy

In determining fair values, a number of inputs are used. To increase consistency and comparability in the financial statements, these inputs are categorised into three levels, also known as the fair value hierarchy. The levels are as follows:

8.3 Fair value determination (continued)

- Level 1 – quoted (unadjusted) market prices in active markets for identical assets or liabilities.
- Level 2 – valuation techniques for which the lowest level input that is significant to fair value measurement is directly or indirectly observable.
- Level 3 – valuation techniques for which the lowest level input that is significant to fair value measurement is unobservable.

For the purpose of fair value disclosures, the Authority has determined classes of assets on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy as explained above.

The Authority determines whether transfers have occurred between levels in the hierarchy by re-assessing categorisation (based on the lowest input that is significant to the fair value measurement as a whole) at the end of the reporting period.

How this section is structured

For those assets and liabilities for which fair value determination is determined, the following disclosures are provided:

- carrying amount and the fair value (which would be the same for those assets measured at fair value)
- which level of the fair value hierarchy was used to determine the fair value
- in respect of those assets and liabilities subject to fair value determination using Level 3 inputs:
  - a reconciliation of the movements in fair values from the beginning of the year to the end; and
  - details of significant unobservable inputs used in the fair value determination.

This section is divided between disclosures in connection with fair value determination for financial instruments and non-financial physical assets.

Fair value determination: property, plant and equipment

	CARRYING AMOUNT	FAIR VALUE MEASUREMENT AT THE END OF THE REPORTING PERIOD USING:		
		LEVEL 1 ($ '000)	LEVEL 2 ($ '000)	LEVEL 3 ($ '000)
2019				
Building leasehold improvements	7,412	–	–	7,412
Plant and equipment	5,394	–	–	5,394
Leased motor vehicles	2,233	–	–	2,233
2018				
Building leasehold improvements	7,074	–	–	7,074
Plant and equipment	5,460	–	–	5,460
Leased motor vehicles	2,248	–	–	2,248

Building leasehold improvements

Buildings are valued using current replacement cost method and therefore considered to be Level 3 in the fair value hierarchy. Depreciation rates are reflective of expected lives.

Plant and equipment

Plant and equipment is held at fair value. When plant and equipment is specialised in use, such that it is rarely sold other than as part of a going concern, fair value is determined using current replacement cost method and therefore classified as Level 3 in the fair value hierarchy.

8.3 Fair value determination (continued)

There were no changes in valuation techniques throughout the period 30 June 2019. For all assets measured at fair value, the current use is considered the highest and best use.

Leased motor vehicles

Leased motor vehicles are valued using current replacement cost method and therefore classified as Level 3 in the fair value hierarchy. The Authority acquires new vehicles and at times disposes of them before the end of their economic life. Depreciation rates set are reflective of expected utilisation of the vehicle.

Reconciliation of Level 3 fair value movements

	BUILDINGS LEASEHOLD IMPROVEMENTS ($ '000)	PLANT AND EQUIPMENT ($ '000)	LEASED MOTOR VEHICLES ($ '000)
2019			
Opening Balance	**7,074**	**5,460**	**2,248**
Purchases	117	1,245	868
Disposals		(10)	(328)
Impairment loss charged to net result	1,840	–	–
Depreciation	(1,619)	(1,301)	(496)
Closing balance	**7,412**	**5,395**	**2,233**
2018			
Opening Balance	**9,520**	**4,556**	**1,485**
Purchases	813	2,025	1,753
Disposals	–	–	(540)
Impairment loss charged to net result	(1,840)	–	–
Depreciation	(1,419)	(1,121)	(450)
Closing balance	**7,074**	**5,460**	**2,248**

Description of significant unobservable inputs to Level 3 valuations

2019	VALUATION TECHNIQUE	SIGNIFICANT UNOBSERVABLE INPUTS
Buildings leasehold improvements	Current replacement cost	Building costs Useful life of buildings
Plant and equipment	Current replacement cost	Cost per unit Useful life of plant and equipment
Leased motor vehicles	Current replacement cost	Cost per unit Useful life of vehicles

Significant unobservable inputs have remained unchanged since June 2018.

8.3 Fair value determination (continued)

On-balance sheet

The net fair value of cash, cash deposits and non-interest bearing monetary financial assets and financial liabilities of the Authority approximates their carrying amounts.

The fair value and net fair value of financial instruments assets and liabilities is determined as follows:

- Level 1 – the fair value of financial instruments with standard terms and conditions and traded in active liquid markets is determined with reference to quoted market prices.
- Level 2 – the fair value is determined using inputs other than quoted prices that are observable for the financial asset or liability, either directly or indirectly.
- Level 3 – the fair value in accordance with generally accepted pricing models based on discounted cash flow analysis using unobservable market inputs.

The Authority considers the carrying amount of financial assets and liabilities recorded in the financial statements to be a fair approximation of their fair value, because of the short-term nature of the financial instruments and the expectation that they will be paid in full.

Financial assets measured at fair value

	CARRYING AMOUNT	FAIR VALUE MEASUREMENT AT THE END OF THE REPORTING PERIOD USING:		
		LEVEL 1 ($ '000)	LEVEL 2 ($ '000)	LEVEL 3 ($ '000)
2019				
CONTRACTUAL FINANCIAL ASSETS				
Managed investments	83,442		83,442	
Total	**83,442**		**83,442**	
2018				
CONTRACTUAL FINANCIAL ASSETS				
Managed investments	63,174	–	63,174	–
Total	**63,174**	**–**	**63,174**	–

There have been no transfers between levels during the period.

The fair value of the financial assets is included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced liquidation sale.

Managed investment scheme

The Authority invests in a managed investment fund (Capital Stable Fund) with the Victorian Funds Management Corporation. In measuring fair value, the fund manager considers the valuation techniques and inputs used in valuing these funds as part of its due diligence prior to investment, to ensure they are reasonable and appropriate and therefore the net asset value (NAV) of the funds may be used as an input into measuring their fair value. In measuring this fair value, the NAV of the fund is adjusted, as necessary, to reflect restrictions and redemptions, future commitments and other specific factors of the fund.

Off-balance sheet

The Authority has accepted financial assurances (bank guarantees) that it may draw down on if required. These have a monetary face value which approximates their carrying value. The value of these financial assurances is $259.70 million (2018: $206.10 million). The Authority has potential financial liabilities which may arise from certain contingencies disclosed in Note 8.1.

22 Notes to the Financial Statement

For the financial year ended 30 June 2019 continued

9. Other disclosures

Introduction

This section includes additional material disclosures required by accounting standards, for the understanding of this financial report.

Structure

9.1 Responsible Persons

In accordance with the Ministerial Directions issued by the Assistant Treasurer under the *Financial Management Act 1994*, the following disclosures are made regarding Responsible Persons for the reporting period.

Names

The persons who held the positions of Minister, Responsible Body and Accountable Officer in the Authority are as follows:

Minister for Energy, Environment and Climate Change:

The Hon. Lily D'Ambrosio MP
(1 July 2018 to 30 June 2019)

Responsible Body:

Governing Board comprised:

Ms Cheryl Batagol PSM- Chairperson:
(1 July 2018 to 30 June 2019)

Mr Greg Tweedly – Deputy Chairperson
(1 July 2018 to 30 June 2019)

Professor Rebekah Brown
(1 July 2018 to 30 June 2019)

Ms Monique Conheady
(1 July 2018 to 30 June 2019)

Mr Graeme Ford
(1 July 2018 to 30 June 2019)

Mr Ross Pilling
(1 July 2018 to 30 June 2019)

Professor Joan Ozanne-Smith AO
(1 July 2018 to 30 June 2019)

Ms Debra Russell
(1 July 2018 to 24 June 2019)*

* Date of Board member's resignation

9.1 Responsible Persons (continued)

Accountable Officers:

Chief Executive Officer

Nial Finegan
(1 July to 2 September 2018)

Dr Cathy Wilkinson
(3 September 2018 to 30 June 2019)

On 1 July 2018, the *Environment Protection Act 2017* became effective and transitioned the Authority from an Administrative Office of the Department to an Independent Statutory Authority, operating under a new governance structure consisting of a Governing Board as the Responsible Body.

Remuneration

Remuneration received or receivable by the Accountable Officer's (Chief Executive Officer) in connection with the management of the Authority during the reporting period was in the range: $360,000-$370,000 (2018: $320,000-$330,000).

Total remuneration received or due and receivable by the Governing Board from the Authority was in the range of $330,000-$340,000 (no comparative as Governing Board commenced 1 July 2018). The ranges of individual Governing Board member remuneration are outlined below.

REMUNERATION	2019
$0 – $9,999	1
$10,000 – $19,999	–
$20,000 – $29,999	–
$30,000 – $39,999	1
$40,000 – $49,999	5
$50,000 – $59,999	–
$60,000 – $69,999	–
$70,000 – $79,999	–
$80,000 – $89,999	1
Total number of Board Members	**8**

9.2 Remuneration of executives

The number of executive officers, other than the accountable officer, and their total remuneration during the reporting period are shown in the table below. Total annualised employee equivalents provide a measure of full time equivalent executive officers over the reporting period.

Remuneration comprises employee benefits in all forms of consideration paid, payable or provided by the Authority, or on behalf of the Authority, in exchange for services rendered, and is disclosed in the following categories.

Short-term employee benefits include amounts such as wages, salaries, annual leave or sick leave that are usually paid or payable on a regular basis, as well as non-monetary benefits such as allowances and free or subsidised goods or services.

Post-employment benefits include pensions and other retirement benefits paid or payable on a discrete basis when employment has ceased.

Other long-term benefits include long service leave, other long-service benefit or deferred compensation.

9.2 Remuneration of executives (continued)

REMUNERATION	2019 ($ '000)	2018 ($ '000)
Salaries and other short-term employee benefits	3,148	2,094
Post-employment benefits	270	184
Other long-term employment benefits	79	50
Total remuneration	**3,497**	**2,328**
Total number of executives (i)	**18**	**11**
Total annualised employee equivalents (ii)	**14.5**	**9.3**

Notes:

(i) This includes six Executive Directors reporting directly to the Chief Executive Officer, which is consistent with 2017-18. The increase relates to additional executive level positions to support the organisational requirements of the 'Bringing our Environment Protection Authority into the modern era' initiative, of which four executive level positions are leading the Authority's transformation program.

(ii) Annualised employee equivalent is based on paid working hours of 38 ordinary hours per week over the 52 weeks for a reporting period.

9.3 Related parties

The Authority is a wholly owned and controlled entity of the state of Victoria.

Related parties of the Authority include:

- all key management personnel and their close family members and personal business interests (controlled entities, joint ventures and estates they have significant influence over)
- all cabinet ministers and their close family members
- all departments and public sector entities that are controlled and consolidated into the whole-of-state consolidated financial statements.

All related party transactions have been entered into on an arm's length basis.

Key management personnel of the Authority include members of the Governing Board, the Chief Executive Officer and members of the Executive Leadership Team.

REMUNERATION	2019 ($ '000)	2018 ($ '000)
Salaries and other short-term employee benefits	2,064	2,103
Post-employment benefits	158	177
Other long-term employment benefits	52	44
Total (i)	**2,274**	**2,324**

Notes:

(i) 2017-18 comparative has been restated to remove executive positions not in key management personnel roles as part of the Executive Leadership Team.

Transactions with key management personnel and other related parties

Given the breadth and depth of Victorian Government activities, related parties transact with the Victorian public sector in a manner consistent with other members of the public; for example, stamp duty and other government fees and charges. Further employment of processes within the Victorian public sector occur on terms and conditions consistent with the *Public Administration Act 2004* and Codes of Conduct and Standards issued by the Victorian Public Sector Commission. Procurement processes occur on terms and conditions consistent with the Victorian Government Purchasing Board requirements.

Outside of normal citizen type transactions with the Authority, there were no related party transactions that involved key management personnel and their close family members that have been considered material for disclosure. No provision has been required, nor any expense recognised, for impairment of receivables from related parties.

9.3 Related parties (continued)

In this context, transactions are only disclosed when they are considered necessary to draw attention to the possibility that the Authority's financial position and net result may have been affected by the existence of related parties, and by transactions and outstanding balances, including commitments, with such parties.

Significant transactions with government-related parties

During the year, the Authority had the following Victorian government-related entity transactions in respect of its controlled outputs:

	2019 ($ '000)	2018 ($ '000)
RECEIPTS		
Amounts recognised as income in the comprehensive operating statement. Grants from the Department and reform funding for the operations of the Authority	86,154	82,543
Amounts transferred during the year and recognised as a capital contribution in the balance sheet.	–	–
	86,154	**82,543**
PAYMENTS		
Amounts recognised as expenditure in the comprehensive operating statement. Specific purpose grants paid to Victorian Government entities	5,342	2,292
	5,342	**2,292**

The Authority administers or manages other activities on behalf of the state (Note 4.2). During the year, the Authority had the following administered transactions with government-related entities: $238.14 million (2018: $224.73 million) collected and passed onto the Department from M&I Landfill levy. In addition, the Authority made payments of $17.63 million (2018: $15.62million) into the consolidated fund for other administered (non-controlled) items.

9.4 Remuneration of auditors

	2019 ($ '000)	2018 ($ '000)
VICTORIAN AUDITOR-GENERAL'S OFFICE		
Audit or review of the financial statements	58	57
Total remuneration of auditors	**58**	**57**

9.5 Non-financial assets classified as held-for-sale

	2019 ($ '000)	2018 ($ '000)
Leased vehicles held-for-sale (i) – opening balance	–	57
Assets identified for disposal during the year	26	–
Asset disposals	–	(57)
Total non-financial assets classified as held-for-sale	**26**	**–**

Notes:

(i) Leased vehicles held-for-sale represent motor vehicles identified for immediate disposal in their current condition through the VicFleet disposal process. It is anticipated that these disposals will be completed within the next 12 months.

9.5 Non-financial assets classified as held-for-sale (continued)

Non-financial assets classified as held-for-sale are measured at the lower of the carrying amount and fair value less costs to sell and are not subject to depreciation.

Non-financial assets, disposal groups and related liabilities are treated as current and classified as held-for-sale if their carrying amount will be recovered through a sale transaction rather than through continuing use.

This condition is regarded as met only when the sale is highly probable and the asset's sale is expected to be completed within 12 months from the date of classification.

9.6 Reserves

	2019 ($ '000)	2018 ($ '000)
PHYSICAL ASSET REVALUATION SURPLUS (I)		
Balance at beginning of financial year	3,683	3,683
Balance at end of financial year	**3,683**	**3,683**

Notes:
(i) The physical assets revaluation surplus arises on the revaluation of building leasehold improvements.

9.7 Other economic flows included in net result

	2019 ($ '000)	2018 ($ '000)
(A) NET GAIN/(LOSS) ON NON-FINANCIAL ASSETS		
Reversal/(Impairment) of property, plant and equipment	1,840	(1,840)
Net gain/(loss) on disposal of property, plant and equipment	49	129
Total net gain/(loss) on non-financial assets	**1,889**	**(1,711)**
(B) NET GAIN/(LOSS) ON STATUTORY RECEIVABLES		
Impairment of statutory receivables	(1,957)	(1,510)
Total net gain/(loss) on statutory receivables	**(1,957)**	**(1,510)**
(C) NET GAIN/(LOSS) ON FINANCIAL INSTRUMENTS		
Net gain/loss on financial instruments	268	1,085
Total net gain/(loss) on financial instruments	**268**	**1,085**
(D) OTHER GAINS/(LOSSES) FROM OTHER ECONOMIC FLOWS		
Net gain/(loss) arising from revaluation of long service leave liability (i)	78	10
Unwinding of provisions	(110)	(16)
Total other gains/(losses) from other economic flows	**(32)**	**(6)**

Notes:
(i) Revaluation gain/(loss) due to changes in bond rate.

9.7 Other economic flows included in net result (continued)

Other economic flows are changes in the volume or value of an asset or liability that do not result from transactions.

Net gain/(loss) on non-financial assets and liabilities includes realised and unrealised gains and losses as follows:

Revaluation gains/(losses) of non-current physical assets

Non-current physical assets are measured at fair value on a cyclical basis, in accordance with the Financial Reporting Directions issued by the Assistant Treasurer. A full revaluation normally occurs every five years, but may occur more frequently if fair value assessments indicate material changes in values. The majority of non-current assets held by the Authority are 'fit-out' leasehold improvements to buildings. The depreciated cost of leasehold improvements is an acceptable approximation of fair value.

Net revaluation increases (where the carrying amount of a class of assets is increased as a result of a revaluation) are recognised in other comprehensive income and accumulated in equity under the revaluation surplus, except that the net revaluation increase shall be recognised in the net result to the extent that it reverses a net revaluation decrease in respect of the same class of property, plant and equipment previously recognised as an expense (other economic flows) in the net result.

Net revaluation decreases are recognised immediately as expenses (other economic flows) in the net result, except that the net revaluation decrease shall be recognised in other comprehensive income to the extent that a credit balance exists in the revaluation surplus in respect of the same class of property, plant and equipment. The net revaluation decrease recognised in other comprehensive income reduces the amount accumulated in equity under revaluation surplus.

Revaluation increases and decreases relating to individual assets within a class of property, plant and equipment, are offset against one another within that class but are not offset in respect of assets in different classes. Any revaluation surplus is not normally transferred to accumulated funds on de-recognition of the relevant asset.

Disposal of non-financial assets

Any gain or loss on the sale of non-financial assets is recognised at the date that control of the asset is passed to the buyer and is determined after deducting from the proceeds, the carrying value of the asset at that time.

Other gains/(losses) from other economic flows

Includes the gains or losses from the revaluation of present value of the long service leave liability due to changes in the bond interest rates.

9.8 Subsequent events

The Authority had no material events that occurred after 30 June 2019.

9.9 Ex gratia expenses

The Authority wrote-off a number of litter fines during the course of the year in accordance with its Litter Fine Write-off Policy. The total amount of write-offs for the year was $1.5 million (2018: $2.1 million).

9.10 Changes in accounting policies

The Authority has elected to apply the limited exemption in AASB 9 paragraph 7.2.15 relating to transition for classification and measurement and impairment, and accordingly has not restated comparative periods in the year of initial application.

On initial application of AASB 9 on 1 July 2018, the Authority's management has assessed for all financial assets based on the Department's business models for managing the assets. The following are the changes in the classification of the Authority's financial assets:

› Contractual receivables previously classified as other loans and receivables under AASB 139 are now reclassified as financial assets at amortised cost under AASB 9. No adjustment was required to be recognised in opening retained earnings for the period.

9.11 Australian Accounting Standards issued that are not yet effective

Certain new Australian Accounting Standards have been published that are not mandatory for the 30 June 2019 reporting period. DTF assesses the impact of these new standards and advises the Authority of their applicability and early adoption where applicable.

Leases

AASB 16 Leases replaces AASB 117 Leases, AASB Interpretation 4 Determining whether an Arrangement contains a Lease, AASB Interpretation 115 Operating Leases-Incentives and AASB Interpretation 127 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.

AASB 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases on the balance sheet by recording a right of use (RoU) asset and a lease liability except for leases that are shorter than 12 months and leases where the underlying asset is of low value (deemed to be below $10,000).

AASB 16 also requires the lessees to RoU asset and remeasure the lease liability upon the occurrence of certain events (e.g. a change in the lease term, a change in future lease payments resulting from a change in an index or rate used to determine those payments). The amount of the remeasurement of the lease liability will generally be recognised as an adjustment to the RoU asset.

Lessor accounting under AASB 16 is substantially unchanged from AASB 117. Lessors will continue to classify all leases using the same classification principle as in AASB 117 and distinguish between two types of leases: operating and finance leases.

The Authority will apply the standard using a modified retrospective approach with the cumulative effect of initial application recognised as an adjustment to the opening balance of accumulated surplus at 1 July 2019, with no restatement of comparative information.

In addition, AASB 2018-8 – Amendments to Australian Accounting Standards – Right-of-Use Assets (RoU) of Not-for-Profit Entities allows a temporary option for not-for-profit entities to not measure RoU assets at initial recognition at fair value in respect of leases that have significantly below-market terms, since further guidance is expected to be developed to assist not-for-profit entities in measuring RoU assets at fair value. The Standard requires an entity that elects to apply the option (i.e. measures a class or classes of such RoU assets at cost rather than fair value) to include additional disclosures. The Authority intends to choose the temporary relief to value the RoU asset at the present value of the payments required (at cost).

The Authority has performed a detailed impact assessment of AASB 16 and the potential impact in the initial year of application has been estimated as follows:

Impact on Balance Sheet:

› increase in RoU ($39.846 million)

› increase in lease liability ($39.846 million)

9.11 Australian Accounting Standards issued that are not yet effective (continued)

Impact on Comprehensive Operating Statement:

- increase in related interest ($1.023 million) calculated using effective interest method
- decrease in rental expense ($5.381 million)
- increase in related depreciation ($5.584 million)

The table below highlights other applicable AASs that are issued but not effective for the 2018-19 reporting period in accordance with paragraph 30 of AASB 108 *Accounting policies, changes in accounting estimate and errors*.

STANDARD/ INTERPRETATION	SUMMARY	APPLICABLE FOR ANNUAL REPORTING PERIODS BEGINNING ON	IMPACT ON THE AUTHORITY'S FINANCIAL STATEMENTS
AASB 1059 Service Concession Arrangements: Grantor	This standard prescribes the accounting treatment of public private partnership (PPP) arrangements involving a private sector operator providing public services related to a service concession asset on behalf of the State, for a specified period of time. For social infrastructure PPP arrangements, this would result in an earlier recognition of financial liabilities progressively over the construction period rather than at completion date. For economic infrastructure PPP arrangements that were previously not on balance sheet, the standard will require recognition of these arrangements on balance sheet.	1 January 2020[1]	The assessment has indicated that there will be no significant impact for the Authority.
AASB 2018-5 Amendments to Australian Accounting Standards – Deferral of AASB 1059	This standard defers the mandatory effective date of AASB 1059 from 1 January 2019 to 1 January 2020	1 January 2019	The assessment has indicated that there will be no significant impact for the Authority.
AASB 15 Revenue from Contracts with Customers	The core principle of AASB 15 requires an entity to recognise revenue when the entity satisfies a performance obligation by transferring a promised good or service to a customer. Note that amending standard AASB 2015-8 Amendments to Australian Accounting Standards – Effective Date of AASB 15 has deferred the effective date of AASB 15 to annual reporting periods beginning on or after 1 January 2018, instead of 1 January 2017.	1 January 2019	The changes in revenue recognition requirements in AASB 15 may result in changes to the timing and amount of revenue recorded in the financial statements. The standard will also require additional disclosures on services revenue and contract modifications. The assessment has indicated that there will be no significant impact for the Authority.

1. The Authority intends to early adopt AASB 1059 in line with the original adoption date of 1 January 2019.

9.11 Australian Accounting Standards issued that are not yet effective (continued)

STANDARD/ INTERPRETATION	SUMMARY	APPLICABLE FOR ANNUAL REPORTING PERIODS BEGINNING ON	IMPACT ON THE AUTHORITY'S FINANCIAL STATEMENTS
AASB 2016-8 Amendments to Australian Accounting Standards – Australian Implementation Guidance for Not-for-Profit Entities	This standard amends AASB 9 and AASB 15 to include requirements and implementation guidance to assist not-for-profit entities in applying the respective standards to particular transactions and events. The amendments: • require non-contractual receivable arising from statutory requirements (i.e. taxes, rates and fines) to be initially measured and recognised in accordance with AASB 9 as if those receivables are financial instruments; and clarifies circumstances when a contract with a customer is within the scope of AASB 15.	1 January 2019	The assessment has indicated that there will be no significant impact for the Authority.
AASB 2018-4 Amendments to Australian Accounting Standards – Australian Implementation Guidance for Not-for-Profit Public-Sector Licensors	AASB 2018-4 provides the following guidance: • matters to consider in distinguishing between a tax and a licence, with all taxes being accounted for under AASB 1058; • IP licences are to be accounted for under AASB 15; and • non-IP, such as casino licences, are to be accounted for in accordance with the principles of AASB 15, after first having determined whether any part of the arrangement should be accounted for as a lease under AASB 16.	1 January 2019	The assessment has indicated that there will be no significant impact for the Authority.
AASB 1058 Income of Not-for-Profit Entities	This standard will replace AASB 1004 Contributions and establishes principles for transactions that are not within the scope of AASB 15, where the consideration to acquire an asset is significantly less than fair value to enable not-for-profit entities to further their objectives. The restructure of administrative arrangement will remain under AASB 1004.	1 January 2019	The assessment has indicated that there will be no significant impact for the Authority.

9.11 Australian Accounting Standards issued that are not yet effective (continued)

STANDARD/ INTERPRETATION	SUMMARY	APPLICABLE FOR ANNUAL REPORTING PERIODS BEGINNING ON	IMPACT ON THE AUTHORITY'S FINANCIAL STATEMENTS
AASB 17 Insurance Contracts	The new Australian standard eliminates inconsistencies and weaknesses in existing practices by providing a single principle-based framework to account for all types of insurance contracts, including reissuance contract that an insurer holds. It also provides requirements for presentation and disclosure to enhance comparability between entities. This standard does not currently apply to not-for-profit public sector entities. The AASB is undertaking further outreach to determine the applicability of this standard to the not-for-profit public sector.	1 January 2021	The Standard does not apply to not-for -profit public sector entities.
AASB 2018-6 Amendments to Australian Accounting Standards – Definition of a Business	This standard amends AASB 3 Business Combinations to clarify the definition of a business, assisting entities to determine whether a transaction should be accounted for as a business combination or as an asset acquisition. The amendments: • clarify that to be considered a business, an acquired set of activities and assets must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs; • remove the assessment of whether market participants are capable of replacing any missing inputs or processes and continuing to produce outputs; • add guidance and illustrative examples to help entities assess whether a substantive process has been acquired; • narrow the definitions of a business and of outputs by focusing on goods and services provided to customers and by removing the reference to an ability to reduce costs; and • add an optional concentration test that permits a simplified assessment of whether an acquired set of activities and assets is not a business.	1 January 2020	The assessment has indicated that there will be no significant impact for the Authority.

9.11 Australian Accounting Standards issued that are not yet effective (continued)

STANDARD/ INTERPRETATION	SUMMARY	APPLICABLE FOR ANNUAL REPORTING PERIODS BEGINNING ON	IMPACT ON THE AUTHORITY'S FINANCIAL STATEMENTS
AASB 2018-7 Amendments to Australian Accounting Standards – Definition of Material	This standard amends AASB 101 Presentation of Financial Statements and AASB 108 Accounting Policies, Changes in Accounting Estimates and Errors. The amendments refine the definition of material in AASB 10 Events after the Reporting Period, include some supporting requirements in AASB 101 in the definition to give it more prominence and clarify the explanation accompanying the definition of material. The amendments also clarify the definition of material and its application by improving the wording and aligning the definition across AASB standards and other publications.	1 January 2020	This standard does not apply to the not-for-profit public sector entities.

9.12 Glossary of technical terms

The following is a summary of the major technical terms used in this report:

Comprehensive result

Total comprehensive result is the change in equity for the period other than changes arising from transactions with owners. It is the aggregate of net result and other non-owner changes in equity.

Commitments

Commitments include those operating, capital and other outsourcing commitments arising from non-cancellable contractual or statutory sources.

Depreciation

Depreciation is an expense that arises from the consumption through wear or time of a produced physical or intangible asset. This expense is classified as a 'transaction' and so reduces the 'net result from transactions'.

Employee benefits expenses

Employee benefits expenses include all costs related to employment including wages and salaries, leave entitlements, redundancy payments and superannuation contributions.

Financial asset

A financial asset is any asset that is:

(a) cash;

(b) an equity instrument of another entity;

9.12 Glossary of technical terms (continued)

(c) a contractual or statutory right:

  (i) to receive cash or another financial asset from another entity; or

  (ii) to exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the entity; or

(d) a contract that will or may be settled in the entity's own equity instruments and is:

  (i) a non-derivative for which the entity is or may be obliged to receive a variable number of the entity's own equity instruments; or

  (ii) a derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments.

Financial instrument

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Financial assets or liabilities that are not contractual (such as statutory receivables or payables that arise as a result of statutory requirements imposed by governments) are not financial instruments.

Financial liability

A financial liability is any liability that is:

(a) a contractual or statutory obligation:

  (i) to deliver cash or another financial asset to another entity; or

  (ii) to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the entity.

Financial statements

A complete set of financial statements comprises:

(a) a comprehensive operating statement for the period

(b) a balance sheet as at the end of the period

(c) a statement of changes in equity for the period

(d) a statement of cash flow for the period

(e) notes, comprising a summary of significant accounting policies and other explanatory information

(f) comparative information in respect of the preceding period as specified in paragraphs 38 of AASB 101 *Presentation of financial statements*

(g) a balance sheet as at the beginning of the preceding period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statement, or when it reclassifies items in its financial statements in accordance with paragraph 41 of AASB 101.

Grants and other transfers

Transactions in which one unit provides goods, services, assets (or extinguishes a liability) or labour to another unit without receiving approximately equal value in return. Grants can either be operating or capital in nature.

While grants to governments may result in the provision of some goods or services to the transferor, they do not give the transferor a claim to receive directly benefits of approximately equal value. For this reason, grants are referred to by the AASB as involuntary transfers and are termed non-reciprocal transfers.

Receipt and sacrifice of approximately equal value may occur, but only by coincidence. For example, governments are not obliged to provide commensurate benefits, in the form of goods or services, to particular taxpayers in return for their taxes.

9.12 Glossary of technical terms (continued)

Grants can be paid as general-purpose grants which refer to grants that are not subject to conditions regarding their use. Alternatively, they may be paid as specific purpose grants which are paid for a particular purpose and/or have conditions attached regarding their use.

Intangible assets

Intangible assets represent identifiable non-monetary assets without physical substance.

Interest expense

Costs incurred in connection with the borrowing of funds include interest on bank overdrafts and short-term and long-term borrowings, amortisation of discounts or premiums relating to borrowings, interest component of finance lease repayments, and the increase in financial liabilities and non-employee provisions due to the unwinding of discounts to reflect the passage of time.

Interest income

Interest income includes unwinding over time of discounts on financial assets and interest received on bank term deposits and other investments.

Net result

Net result is a measure of financial performance of the operations for the period. It is the net result of items of revenue, gains and expenses (including losses) recognised for the period, excluding those that are classified as other non-owner changes in equity.

Net result from transactions (net operating balance)

Net result from transactions or net operating balance is a key fiscal aggregate and is income from transactions minus expenses from transactions. It is a summary measure of the ongoing sustainability of operations. It excludes gains and losses resulting from changes in price levels and other changes in the volume of assets. It is the component of the change in net worth that is due to transactions and can be attributed directly to government policies.

Non-financial assets

Non-financial assets are all assets that are not 'financial assets'. It may include land, buildings infrastructure, plant and equipment and intangible assets.

Other economic flows

Other economic flows are changes in the volume or value of an asset or liability that do not result from transactions. These include gains and losses from disposals, revaluations and impairments of non-current physical and intangible assets; actuarial gains and losses arising from defined benefit superannuation plans; fair value changes of financial instruments and agricultural assets; and depletion of natural assets (non-produced) from their use or removal. In simple terms, other economic flows are changes arising from market re-measurements.

Payables

Includes short and long-term trade debt, trade creditors, grants and interest payable.

Receivables

Includes amounts owing from short- and long-term trade credit, accounts receivable, accrued investment income, grants, taxes and interest receivable.

9.12 Glossary of technical terms (continued)

Sales of goods and services

Refers to revenue from the direct provision of goods and services and includes fees and charges for services rendered, sales of goods and services, fees from regulatory services and work done as an agent for private enterprises. User charges include revenue from the sale of goods and services revenue.

Supplies and services

Supplies and services generally represent cost of goods sold and the day-to-day running costs, including maintenance costs, incurred in the normal operations of the Authority.

Transactions

Transactions are those economic flows that are considered to arise as a result of policy decisions, usually an interaction between two entities by mutual agreement. They also include flows within an entity such as depreciation where the owner is simultaneously acting as the owner of the depreciating asset and as the consumer of the service provided by the asset. Taxation is regarded as mutually agreed interactions between the government and taxpayers.

Transactions can be in kind (for example, assets provided/given free of charge or for nominal consideration) or where the final consideration is cash. In simple terms, transactions arise from the policy decisions of the government.

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