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Letter of Transmittal

12 October 2020

Hon Roger Jaensch MP
Parliament House
Hobart
Tasmania 7000

Dear Minister

It is with great pleasure that I present you with the Annual Report of the Environment Protection Authority for the period 1 July 2019 to 30 June 2020.

This report has been prepared in accordance with the requirements of Section 21A of the *Environmental Management and Pollution Control Act 1994*.

Yours sincerely



Warren Jones
Chairperson
Board of the Environment Protection Authority



Wes Ford
Director
Environment Protection Authority

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The Year in Review

Chair's Foreword

During the first half of this year the Board completed the implementation of the 'Review of Administrative Processes in the Assessment of Level 2 and Called-in Activities' with the aim of streamlining and simplifying the assessment process for activities assessed by the Board. In July the Board approved a simplified set of guidelines for the preparation of Environmental Effects Reports for small and low risk quarries and extractive pits, and later in the year EPA officers held information sessions with local government and consultants to explain the main changes in the assessment process. The Board is monitoring the impact of the reforms which are intended to result in shorter assessment timeframes without compromising the quality of assessments.

The Board completed the assessment of one wind farm in 2020 (UPC's Jim's Plain Renewable Energy Park) and three others are at various stages in the assessment process. While renewable energy has obvious environmental benefits and contributes to sustainable development, it also has environmental effects that must be taken into account and mitigated or avoided. A significant impact of wind farms in Tasmania has been the collision risk for birds and, in particular, wedge-tailed eagles and white-bellied sea eagles.

During the year the Board was pleased to see that two current wind farm operators are installing new technology to reduce collision risk by detecting eagles in flight and automatically shutting down turbines in the flight path. We are looking forward to seeing how effective these technologies are in reducing collisions. The Board also received a presentation on a project to gather better information on the movements and behaviour of eagles around wind farms, and believes this research is an important step towards enabling a better understanding of the likely effects of future wind-farms on eagles. Together, these initiatives hold the key to enabling a more strategic approach to wind farm development that does not compromise the long-term future of eagles in Tasmania.

The Board was able to meet remotely during the COVID-19 pandemic lockdown but had to postpone a strategic issues workshop until July. The main impact of the pandemic on the Board was through the reduced capacity within EPA Tasmania which the Board relies on to prepare assessments and other items for the Board's consideration. Like all other workplaces EPA Tasmania was affected directly through the requirement for staff to work from home and manage home schooling but also through the need to provide resources to assist the Government's pandemic response.

As the terms of the current Board members expire at the end of 2020 we have carried out a review of the current Board's operation and performance. A resounding and unanimous finding was that members considered that the officers of EPA Tasmania do an exceptional job, preparing work that is technically sound and of high quality, and presenting complex matters well. On behalf of all Board members I would like to acknowledge the hard work and professionalism of the Director and EPA Tasmania officers and thank them for their support.



Warren Jones
Chairperson
Board of the Environment Protection Authority

The Year in Review

Director's Overview

Together with the Chair of the EPA Board, I am pleased to present the 2019-20 EPA Annual Report, which includes the work of EPA Tasmania, the Division of the Department of Primary Industries, Parks, Water and Environment (DPIPWE) that supports the Environment Protection Authority (EPA). The year has been one marked by change and the need for adaptive management.

It began with the relocation of EPA staff to new office accommodation in the Lands Building, Hobart, involving the reconfiguration of staff from two floors to a single floor. This move, together with the new office fit-out has been positive, delivering a range of benefits for EPA management and staff.

As with other areas of the Tasmanian Public Service, the EPA has been significantly affected by the COVID-19 outbreak. A significant number of EPA staff have received specialist training in emergency management, providing a valuable resource of trained responders during emergency situations such as the pandemic. This capacity was called upon by the Agency right at the start of the pandemic response, and it was pleasing to see EPA staff make themselves available and step into essential response roles.

It was also pleasing how quickly EPA staff implemented the Agency's COVID-19 response measures, adopting new technologies for remote communications and adapting to working from home. The EPA was also quick to acknowledge the potential impact of COVID-19 on its regulated premises. Restrictions on cash flows and access to environmental consultants were identified as a concern, and support was given by the EPA to provide appropriate relief from permit conditions where appropriate.

Despite the disruptions due to moving office and the COVID-19 pandemic, EPA staff continued to provide for the assessment, regulation and monitoring of potential environmental impacts across a range of industries over the year. In addition, the EPA continued to support the Government's initiatives in waste management, focusing on the development of a policy framework to support export bans on used tyres, plastics, glass and paper waste; and planning for the introduction of a Container Refund Scheme and Waste Levy. Waste issues, particularly the National Waste Agenda, were also the key topics discussed at the Eleventh Heads of EPAs two-day meeting hosted by the Tasmanian EPA in Hobart in October 2019.

The following is a brief summary of some of the key achievements and activities undertaken by the EPA in 2019-20. Further information is provided in various sections of the Report.

Assessments

The EPA completed 12 assessments compared to 26 in 2019-20, and 54 remained in progress at the year's end compared to 44 at the end of last year. The reduced number of assessments completed this year is due to the impact on staffing from COVID-19, as well as the size and complexity of several of the completed assessments. A simplified set of guidelines for small and low risk quarries and extractive pits was finalised and information sessions were held for local council officers and consultants to explain the main changes.

Regulation

The EPA regulated a total of 542 activities in the past financial year, consisting of 367 Level 2 industrial activities, 80 wastewater treatment facilities, 30 waste management activities, 20 contaminated sites, and 65 fish farming activities. The EPA's regulatory staff issued 46 Environment Protection Notices (EPNs), undertook 38 Compliance Audits and conducted 103 site inspections of these industrial premises during the year.

Salmon regulation

The EPA regulated 65 salmon farming activities, consisting of 44 marine farms, 20 inland fish farms and one reverse osmosis water plant supporting marine finfish farming activities. Environmental Licences (EL) have now been issued for all inland and marine finfish farming leases under EMPCA, and progressive improvements have been made to the environmental management of inland fish farms with the upgrade of EL conditions. Development of a new Environmental Standard for the management of marine finfish farming in Tasmania commenced following a review of environmental regulation in overseas jurisdictions.

Wastewater treatment and reuse

The latest annual data on wastewater from the 2018-19 State of the Industry Report shows that the increasing trend of wastewater reuse in Tasmania has continued. Of the estimated total volume of treated effluent (50,588ML), approximately 11.5 percent (5,700ML) was reused compared with 10.7 percent in 2017-18; and of the remainder, approximately 52 percent (25,594ML) was discharged into estuarine waters, 25 percent (12,182ML) into coastal waters and 12 percent (6,119ML) into inland waters.

Waste and recycling

The latest annual data (2018-19) for waste generation and disposal, shows that the rates of recycling and composting have both increased significantly, leading to an increase in the total recovery rate from 26.2 percent in 2009-10 to 46.2 percent in 2018-19. Factors contributing to this trend include improved data collection and reporting for recycling and composting in Tasmania, as well as the actual increased rates of recycling and composting. Of the 402,921 tonnes of waste disposed of to landfill in 2018-19, approximately 54.5 percent was generated by the commercial and industrial sector, 36.7 percent was municipal waste, and 8.8 percent was construction and demolition waste. These results are typical of waste sector breakdowns over the last 10 years.

Waste initiatives

The EPA continued to support the Government's waste initiatives aimed at reducing litter and clamping down on illegal rubbish dumping. This included the launch of Report Rubbish website and mobile app, supporting amendments to the *Litter Act 2007* to increase penalties for dumping larger amounts of rubbish, and planning for the introduction of a container refund scheme. Policy work focused on issues relating to the National Waste Policy Action Plan, the Council of Australian Governments' policy on controlling exports of several types of waste material, and regulatory issues in regard to container deposit schemes established in a number of Australian States and Territories.

Contaminated sites

The EPA committed significant resources to participate in the nationally coordinated approach to the management of per- and polyfluoroalkyl substances (PFAS), and a revised Intergovernmental Agreement on a National Framework for responding to PFAS Contamination came into effect on 7 February 2020. The EPA continued to progress the national agreement via the Government endorsed PFAS Action Plan for Tasmania. A Progress Update, August 2019 was released by the EPA during the year, providing information on contaminated sites under investigation and progress on projects such as the ambient monitoring study being carried out in Tasmanian waterways.

Savage River Mine Remediation

The most recent water quality review showed that copper concentrations in the lower Savage River have continued to decline and the findings of the most recent bioassessment survey reflect the ongoing improvement in river health. Since Grange Resources' new South Deposit Tailings Storage Facility became operational in December 2018, the concentrations of most metals and sulphate in Main Creek have decreased dramatically and alkalinity has increased. The draft SRRP Strategic Plan 2020-23 was prepared, the procurement process for the next bioassessment was commenced and the new water monitoring contract had been completed by the years' end.

Enforcement

During the year, the EPA prosecuted Huon Aquaculture Company Pty Ltd for one count of depositing a pollutant where it could reasonably be expected to cause material environmental harm and five counts of breaching an EPN. The Company was convicted of the offences, which occurred between August 2015 and May 2018, and fined \$40,000. In addition, nine infringement notices and two written warnings were issued under EMPCA; and under the *Litter Act 2007*, 86 infringements and one Abatement Notice were issued.

Incidents

During the year, the EPA received 30 marine pollution reports relating to fuel and oil spills with two-thirds being reports from members of the public about pollution in coastal areas and estuaries. Between January and June 2020, the EPA responded to six incidents of sunken vessels at St Helens. The EPA also responded to the sinking of a 12-metre vessel at Kings Pier Marina, Hobart in January 2020, and to a number of fuel spills from vessel bunkering operations around the Hobart wharves.

Air quality monitoring

Tasmania's air monitoring network, with real-time reporting of air quality data from 35 stations, continued to provide valuable public health information in 2019-2020. Smoke from the large bushfires on the south-eastern Australian mainland in 2019-2020 moved across Bass Strait on several occasions and the very dry conditions also saw minor dust storms from the mainland reaching Tasmania several times in October and November 2019. The EPA deployed three temporary stations at Bicheno, St Marys and Swansea during the bushfire interval, and a temporary station was also deployed at Bruny Island in June 2020 during a local fire incident.

Water Quality Monitoring

Technical water monitoring advice was provided in relation to a number of assessments during the year, including the expansion of Huon Aquaculture's fish processing activity at Parramatta Creek, and Tassal's fish hatchery and wastewater reuse activity at Hamilton. Specialist advice was also provided for several incident investigations undertaken by the EPA, including a diesel spill onto waters of the D'Entrecasteaux Channel, discharge of untreated salmon net washing wastewater to land, and a chemical spill into Cooee Creek near Burnie. In relation to salmon farming, water quality monitoring continued at Macquarie Harbour, Okehampton Bay and Mercury Passage, and in Storm Bay.

Sponsorship

For the seventh consecutive year, the EPA sponsored the EPA Sustainability Award, which is part of the Tasmanian Community Achievement Awards. It was won in 2019 by Lion Dairy and Drinks at Lenah Valley for the Company's demonstrated commitment to cleaner production, waste minimisation and environmental sustainability. The EPA also continued to sponsor the annual conferences for Kids4Kids education program, the Environmental Health Association, and the Local Government Association of Tasmania.

I wish to thank the Chair and members of the EPA Board along with staff of EPA Tasmania for the work they have undertaken over the past 12 months. Together with the Chair of the EPA Board, I am pleased to present the combined achievements of the EPA in the following report and I look forward to reporting on the progress in 2020-21.



Wes Ford
Director
Environment Protection Authority

About the EPA

Mission Statement

Our Vision

A clean, healthy and sustainable Tasmania.

Our Purpose

To protect and enhance the quality of the Tasmanian environment in balance with economic and social values, and the needs of future generations.

Our Values

Objectivity

Our work is underpinned by scientific principles, objectivity, professional rigour and the best available information. We use contemporary science and technology to make informed decisions.

Independence

The EPA makes informed decisions based on sound evidence at a distance from Government. We answer to Parliament and the Tasmanian public for our performance.

Leadership

We make decisions to improve environmental outcomes that also support business and industry and the community. Opinions are expressed on significant issues where appropriate in order to influence Government policy and environmental goals.

Collaboration

We consult with, and listen to, a wide range of interests, views and stakeholders across the community. We value working in partnership with other agencies to improve decisions and outcomes.

Transparency

Working with the community and industry requires us to share our directions and achievements openly. It is important for us to show how and why we have made our decisions, and how we have delivered on our commitments.

Professionalism

We strive to perform all our work to relevant professional standards for environmental management and pollution control, and to conduct ourselves in accordance with principles and rules established in the *Tasmanian State Services Act 2000*.

Our Goals

Clean Air

Air quality that protects the health and amenity of our community.

Clean Water

Water quality that supports the values and uses that our community, industries and economy require.

Clean Land

Land that is free of contaminants that would prevent its intended use or pollute the environment.

Acceptable Noise

An environment in which noise is not unreasonably intrusive and does not compromise community health or amenity.

Sustainable Use of Resources

Development that supports a productive community and economy, while sustaining the potential of our natural resources to meet the needs of future generations.

About the EPA

Who We Are

The Tasmanian Environment Protection Authority (EPA) was established as an independent statutory authority under the *Environmental Management and Pollution Control Act 1994* (EMPCA) on 1 July 2008 as an integral part of Tasmania's Resource Management and Planning System.

The EPA consists of a Board and a Director; the Board has an independent Chair, Deputy Chair and two other members alongside the Director. A Deputy member may be appointed if a Board member is unable to perform his or her duties for any reason. All members of the EPA Board are appointed based on their experience and expertise as set out in legislation (EMPCA), bringing knowledge of environmental management across a range of fields.

Statutory role

The EPA's principal statutory role is to administer and enforce the provisions of the EMPCA, and in particular, to use its best endeavours to:

- further the sustainable development and environmental management and pollution control objectives of the EMPCA
- ensure that activities do not cause unacceptable pollution
- advise the Minister on any matter that may significantly affect the achievement of the objectives of the EMPCA, and
- ensure that economic instruments and issues are considered in policy and program implementation.

Responsibilities

The Board's primary functions are to assess environmental impacts and determine appropriate operating conditions for the larger scale developments described in EMPCA. Other areas of responsibility include environmental agreements, audits, improvement programs, financial assurances, the Environment Protection Fund, the Savage River Rehabilitation Project, fee remissions and policy implementation.

The EPA Director has a range of functions and powers prescribed in EMPCA, including a number of powers exercised under delegation from the Board; and is also responsible for administering the *Litter Act 2007* and the *Pollution of Waters by Oil and Noxious Substances Act 1987*. The Director is in charge of the day-to-day regulatory decisions in relation to larger scale (Level 2) industrial activities, contaminated sites and issues of environmental harm or nuisance.

The Board and Director make determinations independently of the Minister and elected Government. They are supported in their roles by the staff of EPA Tasmania, a Division of DPIPWE (see Figure 1). This professional support is through the provision of advice – specialist, scientific, technical, regulatory and policy – along with the daily operation and activities of the EPA, which are reflected in this Report. These activities include assessing development proposals, setting environmental conditions and performance requirements, facilitating compliance and enforcement, responding to incidents and complaints, informing policy, collecting and analysing data, monitoring environmental quality, and promoting sustainability.

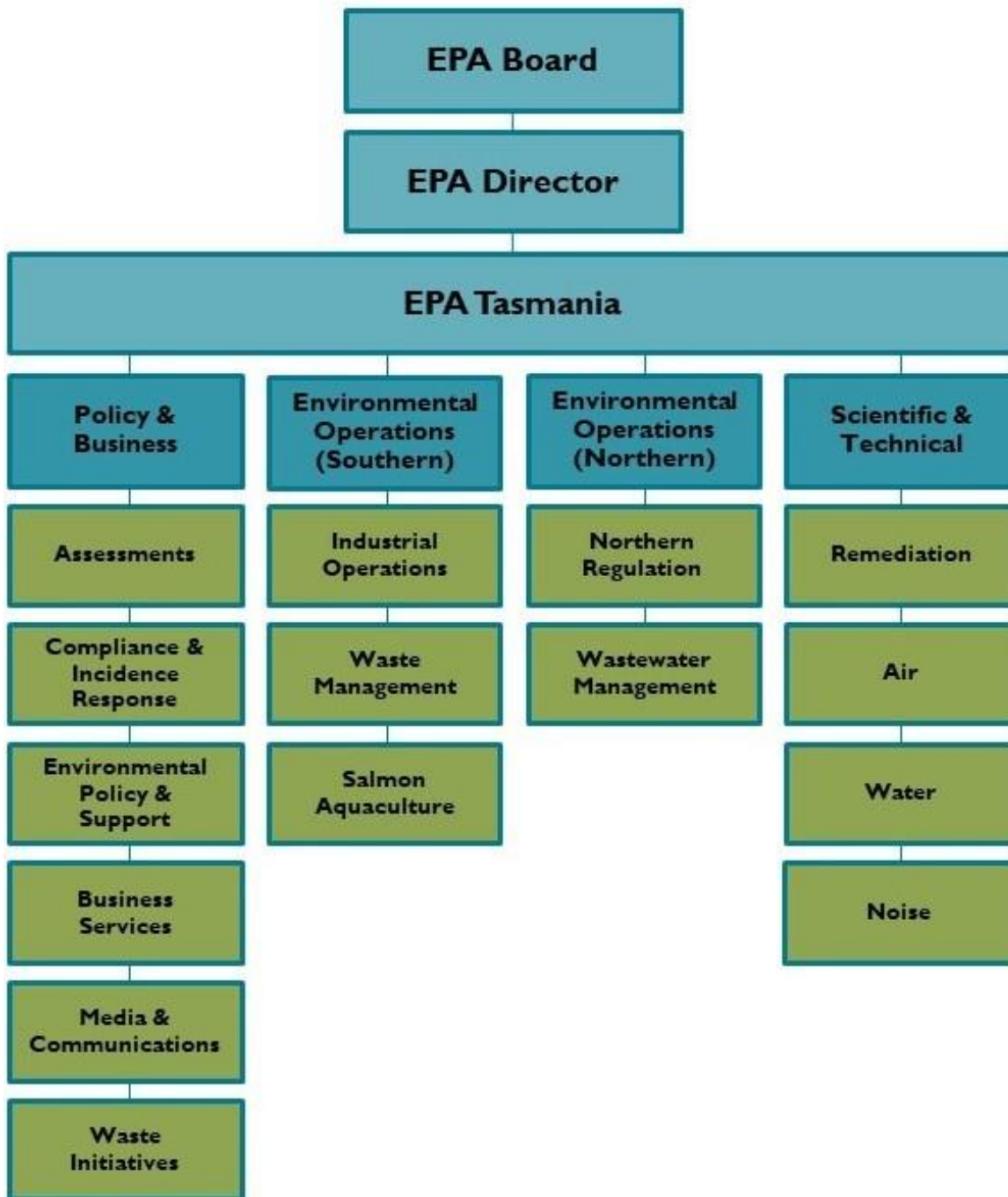


Figure 1. Organisational chart of the EPA and EPA Tasmania (30 June 2020)

Achievements

EPA Board

Current EPA Board Members

The current Board membership commenced on 1 January 2018 and has remained unchanged throughout the 2019-20 reporting year. The Board members are Warren Jones (Chair), Anthony Ferrier (Deputy Chair and Member), Professor Colin Buxton (Member), Belinda Hazell (Member) and Wes Ford (Director). Ms Amanda Locatelli is a Deputy member and can act in the place of a Board Member at a meeting if the member is not able to attend.

Statement of Expectation/Statement of Intent

It is a legislative requirement under EMPCA that the Minister provides the EPA Board with a Statement of Expectation (SoE), which sets out the Tasmanian Government's objectives and priorities for the Board. The SoE may encompass any matter relating to the functions of the Board but cannot prevent the Board from independently performing its statutory functions. The Board is required to respond to the Minister with a Statement of Intent (Sol) setting out how it will meet these expectations. The most recent SoE and Sol were finalized on 1 April 2019 and 10 May 2019, respectively. Both documents are available on the EPA website. The Sol sets the blueprint for the Board's objectives for the period until mid-2020 and includes performance measures. A report against each of these measures is provided in Table 1.

Table 1. EPA Board's Performance Measures and Objectives

Objectives	Performance Measures	Assessment
Ensure the Board carries out its functions and activities in conformance with the requirements of the Act.	Assessments completed within the timeframes required by the Act.	Twelve Level 2 assessments were completed, 3 by the Board and 9 under delegation. All were completed within the statutory timeframe.
	Board decisions not overturned because of incorrect procedures.	Achieved.
Ensure the Board's decision-making is independent, transparent and objective.	Process in place to deal with conflicts of interest before they arise.	Achieved.
	No decisions overturned because a participating member had a conflict of interest.	Achieved.
	All decisions of the Board, Assessment Reports and the conditions set on permits published on the EPA web site.	Achieved.
Provide leadership and direction on matters of environmental quality and sustainability	Complete and publish a Strategic Plan for the Authority for the period 2016-19	Not achieved. The Strategic Issues Workshop to initiate the Strategic Plan review was delayed by the COVID-19 pandemic. A review of progress against the Strategic Plan was completed in July 2020.
Address the specific matters and priority issues identified in the Minister's Statement of Expectation.	Respond to the recommendations of the <i>Review of Administrative Processes in the Assessment of Level 2 and Called-in Activities</i> to make the assessment process more efficient and effective.	During 2019-2020 the Board <ul style="list-style-type: none"> • Approved and put into use revised guidelines to simplify and streamline the assessment of small quarries and extractive pits. • Through EPA Tasmania held information sessions on the changes to assessment processes

Objectives	Performance Measures	Assessment
		for local council officers and consultants. <ul style="list-style-type: none"> Received briefings on the implementation of the reforms and whether they were achieving their objectives.
	Revise the Board's Annual Fee Remission Guidelines for the variable component of annual permit fees to make them more effective in promoting and rewarding better environmental performance.	The Board discussed the matter on several occasions and requested an options paper from EPA Tasmania. This has not yet been received and remains an outstanding action item.
	Annual report includes a statement of achievements against Board objectives and the Ministers Statement of Expectation.	Achieved.

Strategic Plan

The EPA's Strategic Plan is focused on the strategic goals for clean air, clean water, clean land, acceptable noise and sustainable resource use; and establishes the priorities, objectives and tasks consistent with the longer-term vision and purpose of the EPA. The current Strategic Plan was finalised in November 2016 and is currently under review, and is available on the EPA website.

General and Special Meetings

During 2019-20 the EPA Board met formally for a general Board meeting on nine occasions. In addition, there were two out-of-session meetings. Table 2 lists the attendances by Board members at these meetings over the period.

During 2019-20 the EPA Board:

- Undertook the environmental assessment of three proposed Level 2 activities (detailed under Development Assessments).
- Approved and implemented the revised Extractive Industry Environmental Effects Report Guidelines to streamline and simplify the assessment of small and low risk quarries and extractive pits.
- Monitored the implementation of the measures to give effect to the recommendations of the Review of Administrative Processes in the Assessment of Level 2 and Called-in Activities.
- Considered revised Biosolids Reuse Guidelines and endorsed revised Sewage Pumping Station Environmental Guidelines.
- Considered how the National Waste Policy and draft Tasmanian Waste Action Plan might affect assessments undertaken by the Board.
- Reviewed the post approval history of two developments (Granville Harbour Wind Farm and Whale Point Recirculating Aquaculture System) to see how effective the Board's conditions were and whether the predictions of the approval documentation have proved accurate.
- Continued the annual sponsorship of the Tasmanian Community Awards' Sustainability Award, the Local Government Association's conference, the Environmental Health Association's conference, and the Kids4Kids Sustainability Leaders conference.
- Allocated funds from the Environment Protection Fund on a conditional basis to the Tasmanian Conservation Trust for a used tyre cleanup.
- Considered the implications for the Board and its operation of a draft Bill to amend EMPCA.

- Undertook several field inspections including:
 - A wind farm under construction (Cattle Hill) and the site of a proposed new wind farm (St Patricks Plains)
 - The proposed site of a Recirculating Aquaculture System at Hamilton
 - Two factories for the production of agricultural and fish farm feed products in the north-west, and
 - A fish processing factory at Paramatta Creek.
- Developed a process for reviewing the information about the previous history of proponents that the Board must have before making a decision on an environmental licence.
- Discussed the need for a more strategic approach to the assessment of the impact of wind farms on eagles and received a presentation on a project to use GPS trackers to map eagle movements.
- Noted guidelines for offsets to compensate for the impact of wind farms on eagles prepared by DPIPW.
- Considered a proposal to establish as a Board policy a lower noise emission limit for wind farms.
- Determined a number of applications for Special Fee Remissions due to lack of, or delayed, production.
- Reviewed progress with, and approved the annual budget for, the Savage River Remediation Program (SRRP).
- Approved in principle funding from the SRRP component of the Environment Protection Fund for a study into the feasibility of recovering cobalt from historic tailings at the Savage River Mine.
- As part of its program to ensure sound administration and governance:
 - Reviewed registers the Board is required to maintain
 - Monitored the Environment Protection Fund
 - Carried out annual reviews of delegations, authorisations and protocols and re-made or amended these as required.

Table 2. EPA Board members meeting attendances in 2019-20

Board Members	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Nov 2019	Dec 2019	Jan 2020	Mar 2020	Apr 2020	Jun 2020	Total
W Jones												11
A Ferrier												10
C Buxton												10
B Hazell												9
W Ford												10
M Read												1
D Cook												0
A Locatelli												3

Notes ■ Attended Regular Meeting ■ Attended as observer ■ Special Meeting

Achievements

Clean Air

Clean air is vital for the health of our community, our economy and for the enjoyment of our natural environment. To ensure the continued improvement of air quality across Tasmania, the EPA is committed to implementing EMPCA and the *Environment Protection Policy on Air Quality (Air Policy)*; and to achieving the national air quality standards and goals set in the *National Environment Protection (Ambient Air Quality) Measure (Air NEPM)* and the objectives of the Tasmanian Air Quality Strategy.

During 2019-20, the EPA contributed to the achievement of its air quality related goals by:

- Providing expert advice on the management of air quality issues, including evaluating air dispersion modelling of odour and other pollutants emitted to air, for the assessment of industrial activities.
- Providing air specialist expertise to facilitate the regulation of industrial facilities ensuring air emissions comply with regulatory requirements and impacts of air pollution are minimised.
- Monitoring ambient air particle concentrations at the Launceston, Hobart and Devonport reference level stations in accordance with the requirements of the Air NEPM.
- Operating the statewide BLANKET (Base-Line-Air-Network-of-EPA-Tasmania) network of 35 stations to measure ambient air particle concentrations across Tasmania and report to the EPA website in real-time.
- Monitoring winter air quality in Tasmanian communities using the car-based Travel-BLANKET equipment and relocatable BLANKET systems, to improve knowledge of air quality issues and better understand the extent of population exposure to wood smoke.
- Addressing the impact of smoke from planned burns by working with relevant government agencies to improve the effectiveness of the Coordinated Smoke Management System, and improving understanding of smoke dispersion from planned burns using air quality monitoring, satellite imagery and Bureau of Meteorology air-parcel trajectory analysis.
- Monitoring ambient levels of sulphur dioxide in the vicinity of the Hobart Port and reporting results in near real-time to the EPA website.

Achievements

Clean Water

Water quality that is safe for community use and meets environmental requirements is a critical concern of the EPA. The EPA's aim is to achieve sustainable development and management of water quality by implementing the EMPCA and the *State Policy on Water Quality Management 1997*.

During 2019-20, the EPA contributed to the achievement of its water quality related goals by:

- Providing specialist advice to the assessment and regulatory areas in the EPA and EPA Board for Level 2 activities, and where requested to Local Government for Level 1 and other activities.
- Providing specialist advice, by assessing potential impacts on surface and ground water quality from emissions, on environmental management plans, ambient monitoring reports, and discharge management plans.
- Providing specialist advice to the Salmon Environmental Management Section, and associated advisory and working groups.
- Undertaking strategic ambient water monitoring programs to assist in water quality management planning for Macquarie Harbour Water Quality Program, and to augment and validate existing baseline environmental monitoring programs at Macquarie Harbour, Okehampton Bay and Mercury Passage, and Storm Bay.
- Maintaining the currency of the Oil Spill Response Atlas, implementing strategic programs, and contributing to response plans for coastal and marine areas.
- Providing specialist advice to scientific and technical steering committees and working groups for fresh water and estuarine ecological health assessments, under the National Water Quality Management Strategy (NWQMS).
- Supporting the monitoring work of the Derwent Estuary Program.
- Monitoring for discharges during incidents, auditing regulated activities, investigating non-compliance, enforcing environmental regulations and prosecuting if necessary, in order to protect water quality values and reduce impacts from environmentally significant activities.
- Regulating 80 Level 2 Wastewater Treatment Plants (WWTPs) throughout the State, operated by TasWater (77), Parks and Wildlife Service (2), and Port Arthur Historic Site Management Authority (1).
- Engaging with TasWater regarding public wastewater management and strategic planning for improvements to infrastructure, according to the Memorandum of Understanding with the EPA, which ended in December 2019.
- Producing Sewage Pumping Station Environmental Guidelines (October 2019), which replace the 1999 version, to reflect changes in the environmental regulatory framework, national guidelines and codes of practice relevant to sewage pumping stations.

Achievements

Clean Land

Land contaminated by environmentally hazardous materials can potentially affect the health and amenity of communities and taint surface and groundwaters, presenting a burden for future generations. The EPA has been pursuing the goal of clean land through EMPCA, particularly the *Environmental Management and Pollution Control (Waste Management) Regulations 2020*, and by using the *Environmental Management and Pollution Control (Underground Petroleum Storage Systems) Regulations 2020* to prevent future contamination and to remediate past contamination.

During 2019-20, the EPA contributed to the achievement of its clean land related goals by:

- Reducing the risks from contaminated land by undertaking regulatory activities such as rule setting, compliance assessment and management, and management of land and groundwater pollution at priority contaminated sites.
- Managing risks from controlled waste, controlled waste transport and larger Tasmanian landfills, by undertaking regulatory activities including compliance auditing, management approvals and development of guidelines.
- Remaking the *Environmental Management and Pollution Control (Underground Petroleum Storage Systems) Regulations 2020* (UPSS Regulations) to reflect improvements in knowledge and technology, and to better protect UPSS owners and operators, the public and the environment from the impact of fuel leaks.
- Preventing and reducing pollution associated with fuel storage by assessing compliance and managing non-compliance with the UPSS Regulations.
- Taking steps to ensure that contaminated land and groundwater is managed to a high standard by implementing a certification scheme for contaminated land professionals.
- Improving the accessibility of information relating to contaminated sites by providing a layer on LISTmap showing active UPSSs and sites where a UPSS has been temporarily or permanently decommissioned, and including the locations and details of notices served to investigate, remediate or manage contaminated sites.
- Participating in the nationally coordinated approach for PFAS management, working with lead entities to address PFAS contamination, implementing the PFAS Action Plan, and publishing a Progress Update in August 2019.
- Supporting the Government to achieve its litter reduction goals through the introduction of increased penalties under the Litter Act, and the launch and promotion of Report Rubbish, a web-based application designed for easy reporting by the public with automatic notification to the relevant land manager.
- Supporting the Government's waste and resource recovery policies, as outlined in the draft Tasmanian Waste Action Plan, including the introduction of a legislated levy on landfill by 2021 and a Container Refund Scheme by 2022.
- Supporting the Government's work at the national level such as the development of the National Waste Policy Action Plan 2019, and the policy and legislative action required to implement waste export bans for glass, plastic, tyres and paper and cardboard.
- Providing data collection and collation services to commercial, government and community relating to contaminated land, and waste generation and recovery.

Achievements

Acceptable Noise

Continued exposure to unacceptable noise levels can have an adverse effect on human health and the community's quality of life. The *Environment Protection Policy (Noise) 2009* (Noise EPP) was formulated as a framework to guide management of noise in several key areas including planning, transport infrastructure development, commercial and industrial activities, domestic and miscellaneous sources of noise.

During 2019-20, the EPA contributed to the achievement of its noise related goals by:

- Ensuring that assessments of potential impacts from new or expanded Level 2 activities include a suitably detailed review of noise and/or vibration generation and that predicted noise and vibration levels are within appropriate limits.
- Reviewing the operating conditions relating to noise from existing Level 2 activities.
- Reviewing the conditions for quarries that use blasting against ground vibration and airblast over-pressure limits.
- Providing specialist advice and technical assistance to local council Environmental Health Officers in relation to managing noise from Level 1 activities and general neighbourhood noise.
- Providing advice and reviewing operating conditions for marine farming operations, dealing with major sources of noise such as air compressors, diesel generators, fish feeding and work vessels.
- Undertaking 17 noise surveys in response to complaints and investigations, including continued investigations related to industrial noise from the Bell Bay industrial area and upper Tamar Valley.

Achievements

Sustainable Use of Resources

As a component of Tasmania's Resource Management and Planning System (RMPS), the EPA aims to further the objectives of the RMPS, including the promotion of the sustainable development of natural and physical resources, and the maintenance of ecological processes and genetic diversity. Sustainability is a foundation of the EPA's vision for a Tasmania that is clean, healthy and sustainable. This principle is applied across the range of activities undertaken by EPA and it is pursued actively through partnerships, community engagement, sponsorship, and education programs.

During 2019-20, the EPA contributed to the promotion of sustainable resource use:

- Supporting environmental co-regulation by local councils through a Memorandum of Understanding between the EPA and Local Government Association of Tasmania (LGAT) which seeks to improve environmental regulation in Tasmania, and contributing funding to the Workforce Development Project, which is designed to address barriers to the ongoing sustainability of the Environmental Health profession in Tasmania.
- Continuing with the EPA Sponsorship Program with funding from the Environment Protection Fund for the annual EPA Sustainability Award (\$10,000), the annual Kids4Kids environment conference (\$4,000), and the annual conferences for the Environmental Health Association (Tas) (\$1,364) and LGAT (\$2,100).
- Conducting educational, hands-on activities about waste and litter at events in National Science Week, at the three statewide Kids4Kids environment conferences and during various school visits, and through displays at community events.
- Finalising the development of teaching materials, Waste – A Teaching Manual for Grade 2 Litter, and establishing a statewide waste education network.
- Supporting the Government's waste and resource recovery framework, which is based on the Circular Economy approach to valuing and maximising the use of resources and minimising waste.
- Raising community awareness about domestic wood smoke pollution and effective operation of wood heaters through the annual Burn Brighter this Winter (BBtW) campaign through a statewide print advertising campaign, the EPA website, and support for local government in managing complaints.
- Producing 27 media statements, broadcasting all assessment decisions made by the Board and key regulatory decisions by the Director, and responding to 74 enquiries from the media.
- Publishing the Minutes of monthly EPA Board meetings as EPA Communiqués and maintaining up to date information on the EPA website.

Activities

Environmental Assessments

Development proposals for Level 2 activities listed in Schedule 2 of EMPCA must be referred to the Board for environmental impact assessment. Occasionally non-Level 2 activities may also be called-in by the Director for assessment by the Board. After an initial scoping phase, the EPA provides guidance to the proponent on the information that must be given to enable the proposal to be assessed. Once this information has been submitted, comments are invited from the public and relevant government agencies. At this point the proponent may be required to provide additional information to assist the EPA Board in its assessment.

The Board may either refuse a proposal or require Council (the Planning Authority) to impose conditions on any subsequent permit. In other cases, the Director may issue an Environment Protection Notice (EPN) containing the EPA's conditions, which are designed to prevent or mitigate adverse environmental impacts of the proposal. Detailed information for each assessment, including the Board's assessment reports and permit conditions, is provided on the EPA website.

During 2019-20, 12 assessments were completed (as listed in Table 3), compared with 26 in 2018-19, 24 in 2017-18 and 17 in 2016-17. These include four quarries, three sand extraction and processing facilities, an abattoir and rendering plant, aquaculture hatchery, composting and wood processing facilities and a wind farm. In total, 54 assessments were in progress at the close of the 2019-20 year, compared to 44 at the end of the previous year. A list of active assessments which have been formally lodged with the EPA is available on the EPA website.

A bilateral agreement between the State and Commonwealth governments means that the EPA Board's assessment of development proposals, that also require Commonwealth approval under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth), may be accepted by the Commonwealth for the purposes of making its approval decision. Table 4 provides details of the four assessments that were in progress under the bilateral agreement in 2019-20.

The Board's Statement of Intent includes performance measures aimed at ensuring that the Board carries out its assessments according to the statutory timeframes that apply to stages of the assessment process. Performance measures are the number of assessments completed on time and the number of assessment decisions appealed and overturned. In 2019-20, 100 percent of assessments compared with 88 percent last year, were completed within the timeframe and no decisions were appealed and overturned.

The majority of recommendations of the 2017 *Review of Administrative Processes in the Assessment of Level 2 and Called-in Activities* (the Review) were implemented during 2018-19 and 2019-20. This involved significant revision of the Board's Guidance documents for planners and proponents, with new Environmental Effects Report (EER) Guidelines for smaller scale projects and new Environmental Impact Statement (EIS) Guidelines for larger proposals, to replace the previous Development Proposal and Environmental Management Plan (DPEMP) Guidelines.

Table 3. Completed EPA Assessments for 2019-20

Client	Location	Activity	Date	Decision
BG & JM Barwick Pty Ltd	314 Midland Hwy, Bridgewater	Composting facility	19/06/2020	EPA Director
Boral Construction Materials Group	Tasman Hwy, Tonganah	Sand pit and screening	19/06/2020	EPA Director
CA & SM Williams	1356 Tea Tree Rd, Campania	Quarry	29/01/2020	EPA Board
CLTP Panel Products Pty Ltd	Wynyard Cross Laminated Timber Panel Plant, 3 Waterworth St, Wynyard	Timber processing facility	25/10/2019	EPA Director
Graymont (Tasmania) Pty Ltd	Graymont Lime Mole Creek, Den Rd, Mole Creek	Waste depot intensification	30/08/2019	EPA Director
Greenham Tasmania Pty Ltd	Smithton Abattoir and Rendering, Bacon Factory Rd, Smithton	Wood fired boiler	22/04/2020	EPA Director
Hall, Elizabeth Jane	Manuka Park, 963 Waterhouse Rd, Waterhouse	Extractive pit	9/01/2020	EPA Director
JG & EA Doddridge	Haytons Hill Quarry, Off White Hills Rd, Forcett	Quarry	17/05/2020	EPA Director
Kentish Construction & Engineering Co Pty Ltd trading as Treloar Transport Co	Moina Quarry, Off Cradle Mountain Rd, Moina	Quarry	27/11/2019	EPA Director
Rowell, D J	Calder Road Sand Washery, Calder Rd, Wynyard	Sand processing facility	17/02/2020	EPA Director
Tassal Operations Pty Ltd	56 Woodmoor Rd, Ouse	Fish farm	14/04/2020	EPA Board
UPC Robbins Island Pty Ltd	Little Harcus Road, Jims Plains	Wind farm	17/04/2020	EPA Board

Table 4. Assessments completed or in-progress under the Commonwealth-State Bilateral Agreement in 2019-20

Client	Location	Activity	Status
Venture Minerals Limited	Mt Livingstone, off Pieman Rd, Tullah	Mine and materials handling	In progress
Venture Minerals Limited	Mt Lindsay Tin-Tungsten-Magnetite Mine Project, off Pieman Rd, Tullah	Mine and mineral works	In progress
Bluestone Mines Tasmania Joint Venture Pty Ltd	Rentails (Renison Tailings Treatment) Project, Renison Bell Mine, Renison Bell	Tailings re-processing plant	In progress
UPC Robbins Island Pty Ltd	Little Harcus Road, Jims Plain	Wind farm	Completed
UPC Robbins Island Pty Ltd	Robbins Island, North West	Wind farm	In Progress

Activities

Regulation of Industrial Operations

The EPA regulates Level 2 activities, as defined in Schedule 2 of EMPCA, that are primarily large industrial operations involved with energy generation and supply, food and beverage processing, metallurgical and chemical processing, wood processing, mining and extractive industries. The aim of the EPA's industrial regulation is to ensure environmental risks are managed, and that they do not result in unacceptable impacts to the environment.

In 2019-20, the EPA regulated 367 Level 2 industrial activities. Of these, 137 were regulated out of the EPA's Northern Regulation section (Launceston and Ulverstone offices), and the remaining 230 were regulated by the Industrial Operations section in Hobart. The EPA uses a risk-based approach when regulating industry, including scheduled reviews of legal instruments, compliance audits, follow-up actions to address problems, and responding to complaints and incidents.

EPA-regulated activities must be operated in accordance with conditions set by the EPA Board, generally contained in permits issued by planning authorities (local councils), which may be varied as necessary by the Director via an Environment Protection Notice (EPN). The conditions for Level 2 activities are revised periodically if there is a change in the nature of operations or environmental risk. Stand-alone EPNs are also issued to require clean-up or to prevent environmental harm or environmental nuisance.

Activity measures for the regulation of industrial activities in 2019-20 are shown in Table 5, and a summary of notable industrial activities regulated by the EPA in 2019-20 is provided in Table 6.

Table 5. Regulatory activities for Level 2 premises in 2019-20 compared with the previous four years

Activity Measures (Number)	2015-16	2016-17	2017-18	2018-19	2019-20
Environment Protection Notices Issued	63	64	47	48	46
Compliance Audits	87	97	89	79	38
Site Inspections	184	152	130	170	103

Table 6. Notable industrial regulatory activities in 2019-20

Meat Industry	
Devonport Rendering	Devonport Rendering is progressing major upgrades to its existing Quoiba rendering facility, previously owned by JBS Australia. The EPA has reviewed an Operations Environmental Management Plan in addition to an Odour Contingency Plan to ensure environmental impacts will be adequately managed at the site. An updated EPN was issued in July 2019. Once fully operational the facility will receive waste suitable for rendering from both abattoirs and fish processing facilities.
Aquaculture Feed Mills	
BioMar	The BioMar Aquaculture Feed Mill at Wesley Vale completed commissioning and commenced operations in July 2020. An EPN and an Environmental Approval were issued to BioMar to cover the management of risks presented by asbestos containing material discovered at the site during construction. The EPA has also reviewed and approved BioMar's Odour Management Plan, which includes a commitment to undertake quarterly odour surveys. The first odour survey is expected to be submitted for review before the end of 2020.
Ridley	The Ridley Aquaculture Feed Mill at Westbury has been operating for 12 months. During the warmer summer months of 2019-20, the EPA received several complaints regarding odour nuisance from the facility. In addition to quarterly odour surveys required by the approved Ridley Odour Management Plan, the EPA has imposed odour and infrastructure testing to inform an Odour Reduction Action Plan which will identify additional actions to better control odour emissions from the facility.

Resource Recovery	
Recycling Industry Review	The EPA undertook a desktop review of the waste and resource recovery sector in Tasmania in order to inform risk-based regulatory arrangements across Local government and the EPA. The project facilitated the identification of recycling businesses that present risks to the environment and warrant regulation. As a result of the project the EPA issued two EPNs to Tasmanian recycling businesses, Sims Metal Management at Bell Bay and Intercontinental Metals in Burnie.
Quarries	
Forestry Quarries	The EPA, in consultation with the Forest Practices Authority (FPA), has undertaken a review and rationalisation of the assessment process for Level 2 forestry quarries and subsequent regulation of those activities. In September 2019, the rationalised assessment and regulation process was presented by the EPA to FPA Officers undertaking a Forest Practices Quarries course. A Memorandum of Understanding between the EPA and the FPA to formalise this process is currently under development.
Hanson Materials Group	The EPA has consulted with Hanson Materials Group following receipt of a number of complaints relating to blasting at the Flagstaff Gully Lindisfarne quarry. Investigation found that while compliant with permit requirements, a wider nuisance impact was being experienced by residents in adjacent suburbs. Hanson Materials Group have reviewed blasting practices and implemented changes to reduce the potential for impacts on surrounding residents.
Fish Processing	
Tassal Operations	Tassal has relocated the hot smoking of salmon from Margate to its Huonville factory. This follows EPA approval of trials to assess the feasibility of hot smoking at the Huonville site, where previously only cold smoking was undertaken. The EPA has approved a Plan of Action from the company to measure and address smoke emissions from the salmon smoking kilns. The EPA will continue to closely monitor emissions produced from both hot and cold smoking operations.
Mining	
Grange Resources	Significant mining developments are progressing at the Savage River mine site to extend the life-of-mine. These involve the construction of a 3.7 km exploration decline below the Northern Pit to prove up future underground mining and the expansion of the existing Centre Pit. The EPA has been involved in the ongoing environmental assessment of both projects.
Industrial	
Nyrstar	The EPA continues to oversee Nyrstar's Groundwater Management Plan with the aim to recover metals from contaminated groundwater on the Lutana site. In January 2020, Nyrstar constructed a grout curtain and associated horizontal groundwater extraction bore. These approved works fulfil the objective of the Groundwater Management Plan to reduce groundwater contamination and hydrogeologically isolate the site from the River Derwent.

Activities

Salmon Aquaculture Regulation

The EPA regulated 65 premises involved in finfish aquaculture, consisting of 44 marine farms in State waters, one reverse osmosis water plant supporting marine finfish farming activities and 20 inland fish farms in 2019-20.

The licensed marine farming leases occupy a total of 2,593 hectares, with farming conducted in all regions across the State. For management purposes the leases are grouped under seven marine farming development plan areas. They are the Tasman Peninsula; Huon River estuary and D'Entrecasteaux Channel; Storm Bay; Okehampton Bay; Macquarie Harbour; and the Tamar Estuary. Each of these areas has its own set of environmental considerations and management controls. The EPA also regulates a reverse osmosis facility associated with finfish farming activities at Okehampton Bay.

Environmental Licences (ELs) have now been issued for all marine finfish farming leases under EMPCA, which have largely carried over relevant environmental conditions from existing marine farming licences. A new Environmental Standard for the management of marine finfish farming in Tasmania is currently being developed.

Progressive improvements have been made to the environmental management of fish farms currently producing salmonids (salmon and trout species) in Tasmania's inland waters. A range of environmental regulation processes which were in place prior to the EPA taking responsibility have now been consolidated into ELs. Conditions for each of these premises have been steadily upgraded based on improvements in data and with industry input, to ensure contemporary environmental regulation of these facilities.

The Salmon Environmental Management Section comprises nine staff in the Section's Marine Compliance and Audit Unit, the Land-based Activities Compliance and Audit Unit, and the Policy and Projects Unit. A range of tasks were implemented with the support of EPA Tasmania's Policy Section, Water Section, Analytical Services Tasmania and the Marine Farming Branch, DPIPWVE.

In 2019-20, the following activities were undertaken:

- Issue of 9 ELs for inland and marine fish farming activities (4 new ELs, 4 renewals, and one variation).
- Release of *Draft Review of Tasmanian and International Regulatory Requirements for Salmonid Aquaculture*. This review was released in draft format while the document is being peer-reviewed by national and international experts. Recommendations based on the findings from the draft review are being used in the development of a new Environmental Standard for regulating salmon farming in Tasmania.
- The findings of the draft review provided the basis for development of the first *Tasmanian Salmon Industry Scorecard*, benchmarking the industry against current international practice for environmental monitoring.
- Setting and evaluation of requirements for baseline environmental surveys, and subsequent issuing of new marine ELs to finfish farms in new locations (Storm Bay).
- Undertaking regular compliance assessment activities associated with all existing marine finfish farms, including the setting and evaluation of monthly, bi-monthly, four-monthly, and annual video surveys; and other surveys (eg pre-stocking or follow-up) as required.
- Analysis and interpretation of monitoring and research data to support regulatory decision making.
- Developing and documenting internal procedures for EPA regulation of fish farms.
- Supporting the Director to review and set the Macquarie Harbour biomass cap.
- Drafting environmental conditions and discharge limits for inland fish farms.
- Ongoing development of staff capacity in GIS and data management functions.
- Providing operational input into proposed legislative changes.

- Provide representation for DPIPWE on the Scientific Advisory Council for the Blue Economy Cooperative Research Centre.
- Responding to enquiries and complaints from the public about issues associated with fish farming activities.
- Providing input into Marine Farm Planning processes where relevant to environmental management and compliance processes.
- Provision of information and advice to support EPA assessments of inland fish farm proposals.
- Providing information on environmental regulation of the salmon industry in response to queries from members of the public, community groups, organisations, politicians and the media.
- Input into development and ongoing data provision for the Tasmanian Salmon Farming Data portal on the DPIPWE website.
- Providing scientific input and support to the Institute of Marine and Antarctic Studies (University of Tasmania) and Fisheries Research and Development Corporation fish farm research projects.

Activities

Wastewater Management

The EPA regulates 80 Level 2 Municipal Wastewater Treatment plants (WWTPs) around the State. These are larger WWTPs with capacity to treat an average dry weather flow of over 100,000 litres per day (equivalent to sewage from a town of about 400 people).

Collectively, the Level 2 plants treat over 50,000 megalitres of domestic, commercial, and industrial wastewater annually. Of the 80 Level 2 WWTPs, 77 are operated by TasWater, two are operated by the Parks and Wildlife Service, and one is operated by the Port Arthur Historic Site Management Authority. The three plants not operated by TasWater account for less than 0.2 percent of treated effluent. Most of the 77 WWTPs use secondary treatment, 11 provide for tertiary treatment and one uses primary treatment only. TasWater also operates an additional 33 Level 1 WWTPs that service smaller communities and are regulated by Local Government.

In 2019-20, the EPA and TasWater continued work set out in the Memorandum of Understanding (MOU) on Public Wastewater Management. The MOU ended in December 2019 when it was agreed that it was not necessary to extend it for a further period. Two key strategy areas within the MOU are the Big 13 and the Top 20 WWTPs. Table 7 shows the current compliance and percentage of statewide flow for each of the Big 13. Improvements in compliance at these plants has been achieved through optimisation and the introduction of critical control points over the term of the MOU.

Progress towards improved environmental outcomes

TasWater undertook the following projects during the year, which are intended to lead to better environmental outcomes through improved sewage treatment and effluent quality, and reduced environmental nuisance.

- Construction of a new WWTP at Longford was commenced.
- As part of the statewide desludging program to address accumulated sludge in lagoon WWTPs, desludging was completed at Turners Beach, Port Sorell, Beauty Point, Beaconsfield, and Richmond WWTPs, with all sludge from the program being applied to agricultural land for beneficial reuse.
- Summer and Winter odour studies were undertaken at Cameron Bay WWTP followed by refurbishment of biofilters used to handle inlet and primary sedimentation tank odours.

The latest data available is based on information collated for the Tasmanian Water and Sewerage State of the Industry Report, which results in a delay in the reporting for some wastewater statistics. Note also that year to year variation in flow volumes is due to rainfall patterns.

Table 7. Big 13 WWTPs showing daily flow and percentage compliance in 2018-19 compared with 2017-18

WWTP (Local Government Area)	Average Daily Flow ML/day 2018-19	Proportion of statewide flow (%)	Effluent compliance (%) 2017-18	Effluent compliance (%) 2018-19
Ti Tree Bend (Launceston)	15.1	10.9	96.3	98.8
Pardoe (Devonport)	12.5	9.0	86.9	87.2
Macquarie Point (Hobart)	10.6	7.6	94.6	93.1
Selfs Point (Hobart)	8.8	6.3	96.7	96.4
Ulverstone (Central Coast)	7.2	5.2	90.8	84.8
Prince of Wales Bay (Glenorchy)	8.0	5.8	89.5	97.7
Round Hill (Burnie)	6.3	4.5	91.4	90.4
Rosny (Rosny)	6.0	4.3	81.1	87.8
Cameron Bay (Glenorchy)	4.8	3.5	98.7	97.9

Wynyard (Waratah- Wynyard)	3.6	2.6	90.4	90.4
Smithton (Circular Head)	4.1	3.0	59.0	71.2
Blackmans Bay (Kingborough)	4.4	3.2	75.8	76.1
Newnham Drive (Launceston)	2.9	2.1	82.3	77.6

Capital Project Delivery

The Top 20 was a rolling list of WWTPs other than the Big 13 that pose high environmental risk for toxicants, nutrients and odour. Many of the required improvements were dependent on capital projects. Since the MOU ended in December 2019 TasWater and the EPA have been negotiating a reporting framework to monitor progress on these capital projects. The establishment of the Capital Delivery Office (CDO) within TasWater has increased the need for clear communication between all parties.

Wastewater regulation

In 2019-20, key regulatory activities included:

- Five on-site compliance audits, focusing on the Big 13 and Top 20 WWTPs and approval of state-wide management plans submitted by TasWater for managing matters with direct impacts on WWTP performance
- Permit conditions were updated at nine WWTPs including the Parks and Wildlife Service Lake St Clair WWTP
- TasWater were issued with four Environmental Infringement Notices (EINs) during 2019-20, which were in relation to:
 - depositing a controlled waste in a manner likely to adversely affect the use or value of receiving waters, as a result of a sewage spill at Sandy Bay in July 2019
 - failing to develop an operational procedures manual sufficient to ensure compliance with effluent quality limits, resulting in a significant discharge of untreated sewage from Macquarie Point WWTP in August 2019
 - depositing a controlled waste as a result of a significant discharge of untreated sewage from Macquarie Point WWTP in August 2019, and
 - failing to develop an operational procedures manual sufficient to ensure compliance with effluent quality limits, resulting in a significant discharge of non-disinfected effluent from Selfs Point STP in September 2019.
- Rainfall events in March, April and June 2020 lead to closure of shellfish harvest areas due to sewage overflows. The June event impacted many areas in Southern Tasmania leading to numerous overflows to land and water. During this event TasWater maintained an open dialogue with the EPA of the number, location and status of spills.
- Producing Sewage Pumping Station Environmental Guidelines in October 2019 to replace the 1999 version. The revision was required to reflect changes in the environmental regulatory framework, national guidelines and codes of practice relevant to sewage pumping stations. The new Guidelines also recognise the structural change in the Tasmanian sewerage industry, principally the provision of municipal sewage services by TasWater since 2013.

Water and Sewerage Status

The latest data available, which is for 2018-19, shows a total of 50,588ML of treated effluent, representing approximately 280kL per property, was discharged to the following receiving environments: 25,594ML (52%) into estuarine waters; 12,182ML (25%) into coastal waters; 6,119ML (12%) into inland waters; and 5,700ML (11.5%) was discharged to land as recycled water (refer Figure 2). Approximately 38,337ML (75.8%) of the total effluent was treated to secondary standard, 78,699ML (15.2%) received tertiary treatment and 4,552ML (9.0%) received primary treatment. Whilst there are small changes in the relative percentages between the treatment levels from year to year, significant change will not occur without capital expenditure to upgrade WWTP technology.

In 2018-19, 5,700ML (11.5%) of effluent was beneficially reused (refer Figure 3), typically in the irrigation of golf courses, agricultural land (eg pasture and seed crops) and municipal recreational areas. This represents the highest volume of effluent reused in Tasmania to date; mostly being diverted to reuse for irrigation, although this value is greatly influenced by weather conditions. An increase in the volume of treated effluent diverted from water to land is a focus for the EPA and TasWater.

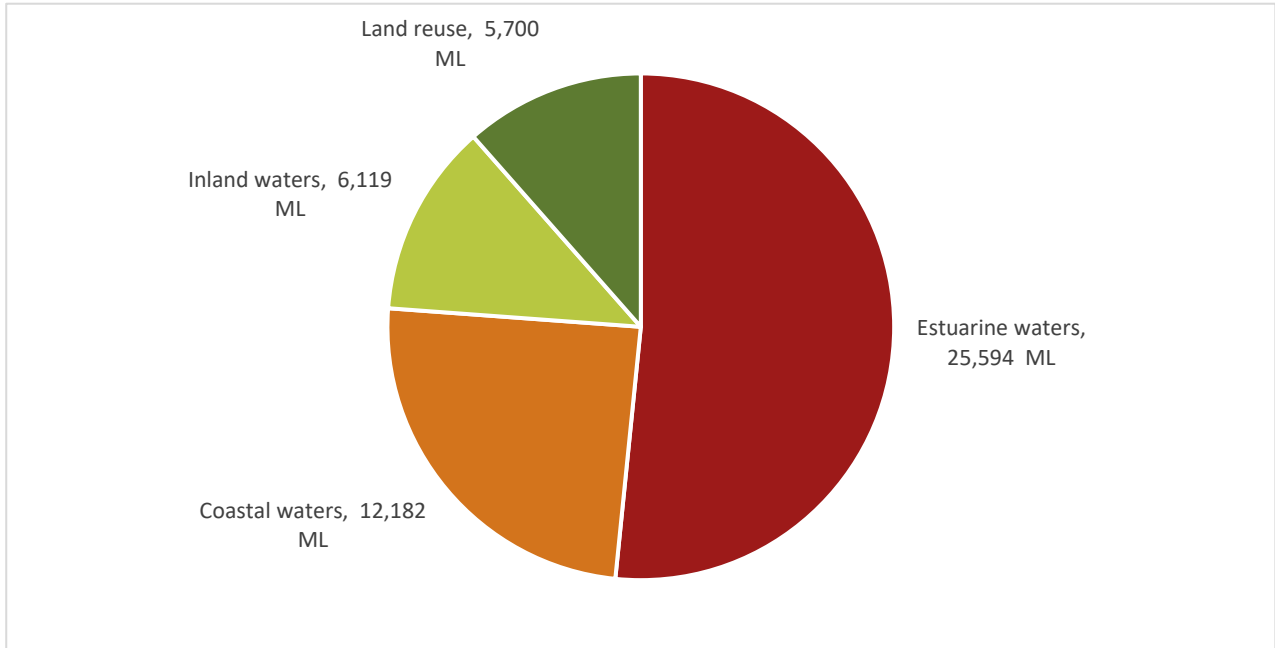


Figure 2. Proportion of treated effluent discharged to receiving waters and reused on land in 2018-19

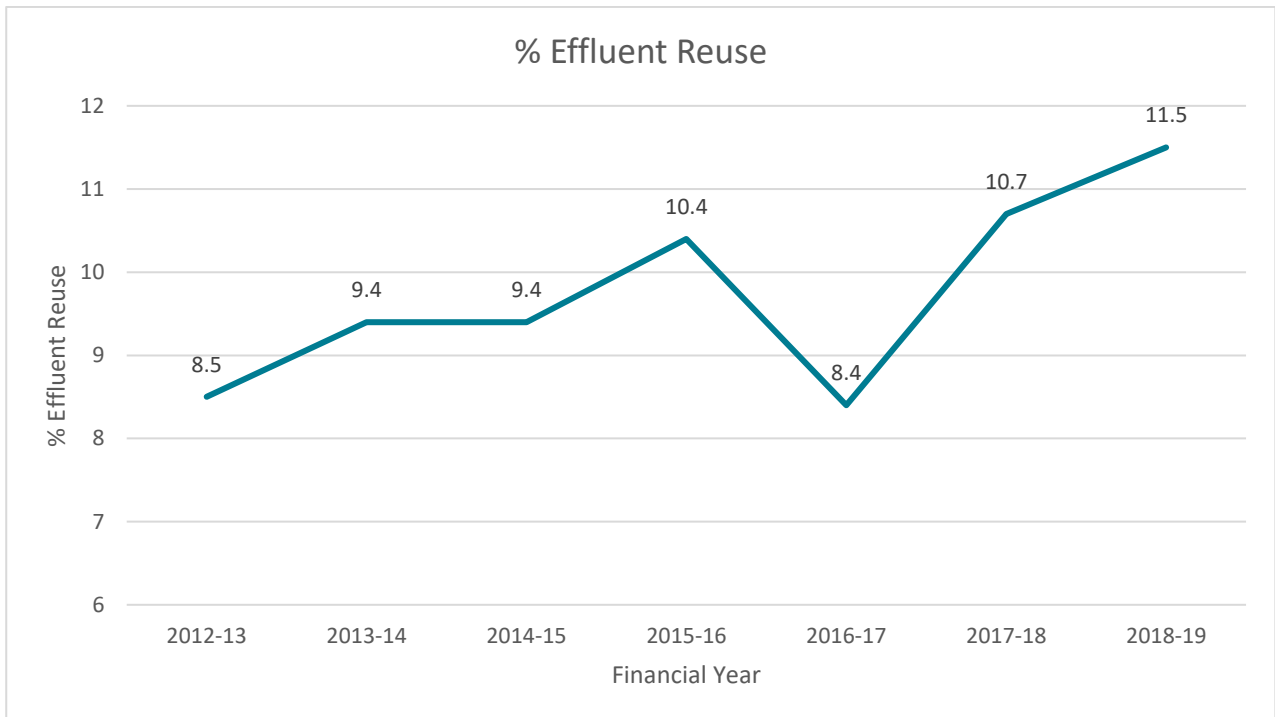


Figure 3. Effluent reuse as a proportion of total volume generated at Level 2 WWTP from 2012-13 to 2018-19

Activities

Contaminated Sites and Waste Management

Contaminated Sites

During 2019-20, the EPA focussed on prevention of land and groundwater pollution by remaking the key regulation aimed at managing petroleum hydrocarbon pollution arising from Underground Petroleum Storage Systems (UPSSs). The *Environmental Management and Pollution Control (Underground Petroleum Storage Systems) Regulations 2020* (UPSS Regulations) commenced on 3 February 2020.

The re-made Regulations reflect improvements in knowledge and technology, and are designed to better protect UPSS owners and operators, the public and the environment from the impact of fuel leaks. The Regulations now include requirements to report petrol detected in a monitoring well and when routine integrity tests indicate *any* loss of fuel. Additionally, consultants undertaking work in accordance with the Regulations must be appropriately certified.

The EPA has improved the accessibility of information relating to contaminated sites by placing a specific layer on LISTmap for UPSSs, including those registered as active and sites where a UPSS has been temporarily or permanently decommissioned. A related layer on the LISTmap provides the locations and details of notices served to investigate, remediate or manage contaminated sites.

The number of notices issued under EMPCA and UPSS regulatory activities last year, compared with the preceding five years, are shown in Table 8.

Table 8. Notices under EMPCA and UPSS regulatory activities over the past six years

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Notices issued addressing land or groundwater contamination	7	8	5	7	5	0
Notices completed or withdrawn	6	5	2	7	4	2
UPSS decommissioning forms received	10	24	18	11	19	15
UPSS sites newly registered	14	8	7	6	15	6

In 2019-20, the EPA committed significant resources to participate in the nationally coordinated approach to the management of per- and polyfluoroalkyl substances (PFAS), and a revised Intergovernmental Agreement on a National Framework for responding to PFAS Contamination came into effect on 7 February 2020. The EPA continued to progress the national agreement via the Government endorsed PFAS Action Plan for Tasmania.

The PFAS Action Plan provides a collaborative approach to working with known and potential polluters to resolve PFAS contamination issues and details projects and regulatory actions aimed at increasing the EPA's knowledge of the amount of PFAS in the environment. A Progress Update, August 2019 was released by the EPA during the year, providing information on contaminated sites under investigation and detailing the progress on projects such as the ambient monitoring study being carried out in Tasmanian waterways.

Waste Management

The EPA participates in the national waste management agenda and contributes to and adopts agreed national approaches to waste management. In this way the Australian States and Territories can adopt consistent and cooperative responses to waste management problems. Involvement with national issues this year was primarily through the Heads of EPAs (HEPA) National Waste Working Group, which was established to focus on a number of waste management issues and HEPA National Chemical Working Group, which was established to focus on PFAS.

EPA staff have been involved in national issues including beneficial reuse of waste, interstate transport, and the management of some types of clinical waste. Of particular focus during 2019-20 was consideration of issues relating to the National Waste Policy Action Plan, the Council of Australian Governments' policy on controlling exports of several types of waste material, and regulatory issues in regard to container deposit schemes established in a number of States and Territories.

Waste data

On an annual basis the EPA collects, collates and provides a range of waste data to the Australian Government which is included in Australia’s Hazardous Waste in Australia Report the National Waste Report, and the National Environment Protection Council Annual Report. Waste data is provided to the EPA by councils, commercial enterprises and other waste and recycling facilities. Each year, annual industry reporting timeframes only allow for the aggregation of data from the previous financial year (2018-19).

Key aggregated data from the last 10 years is provided in Table 9.

Table 9. Waste generation, disposal and recovery rates for Tasmania over the past decade

Waste (Tonnes)	Generated	Landfilled	Recycled	Composted	Recovered
2009-10	523,954	386,803	96,740	40,411	26.2%
2010-11	602,429	445,553	112,945	43,931	26.0%
2011-12	661,398	460,467	159,633	41,298	30.4%
2012-13	696,861	471,921	182,193	42,748	32.3%
2013-14	636,625	398,603	200,380	37,642	37.4%
2014-15	648,964	415,443	194,170	39,350	36.0%
2015-16	636,342	412,864	189,635	33,848	35.1%
2016-17	736,741	415,863	242,366	78,512	43.5%
2017-18	771,308	439,600	258,211	73,496	43.0%
2018-19	749,219	402,921	259,829	86,469	46.2%

Over the last 10 years, the recycling and composting rates have both increased, resulting in an increase in the total recovery rate from 26 to 46 percent. Factors contributing to these trends are likely to include the improved data collection and reporting for recycling and composting in Tasmania, and actual increased rates of recycling and composting in Tasmania.

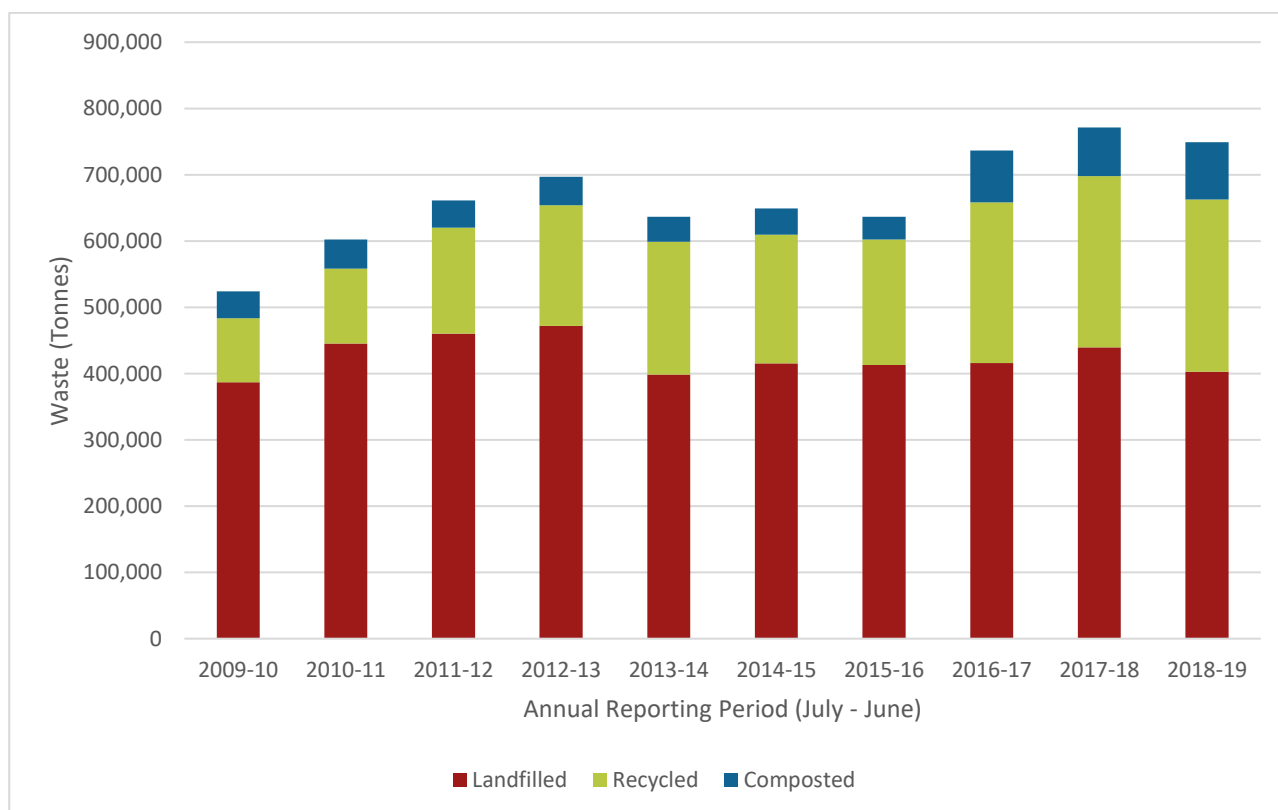


Figure 4. Waste landfilled, recycled and composted over the past decade

Of the 402,921 tonnes of waste disposed of to landfill during 2018-19 approximately 54.5 percent was generated by commercial and industrial sector, 36.7 percent was municipal waste, and 8.8 percent was construction and demolition waste. These results are typical of waste sector breakdowns for the last 10 years. A number of municipal councils including Launceston City, Glenorchy City, Hobart City, Meander Valley and West Tamar Councils collected Food Organics Garden Organics (FOGO) during 2019-20. FOGO data is expected to become available during the 2020-21 reporting period.

Regulation of waste disposal and treatment facilities

Waste depots are places that treat or dispose of waste, including larger landfills and composting activities. Regulation of waste depots involves applying environmental law and setting conditions in Permits to bring about best practice environmental management. The EPA assesses environmental performance of waste depots through audits and compliance assessment. When problems are identified, the EPA works with activity operators towards resolving the non-compliance and where necessary takes steps to enforce laws and permit conditions. This regulatory work is aimed to ensure waste depots and composting sites do not pollute soil, water, groundwater or air, or produce nuisance dust, noise or odour emissions.

During 2019-20, the EPA completed audits of waste depots, including Heybridge Asbestos Landfill and Heybridge Inert Waste Landfill, and Spectran’s waste treatment facility in Moonah.

Regulation of controlled waste

The EPA regulates *controlled waste*, sometimes referred to as *hazardous waste* in other Australian states and territories. Controlled wastes must only be stored, treated or disposed of under approvals issued by the EPA or council. Environmental Approvals (EA) issued under the Waste Regulations are a key instrument used by the EPA to authorise the storage, treatment and disposal of waste.

Of the EAs issued in 2019-20, 60 percent were for waste disposed to the Category C Cell at Copping. This facility, operated by Southern Waste Solutions, has been open since 2018 and is purpose-built for hazardous waste. The C Cell currently receives most of the State’s high level controlled waste.

Key indicators of the EPA’s activities in controlled waste are detailed in the Table 10.

Table 10. Waste and environmental approvals over the past six years

Number of Approvals and Authorisations	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Waste Approvals (letter)	73	55	58	93	86	113
Environmental Approvals Issued under Waste Regulations	49	50	34	28	50	99
Total	122	105	92	121	136	212

Regulation of controlled waste transporters

The EPA regulates controlled waste transporters to ensure they have the training, equipment and skills to ensure that environmental risk in transporting controlled waste is as low as possible. In Tasmania, controlled waste transporters’ conditions of operation are set out in a Controlled Waste Transport Registration.

During 2019-20, a project to develop a new registration system for Controlled Waste Transport Registrations was completed and the transfer of existing registrations to the new platform commenced. Controlled Waste Transport Registration data is summarized in Table 11.

Table 11. Controlled Waste Transport Certificates of Registrations Issued over the past six years

Number	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Registrations issued	14	15	11	14	4	12
Registrations revoked	0	2	0	4	0	3
Registrations varied	43	39	49	35	46	43
Total current registrations	126	139	150	160	164	173
Environmental exemptions granted	11	0	2	0	4	0
Current environmental exemptions	15	5	5	5	5	4

Regulation of interstate-controlled waste movements

The EPA oversees the transport of controlled waste into and out of Tasmania under the *National Environment Protection (Movement of Controlled Waste between States and Territories) Measure 1998*, adopted by agreement between Australian States and Territories. During 2019-20 a total of 5,500 tonnes of controlled waste were imported into the State under two Consignment Authorisations and there were 190 interstate transfers of Tasmanian waste (Table 12). Consignment Authorisations are no longer required for Macquarie Island and Antarctica, explaining the drop in this number in 2019-20.

Table 12: Number of Authorisations and Certificates for the interstate movement of controlled waste over the past six years

Number of Approvals and Authorisations	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Consignment Authorisations – Waste into Tasmania	26	29	29	30	27	2
Interstate Waste Transport Certificates – Waste out of Tasmania	445	269	235	239	221	190

Waste Projects

The EPA progressed several waste related projects including the statewide controlled waste stockpile review. Among the outcomes of the project was a recommendation for ongoing reporting of controlled waste storage.

During 2019-20 the reviews of both the *Environmental Management and Pollution Control (Controlled Waste Tracking) Regulations 2010* and the *Environmental Management and Pollution Control (Waste Management) Regulations 2010* were completed. The new *Environmental Management and Pollution Control (Waste Management) Regulations 2020* came into effect on 4 March 2020, replacing and combining both the *Waste Management Regulations 2010* and the *Controlled Waste Tracking Regulations 2010*.

The review of ‘Information Bulletin 105 Classification and Management of Contaminated Soil for Disposal’ is ongoing.

Activities

Enforcement and Incident Response

Compliance and Enforcement

The EPA enacts legislation which provides for protection of the environment from pollution and harm, under the *Environmental Management and Pollution Control Act 1994* (EMPCA), the *Litter Act 2007*, the *Pollution of Waters by Oil and Noxious Substances Act 1987* (PWONSA), and the *Plastic Shopping Bags Ban Act 2013*. A range of compliance tools are available under these Acts, and data is provided below for warnings, abatement notices, infringement notices, and completed prosecutions.

The major enforcement focus of the EPA is on regulatory compliance of specified industries and activities, listed in Schedule 2 of EMPCA, known as Level 2 activities. These industries are required to manage emissions and pollution, generated by their operations, in accordance with conditions prescribed in regulatory permits and Environment Protection Notices (EPNs). The EPA uses audit findings to identify non-compliance, and requires industries to monitor their own emissions and provide the data to the EPA for compliance and environmental performance assessments.

Level 2 industries are required to notify the EPA of incidents and events which cause or may threaten pollution or environmental harm. The community is also encouraged to report pollution events and complaints in relation to Level 2 activities through the EPA's 24-hour pollution reporting hotline (1800 005 171). Compliance and enforcement activities undertaken by the EPA in 2019-20 are shown in Table 13 where they are compared with previous four years.

Table 13. Environmental compliance and enforcement activities over the past five years

Activity Indicators	2015-16	2016-17	2017-18	2018-19	2019-20
Litigation completed by Court	2	-	1	1	1
Prosecutions by Infringement Notice	7	7	13	16	9
Written Warnings	6	6	9	8	2
Referred matters commenced	14	5	13	12	15
Litter – Infringement Notices issued	217	226	167	111	86
Litter – Written Warnings issued	8	4	3	6	0
Litter – Abatement Notices issued	1	-	1	1	1

During the year, the EPA prosecuted Huon Aquaculture Company Pty Ltd for one count of depositing a pollutant where it could reasonably be expected to cause material environmental harm and five counts of breaching an EPN. The Company was convicted of the offences, which occurred between August 2015 and May 2018, and was fined \$40,000. There were also nine Environmental Infringement Notices completed during the year; a list of these is provided in Table 14.

Incident reporting and enquiries

The EPA's environmental pollution reporting hotline (1800 005 171) is used by EPA-regulated industries, the community and other emergency response agencies to report incidents which cause or may cause pollution or environmental harm. Calls to the hotline accounted for around 30 percent of the total number of 1,527 reports received by the EPA this year, with the remainder received via email to Incident Response and EPA Enquiries, and by phone to the EPA. The duty officer coordinates provision of specialist advice, appropriate response activities, or referral to the relevant management authority. On average, about one-third of reports received by the EPA are referred to other emergency response agencies and councils.

Marine pollution

The EPA, as the jurisdictional authority for marine environmental emergencies in Tasmania, conducts investigations and initiates prosecutions into marine pollution events. Additionally the EPA, TasPorts, Tasmania Fire Service (TFS) and local councils each implement responsibilities in relation to preparing for and responding to marine pollution incidents, as described in the Tasmanian Marine Oil and Chemical Spill Contingency Plan ([TasPlan](#)).

Table 14. Prosecutions by Environmental Infringement Notice completed in 2019-20

Issued to	Date	Infringement	Fine
An individual from Northern Tasmania	Oct 2019	Dispose of controlled waste, adversely affect receiving waters	\$1,680
TasWater	Nov 2019	Deposit a controlled waste	\$1,680
An individual from central North Coast Tasmania	Jan 2020	Burn a prohibited waste (tyres)	\$840
An individual from North West Tasmania	Jan 2020	Burn a controlled waste (tyres)	\$1,680
TasWater	Jan 2020	Contravene a permit condition	\$1,680
TasWater	Mar 2020	Contravene a permit condition	\$1,680
TasWater	Mar 2020	Deposit a controlled waste	\$1,680
Pure Living Soil Pty Ltd	Apr 2020	Contravene a permit condition for composting facility	\$1,680
Pure Living Soil Pty Ltd	Apr 2020	Fail to notify Director of release of pollutant from composting facility	\$3,360

In November 2019, the EPA provided training for council emergency management coordinators and operational staff as preparation for responding to a significant oil spill event. The training focused on managing a shoreline clean-up which would be conducted by council-led teams, advice on forward operating bases, waste management and decontamination procedures.

During the year, the EPA received 30 reports relating to marine fuel and oil spills. Of these, there were more than 20 reports of fuel or oil in coastal areas and estuaries, but in most cases the source of the pollution was not able to be identified.

Between January and June 2020, the EPA responded to six incidents of sunken vessels at St Helens on the East Coast. All had the potential to cause environmental issues with sensitive flora and fauna, aquaculture and recreational activities occurring in and around the location of the vessels. The EPA worked with the vessels' owners, salvors and insurance companies to minimise environmental impact from oil and fuel leaking from the vessels.

The EPA responded to the sinking of a 12-metre vessel at Kings Pier Marina, Hobart in January 2020. With the assistance of TasPorts staff, the vessel was recovered with minimal loss of diesel to the surrounding environment. The EPA also responded to a number of fuel spills from vessel bunkering operations around the Hobart wharves, and follow up actions are being considered in collaboration with TasPorts.

Pollution and natural events

In January 2020, a member of the public reported sighting several hundred dead fish in the Scamander River at Scamander on Tasmania's East Coast. Investigation by the EPA and Break-O'Day Council concluded that a natural event caused the deaths of the adult bream. Almost all mass fish deaths reported to the EPA over the last 20 years have been due to natural causes, such as low levels of dissolved oxygen in unusually hot or cold water, trapped in a wedge of fresh water due to tidal movements, stranded in lagoons, and herding by predatory fish and marine mammals (dolphins).

In November 2019, the EPA received a report of foam and dead fish in Cooee Creek, in Burnie on the northwest coast. The EPA located the source of the pollution and is working with Burnie City Council to prevent future similar pollution events.

The EPA has responded to Tasmania Fire Service calls for advice on managing environmental impacts from the burning of tyre and other controlled wastes, which have been found to be deliberately lit.

Other common complaints and pollution reports received by the EPA during the past year relate to noise from forestry operations conducted during prohibited hours of use, smoke generated by backyard burns, domestic wood heaters and planned hazard-reduction burns, and sewer overflows during heavy rain events.

Activities

Savage River Rehabilitation Project

The Savage River Rehabilitation Project (SRRP) operates as a cooperative partnership between the EPA and the current operator of the Savage River Mine, Grange Resources, with the aim of reducing the environmental effects resulting from legacy mining operations between 1967 and 1996. The most significant issue is acid and metalliferous drainage (AMD), which has caused significant and ongoing environmental harm to the Savage River and its tributaries.

A major focus of the project is to promote the recovery of a modified but healthy ecosystem in the Savage River downstream of the mine, and to promote fish migration into the upper Savage River. The EPA oversees the SRRP and Chairs the SRRP Management Committee, which includes representatives from the EPA, Mineral Resources Tasmania (MRT) and Grange Resources.

The SRRP has two sources of funding: the SRRP Environment Protection Fund (EPF), which is cash held in trust provided by the previous mine operator when they relinquished the lease; and the Purchase Price Fund (PPF), which is the debt owed to the Crown by Grange Resources to the value of the original purchase price of the mine lease. Under the *Goldamere (Agreement) Act 1997*, the Company undertakes agreed remediation activities with payment made as a drawdown of the purchase price debt. The total funds available for the SRRP at 30 June 2020 were \$20,475,149, comprising \$12,713,515 in the EPF and \$7,761,634 from the PPF.

The most recent water quality review (2018-19) showed that copper concentrations in the lower Savage River have continued to decline over the past decade, and the findings of the last bioassessment (2011-12) reflect this ongoing improvement. Aquatic bioassessments have been conducted in 1995, 1998, 2002, 2008 and 2012, and one is planned for 2020-21.

Key activities of the SRRP during 2019-20 include the following:

- A direct selection procurement approach was implemented for the continued supply of water monitoring goods and services by Entura. A tender for the next three-year term was agreed for the purchase, installation and replacement of monitoring equipment and provision of data. Entura has held the contract for this water monitoring service for over 20 years and was responsible for installing the original telemetry equipment and data network.
- Grange continued to support SRRP activities and undertake agreed remediation activities, including monthly inspections of the North Dump Drain (NDD) and Old Tailings Dam (OTD), which are key sources of contaminants to Savage River. This year, Grange also provided a Comprehensive Surveillance Report for the OTD from engineering consultants, GHD. Such investigations are undertaken periodically (ie every three to five years) and are essential due to the OTD being of similar construction method to dams that have failed in Brazil. The comprehensive surveillance report recommends further stability assessment based on findings from the Brazil dam failure investigations. Grange also undertakes an annual weed management program through on-ground and aerial spraying, although the latter was suspended this year.
- A collection bund was built to collect seeps from the OTD and a pipeline constructed to divert this discharge to Grange's South Deposit Tailings Storage Facility (SDTSF). Although the SDTSF became operational in November 2018, planning continued this year to complete the connection of the pipeline to the new tailings facility. The plan is for the SDTSF to co-treat the OTD seeps and B Dump seeps along with Grange's current tailings until mine closure, with the system designed to work most effectively when the Main Creek Tailings Dam reaches its final level.
- The EPA continued its monthly water quality monitoring, with sample analysis completed by Analytical Services Tasmania. Grange undertook the field sampling in April and May on behalf of the EPA, when COVID-19 restrictions limited intrastate travel.

- A draft SRRP Strategic Plan 2020-23 was prepared and is due to be finalised in 2020. It builds on previous remediation activities undertaken since the SRRP commenced in 1997, and is structured around the SRRP goals, objectives, strategies, priorities and actions.
- A proposal to consider adopting new models to set and monitor targets for zinc, manganese, cobalt and nickel (additional metals of potential concern) was posed by consultants Hydrobiology in 2018, following their review of toxicological test work from 2001-02. The SRRP intends first testing the applicability of biotic ligand and chemical speciation models, which have been developed in the USA and Western Europe, to local conditions at Savage River through a statistical analysis using over 20 years of aquatic ecosystem data collected by the SRRP.
- The EPA Board approved funding for a preliminary research project to investigate the cobalt content of tailings in the OTD, to ascertain whether there is a case for further research into the feasibility of mining the old tailings for cobalt. The OTD currently accounts for about 50 percent of the legacy AMD entering the Savage River. Hence, if cobalt recovery proved economic, its extraction could finance the remediation of the OTD and offer the best long-term solution for dealing with legacy AMD and dam safety issues. Grange plans to undertake the research project in conjunction with the University of Queensland, commencing in the summer of 2020-21.
- South Lens is a disused mine pit lake used for the passive treatment of AMD from a number of sources at Savage River (both legacy and current mining operations). As a crucial element of the overall strategy for AMD treatment at the site, the SRRP is seeking to gain a better understanding of its neutralisation capacity over the long term. A project to investigate these aspects of South Lens has been scoped, and proposed as a joint undertaking with Grange.

Activities

Air Quality Management

Reference Level Monitoring

The key air quality issue in Tasmania relates to smoke pollution from sources such as domestic wood heaters, planned burning and bushfires. In accordance with the requirements of the *National Environment Protection (Ambient Air) Measure 2015* (Air NEPM), the EPA has continued to measure ambient air particles PM₁₀ and PM_{2.5} (particles less than 10 and 2.5 microns in diameter respectively) at its three Reference Level Stations at Hobart, Launceston and Devonport. This reference level monitoring is undertaken in accordance with the relevant Australian Standards and incorporates the strict quality assurance measures necessary to meet National Association of Testing Authorities, Australia (NATA) accreditation requirements.

Figure 5 presents PM_{2.5} data for Launceston (Ti Tree Bend air monitoring station) showing the number of days in each year since 2006 to the end of 2019 on which the national 24-hour standard for PM_{2.5} of 25µg/m³ was exceeded. The graph has been colour coded to reflect the seasons, and shows that generally these instances arise from bushfires in summer, from planned burns in spring and early autumn, and from residential wood heater smoke in late autumn and winter. In 2016 there were a number of large bushfires in the north and northwest of the state resulting in a number of summer-time exceedances, while winter 2016 was windier and warmer than usual, resulting in a reduced number of days in winter above the PM_{2.5} standard compared to other years.

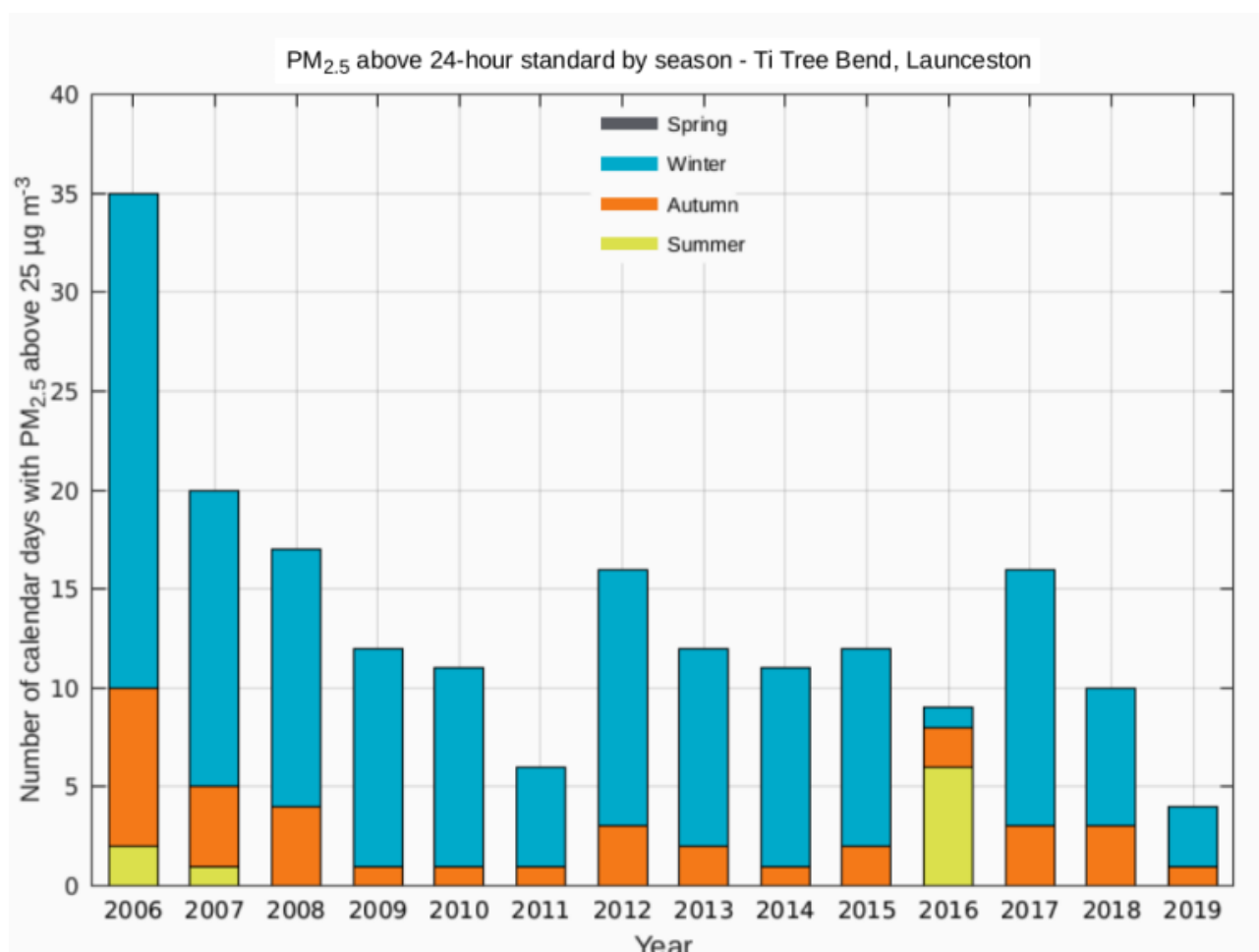


Figure 5. The number of days for each year above the national 24-hour PM_{2.5} for Launceston

Performance against National Air Quality Standards set in the Air NEPM

Summaries of the reference data for 2019 are presented in Table 16 below:

Table 16. Reference level monitoring performance in 2019

Station	Air quality monitoring results
Launceston, Ti-tree Bend	<ul style="list-style-type: none"> There were no measured exceedances of the 24-hour PM₁₀ national standard of 50 µg/m³. The annual average PM₁₀ was 16.9 µg/m³ which met the annual PM₁₀ national standard of less than 25 µg/m³. The 24-hour PM_{2.5} national standard of 25 µg/m³ was exceeded on 4 days in Launceston. The annual average PM_{2.5} concentration of 7.6 µg/m³ meets the annual PM_{2.5} national standard of less than 8 µg/m³. Overall, recent years in Launceston show a considerable improvement on the 35 exceedances reported in 2006 when PM_{2.5} monitoring was first introduced.
Hobart, New Town	<ul style="list-style-type: none"> There were no measured exceedances of the 24-hour PM₁₀ national standard. The annual average PM₁₀ was 11.6 µg/m³, which is below the annual PM₁₀ national standard of 25 µg/m³. However as the first quarter data availability rate of 33% is below the required 75% rate, full compliance with the requirements of the Air NEPM was not met. The 24-hour national standard for PM_{2.5} was exceeded on 5 days in Hobart. The annual average PM_{2.5} concentration of 6.5 µg/m³ met the annual PM_{2.5} national standard of 8 µg/m³.
Devonport	<ul style="list-style-type: none"> There were no measured exceedances of the 24-hour PM₁₀ standard recorded. The annual average PM₁₀ was 17.4 µg/m³, which met the annual PM₁₀ national standard of less than 25 µg/m³. The 24-hour PM_{2.5} concentrations measured in Devonport exceeded the PM_{2.5} national standard on one day. The annual average PM_{2.5} concentration of 7.0 µg/m³ met the national annual standard of 8 µg/m³.

Baseline Level Monitoring

The BLANKET network (Base-Line-Air-Network-of-EPA-Tasmania) measures indicative level ambient PM_{2.5} and PM₁₀ particle concentrations, along with meteorological data, at 35 fixed stations around Tasmania. The BLANKET monitoring instruments are calibrated against the reference level instrumentation and the particle concentration data is reported in near real-time to the EPA website with a data availability rate of greater than 95 percent across all stations.

Table 17 shows the winter period BLANKET PM_{2.5} monitoring results for the past five years. The table shows, for the winter period (1 May to 31 August) of each year from 2015 to 2019, the mean PM_{2.5} concentration in µg/m³ and the number of days on which the measured PM_{2.5} concentrations at each BLANKET station was above the 24-hour national standard of 25 µg/m³. Note that the Scottsdale station was moved into the town centre from a more rural location in early 2016.

The 'top' five towns in Tasmania for winter wood smoke pollution in 2019 were Longford, Hadspen, Perth, New Norfolk, and Westbury. This information is made available to local councils and is used along with air quality monitoring data from mobile surveys (Travel BLANKET) and from smoky chimney surveys, to better understand the issue of poor winter-time air quality in some Tasmanian communities and urban areas.

This data is used to inform the estimation of population exposure to air pollution in Tasmania, and as a basis for the EPA's annual Burn Brighter this Winter (BBtW) education campaign, which is delivered in collaboration with councils and is aimed at reducing smoke emissions from domestic wood heaters. In 2019-20 two wood heater public information sessions were conducted in association with councils at Latrobe and Queenstown. Information was also placed in Tasmania's major printed media and in local newspapers.

As part of the BBtW campaign and in support of work by the Glenorchy City Council, the EPA deployed a small 'babyBLANKET' air monitoring station at a residential address in the winter of 2019. The investigation was in response to a complaint from the resident in relation to smoke from a neighbouring property. A number of instances of very high and very variable PM_{2.5} concentrations were observed at the residence, which were indicative of a nearby and spatially small smoke source, consistent with one of a small number of chimneys in the area. Also of interest in the monitoring data collected was a clear signature of the

presence of larger particles (over 2.5µm in diameter) in the smoke, which is very unusual in smoke from domestic wood heaters and indicates that materials other than wood were being burnt at these times.

The EPA also undertook air monitoring in 2019-20 at a State Government office in Ulverstone following concerns regarding wood smoke levels during business hours. These data indicated smoke levels in the day were generally low and were comparable to levels in other areas of town. The EPA also undertook some ambient air monitoring in response to a request from the Tasmania Fire Service to support their training activities.

Table 17. PM_{2.5} Monitoring results for BLANKET stations for winter (1 May to 31 August) for the past five years

Station	2015		2016		2017		2018		2019	
	No. days	Mean µg/m ³	No. days	Mean µg/m ³	No. days	Mean µg/m ³	No. days	Mean µg/m ³	No. days	Mean µg/m ³
Bream Creek	0	2.0	0	2.1	0	2.4	0	4.4	1	4.3
Campbell Town	0	7.3	0	7.4	2	10.7	1	9.3	0	8.7
Cygnets	N/A	N/A	0	4.0	0	5.1	0	4.8	0	3.8
Deloraine	N/A	N/A	5	11.0	13	14.0	12	12.5	3	10.4
Derby	0	3.8	0	2.9	0	4.8	0	4.3	0	3.9
Devonport	0	8.0	0	6.1	0	8.6	1	7.8	1	8.3
Burnie	0	2.1	0	1.7	0	2.1	0	2.2	0	1.9
Exeter	0	4.1	3	6.6	0	3.8	0	3.9	0	3.8
Fingal	0	3.6	0	2.9	0	3.3	0	2.9	0	2.3
George Town	0	4.2	0	5.3	1	6.1	0	5.4	0	5.4
Gretna	1	4.2	0	3.3	0	4.0	0	3.1	0	3.0
Geeveston	28	15.5	16	12.6	16	15.6	15	13.2	8	10.2
Glenorchy	N/A	N/A	1	7.3	1	7.8	1	6.6	0	5.4
Hadspen	39	19.5	18	11.9	43	21.1	37	18.1	31	17.2
Hobart	2	7.7	1	5.4	0	5.9	1	5.6	0	4.3
Huonville	5	10.5	2	9.9	0	10.9	1	8.3	0	6.9
Judbury	0	1.8	0	1.4	0	1.8	0	1.7	0	1.6
Lilydale	0	6.7	0	6.4	0	8.2	0	6.7	0	6.7
Launceston	15	12.1	3	9.1	13	14.1	1	8.0	0	7.8
Longford	38	20.1	30	16.6	40	21.6	45	22.0	34	17.5
Mornington	0	3.8	1	3.1	2	4.3	0	3.5	0	2.7
New Norfolk	41	19.2	33	16.7	46	22.1	27	16.6	17	13.9
Oatlands	N/A	N/A	2	9.2	1	9.4	1	9.2	1	8.2
Perth	36	17.8	31	15.8	37	20.1	30	16.9	11	10.6
Scottsdale*	0	2.1	1	9.8	15	15.5	6	11.1	2	10.4
Sheffield	1	5.4	0	3.6	0	5.3	2	6.4	3	7.1
St Helens	0	1.6	0	1.8	0	1.8	1	2.4	0	1.6
South Launceston	19	12.2	4	8.2	9	12.7	4	9.7	3	9.0
Smithton	0	5.8	0	4.9	0	7.0	0	6.9	0	3.8
Triabunna	N/A	N/A	0	7.0	11	13.6	13	11.7	0	5.2

Station	2015		2016		2017		2018		2019	
	No. days	Mean $\mu\text{g}/\text{m}^3$	No. days	Mean $\mu\text{g}/\text{m}^3$	No. days	Mean $\mu\text{g}/\text{m}^3$	No. days	Mean $\mu\text{g}/\text{m}^3$	No. days	Mean $\mu\text{g}/\text{m}^3$
Westbury	23	14.7	8	11.8	15	15.2	19	14.9	20	13.9
West Ulverstone	0	4.4	0	4.0	0	4.7	0	4.5	1	4.3
Wynyard	0	8.3	1	9.7	4	11.7	0	8.2	1	8.3
Queenstown	N/A	N/A	N/A	N/A	N/A	N/A	4	12.1	4	9.9

Car-based Smoke Measurement Surveys

The EPA's Air Section continued to use the 'Travel BLANKET' car-based smoke measurement instrument to create spatial maps of smoke in Tasmania. Further Travel BLANKET work is planned in areas that have not yet been surveyed.

Bushfires – Summer 2019-20

Summer 2019-20 saw an unprecedented level of bushfire activity in south-eastern Australia. Fortunately Tasmania escaped the very large fires that impacted on the eastern mainland states, though there was some significant fire activity in the State, such as in the Fingal Valley. However, the smoke from the mainland bushfires reached Tasmania on several occasions.

Figure 6 shows the Suomi satellite image from the 13 January 2020. Large smoke plumes from the mainland can be seen moving towards and reaching northern Tasmania. Smoke from a fire in the Fingal Valley, south east of Launceston, can also be seen.

As part of the EPA's response to the smoke from the bushfires, and in collaboration with the Department of Health and Human Services (DHHS) and the Northern Regional Incident Management Team, air monitoring stations were deployed at Swansea, St Marys, and Bicheno during the fires to add to the monitoring network cover. These stations reported particle-concentration data in real-time to the EPA website.

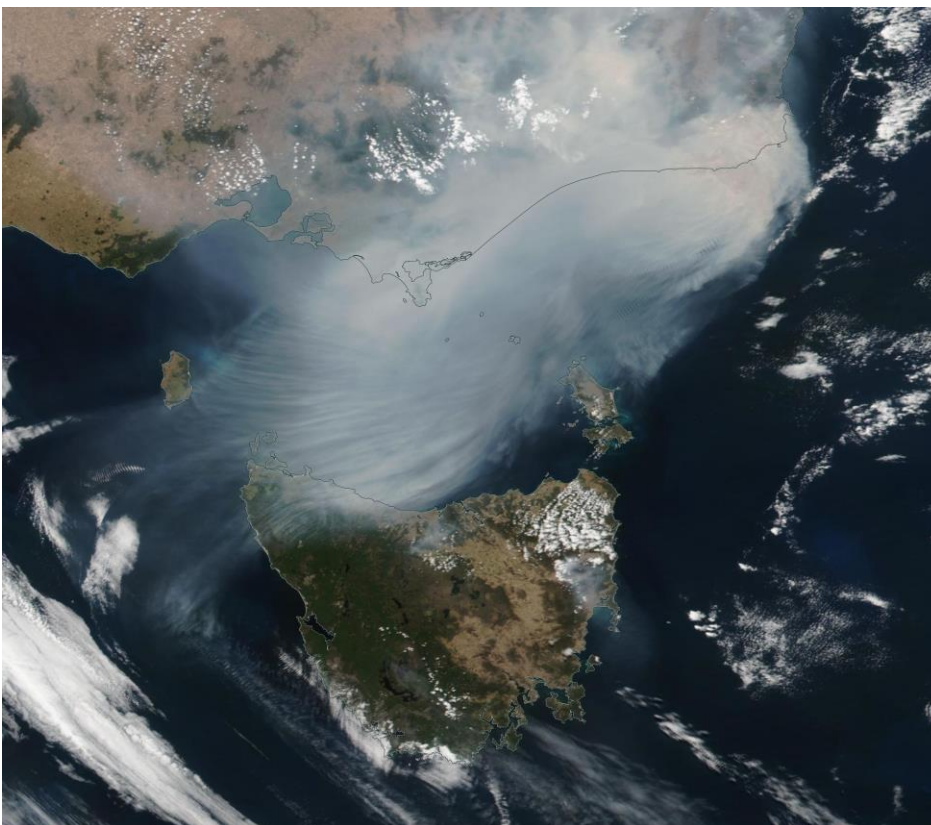


Figure 6. Suomi satellite image of south-eastern Australia from 13 January 2020, showing smoke plumes from bushfires burning on the mainland and in Tasmania

Monitoring of sulphur dioxide levels in the Hobart Port area.

In early 2017 a monitoring station was installed on the CSIRO wharf in the Hobart Port area following public concern regarding emissions from cruise ships. The monitor measures ambient sulphur dioxide (SO₂) concentrations and meteorological parameters, and reports to the EPA website every ten minutes. Results of SO₂ monitoring at the station during 2019-20 indicate that ambient SO₂ concentrations in the vicinity of the port continued to be well below the relevant national standards. The potential impact of SO₂ emissions from cruise ships has been significantly reduced following the introduction, on 1 January 2020, of an international regulation that requires all ships to use fuel oil with sulphur content not exceeding 0.5 percent. Additionally, due to COVID-19, cruise ships have not been permitted to visit Tasmania since 15 March 2020.

Advice on industrial activities and air dispersion modelling

The *Environment Protection Policy (Air Quality) 2004* sets out a management approach for the EPA, other regulatory authorities and industry for maintaining and improving Tasmania's air quality. Air emissions from existing or proposed industrial facilities are assessed against the criteria provided in the policy. For industrial assessments undertaken by the EPA, the Air Section provides advice on air quality management issues and on air dispersion modelling, often related to potential odour issues. In 2019-20 advice was provided to EPA assessment officers in relation to a variety of facilities which included fish farming and fish processing facilities, wood processing plants, abattoirs, rendering plants, quarries, composting facilities and wastewater treatment plants. Advice was also provided to EPA officers on air quality matters related to the regulation of existing facilities including a cement kiln, a zinc smelter, a pyrethrum extraction facility and a West Coast mine. Additionally, advice was given to local councils in Devonport and Hobart on several environment management issues associated with Level I activities not regulated by the EPA.

Activities

Water Quality Management

Water quality management in Tasmania is governed by the *State Policy on Water Quality Management (1997)* and provides for the implementation of the National Water Quality Management Strategy (NWQMS), which is part of the Council of Australian Governments' (COAG) Water Reform Framework.

Key services provided by the Water Section are:

- Provision of advice and support on the application of the State Policy and NWQMS for water quality management, and for the assessment and regulation of activities that may impact on water quality
- The development of water quality technical information and guidance, and input into strategic planning and policy for water quality at a state and national level
- The maintenance of a long-term statewide water quality database to improve baseline knowledge of environmental water quality, and to support water quality management and regulatory action.
- The conduct of baseline and strategic water quality monitoring programs, including the maintenance and operation of the EPA motor vessels, the Liena and the Monitor.

Water quality advice and support is provided to the EPA Board; the assessment, regulatory and enforcement sections of the EPA; other government agencies; state and national technical committees; emergency response requirements; and to the public.

During 2019-20, the Water Section provided technical advice and assistance in relation to the following:

- Assessment of the proposed expansion of Huon Aquaculture Company's fish processing activity at Parramatta Creek, and Tassal's fish hatchery and wastewater reuse activity at Hamilton
- Ongoing advice is being provided in relation to the assessment of significant infrastructure projects, mining proposals, a proposed abattoir and a proposed composting facility
- The Salmon Environmental Management Section was assisted in the development of licences for inland fish hatcheries at Cressy and Targa
- Advice regarding acid and metalliferous drainage was provided to regulators in relation to the implementation of a waste rock 'sorter' at the Renison Mine and closure of the Mount Bischoff mine site
- Advice to regulators in relation to metal recycling in Launceston, Tassal fish processing at Dover, fish waste rendering wastewater reuse at Triabunna, and municipal wastewater ambient monitoring plans and discharge management assessments
- Specialist support was provided for several incident investigations undertaken by the EPA, including a diesel spill onto waters of the D'Entrecasteaux Channel, discharge of untreated salmon net washing wastewater to land, and a chemical spill into Cooee Creek near Burnie.

The Water Section represents the EPA on technical advisory bodies including: the NWQMS Water Quality Policy Sub-committee; the Tamar Estuary and Esk Rivers Scientific and Technical Committee; on technical groups for Fisheries Research and Development Corporation funded projects; and through the Sustainable Marine Research Collaboration Agreement.

The Section has developed water quality default guideline values (DGVs) consistent with the NWQMS framework to assist water quality managers and regulatory officers. The State now has DGVs for all jurisdictional waters for freshwater, estuarine, and coastal and marine ecosystems, and interim DGVs for groundwater. The Section is continuing to develop technical explanatory documents in relation to water quality guidelines.

The EPA Water Quality Database is a repository for water quality data collected through regulatory compliance and other environmental monitoring programs including the Broadscale Environmental Monitoring Programs relating to current and potential marine farming areas. Efforts to improve internal

data capture are ongoing with the development of systems for regulatory data import. This data is used in support of regulatory activity, and through data sharing agreements, relevant data can be shared with other bodies, such as IMAS and CSIRO in support of Salmon Farming industry research.

The Water Section is responsible for carrying out a number of ambient monitoring programs throughout the State. In relation to salmon farming, water quality monitoring continued at Macquarie Harbour, Okehampton Bay and Mercury Passage, and in Storm Bay. Monitoring in Macquarie Harbour has confirmed that the average dissolved oxygen levels for middle and bottom waters remain low with values significantly below the long term 2000-2010 average. This information is being used to assist in evaluating sustainable salmon stocking rates.

Water Section staff have supported the sampling and data management aspects of work conducted by the EPA in exploring the concentrations of PFAS in Tasmanian waters, sediment and biota. In particular, the Water Section is coordinating the statewide background monitoring of PFAS in waterways and estuaries required under Action 6 of the PFAS Action Plan for Tasmania.

Specialist support is also being provided to maintain capabilities to respond to marine pollution events such as oil spills. This includes maintaining the Tasmanian Oil Spill Response Atlas and updating the Marine Environment Prioritisation Project (MEPP), which involve incorporating a review of current shorebird data, sensitivity data for aquaculture and extending these updates to include all the Tasmanian coastline. This work is integral to the preparation of oil spill First Strike plans for a number of areas identified as having a high priority for protection using the MEPP criteria.

Activities

Noise Management

Noise monitoring

The EPA carries out noise surveys to assess the noise impact of potentially noisy activities and to provide reference measurements for reviewing changes to the acoustic environment. The surveys are currently based on high-quality audio recordings and typically last one to two weeks.

During 2019-20, 17 noise surveys were carried out. Of these, four surveys were carried out within the Bell Bay industrial area and one survey on the western side of the Tamar River, following on with the investigation of noise in the upper Tamar Valley. Of the remainder, one survey related to a local council heat pump problem and another to a complaint regarding noise from fish farming activities.

The locations of the surveys conducted in 2019-20 along with the 292 previous surveys prior to 2019 are presented in Figure 7.

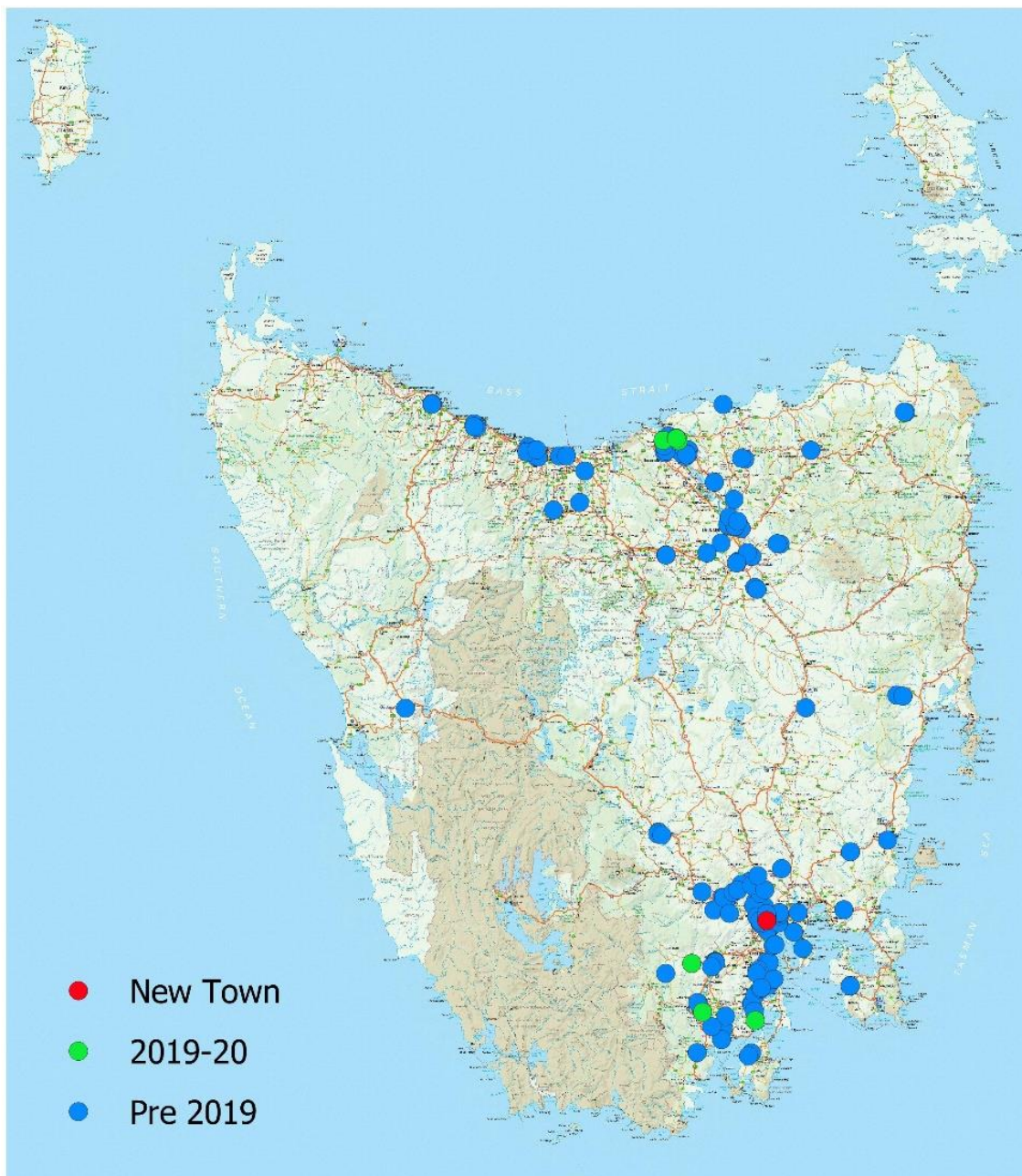


Figure 7. Locations of noise surveys undertaken by the EPA in 2019-20 and prior

Noise monitoring during COVID-19

Nine of the 2019-20 surveys coincided with part of the COVID-19 lockdown and were carried out at a site in New Town, Hobart, about 80 metres from the Brooker Highway. These surveys were undertaken opportunistically to investigate the influence of possible reduced traffic flow due to COVID-19 on noise levels in suburban areas.

Noise surveys have been carried out at this site since 2004 and the general long term trends were reported in the 2016-17 Annual Report. For the purposes of comparison these results are provided again in Figure 8, while the corresponding results for the current surveys, which span the period 2 April to 16 July and are provided in Figure 9.

Comparison of Figures 8 and 9 indicate that the COVID-19 noise levels fit within the general spread of results measured over the past 16 years. Although the variations in noise levels during the COVID-19 period are relatively small there appears to be an increase in levels for day, evening and night times.

Given the significant change in traffic flow during the COVID-19 period, it is surprising that the variations in day, evening and night-time levels is only in the order of about 3 dB(A). This change would be generally consistent with a doubling in traffic from the beginning of April to the end of June. Other features of the traffic may have influenced the noise levels. With an overall reduction in vehicles, there may have been an increase in vehicle speed due to reduced congestion and the proportion of commercial and heavy vehicles may have increased. Both these influences will tend to increase traffic noise, all else being equal.

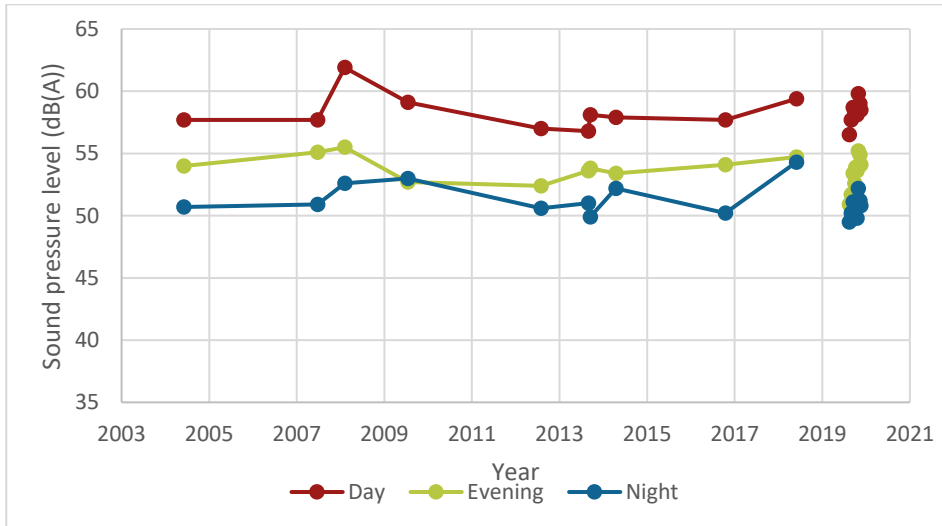


Figure 8. Long term noise levels measured at New Town

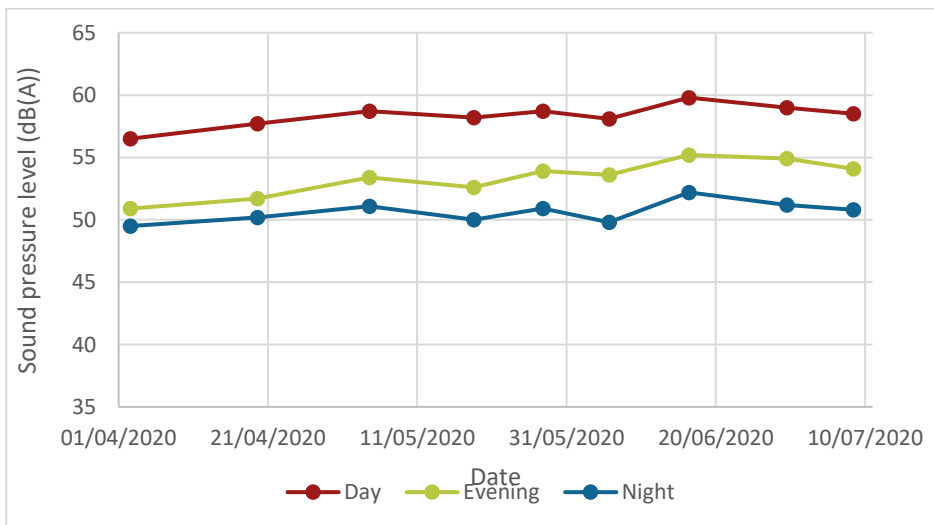


Figure 9. Noise levels at New Town during COVID-19

Activities

Communications and Community Engagement

Sponsorship

The EPA undertakes a sponsorship program using money obtained through the payment of environmental fines into the Environment Protection Fund (EPF), which is established under EMPCA. The EPF is designed to support projects that protect, restore or enhance the environment, reduce pollution and promote the sustainable use of resources. The money is used to support initiatives and programs that align with the purpose of the Fund with approval by the EPA Board.

In 2019-20, the Board continued as the naming rights sponsor of the EPA Sustainability Award, one of the Tasmanian Community Achievement Awards. This is the second year of a three-year sponsorship agreement valued at around \$11,000 per year and the seventh consecutive year of the EPA Award. It is designed to showcase innovative Tasmanian businesses that have a commitment to sustainability, particularly in regard to clean production technology, energy and water conservation, resource efficiency, waste minimisation, reuse and recycling. The Award was won in 2019 by Lion Dairy & Drinks of Lenah Valley for their commitment to cleaner production, waste minimisation and environmental sustainability.

The EPA is also committed to building partnerships with the Local Government Association of Tasmania and with the Environmental Health Association (Tas) Inc, through ongoing sponsorship of their flagship events. In 2019-20, the EPA sponsored the LGAT Annual Conference and the EHA (Tas) conference, providing \$2,100 and \$1,364, respectively.

The Board continued to contribute \$4,000 for the annual Kids4Kids environment conferences coordinated by the Department of Education. These were held in Hobart, Launceston and Burnie, and the EPA funding made it possible for regional schools to attend. Similar to recent years, the conferences were attended by approximately 1,000 children. This was the 10th consecutive year of Kids4Kids, and encouraging testimonials are arising from children (who are now in their late teens) about the success of K4K in inspiring them to take leadership on environmental issues, act sustainably and pursue study and careers in the environmental area.

Education and promotion

There is a strong public concern about waste and recycling, and that is an area that the EPA focusses on as an educational priority. In line with the Government's commitment to be the tidiest state by 2023, the EPA continued to develop and participate in educational activities about litter.

The EPA completed teaching resources on litter, designed for teachers of Grade 2 students, aligned with the Australian Curriculum. These resources are part of a suite of teaching resources developed by the EPA. Drafting of resources on food waste and a resource for Kinder-Grade 1 teachers commenced in 2019-20.

The EPA collaborates with other organisations on litter education. The EPA, Keep Australia Beautiful (KAB), Department of Education and the Parks and Wildlife Service collaborated on a display and conducted educational sessions about marine litter over two days at the Festival of Bright Ideas in Science Week in August 2019, which was attended by 2,112 students, 90 teachers and parents, and 8,172 members of the public.

The EPA had a presence at other National Science Week, community and school events, and assisted with the organisation and delivery of the three annual regional primary school Kids4Kids conferences, facilitating the lunchtime swap meets and hands-on workshops on reducing waste and litter.

The EPA facilitated the formation of a statewide waste education network, with an inaugural meeting in May 2020. Objectives include ensuring clear and consistent messaging e.g. about recycling, collaboration on projects and the development of a statewide waste education strategy, with the EPA as lead agency.

Burn Brighter this Winter

Domestic wood smoke is high in certain areas in Tasmania according to EPA air monitoring. The EPA ran its annual Burn Brighter this Winter (BBtW) campaign again this year to raise awareness of the efficient operation of domestic wood heaters so as to minimise this smoke pollution. A statewide print media campaign was run in the Tasmanian daily newspapers and selected community newspapers, and a strong

presence on the EPA website was maintained throughout the cooler months. *Guidelines for Heat Pumps and Air Conditioners* were produced to clarify the responsibilities of property owners, installers and local councils, and a range of other resources were made available on the website for councils to assist them in raising awareness and managing smoke complaints. These included awareness raising materials such as postcards and brochures about acceptable smoke emissions, wood heater operation, and the regulations in relation to acceptable smoke emissions.

The BBtW campaign is a component of the Domestic Smoke Management Program which is managed by the Air Quality Section of the EPA. It fits within the National Clean Air Agreement requirements by seeking to improve knowledge, education and awareness to help empower communities to better deal with air pollution, and reduce particulate matter entering the atmosphere from poorly operated wood heaters.

Litter and rubbish dumping

During the latter part of 2019 the Litter and Dumping Management System (LaDMS) was launched. An extensive consultation process with local and state government partners was undertaken throughout its development, and information sessions were delivered to help local government staff operate the system toward the end of 2019. LaDMS enables local councils and other land managers to manage litter and dumping complaints from complaint to completion. The engagement with councils particularly, was vital to ensure that LaDMS met their needs and enhancements were made at their request. LaDMS interfaces with Report Rubbish which is a smart phone adaptable web application that allows the public to report litter and illegal dumping. Report Rubbish was launched in October 2019.

Local government engagement

Local Government is a vital part of the environmental regulation system in Tasmania as local councils issue permits, regulate Level 1 activities, and respond to many environmental complaints from the public including those relating to noise and smoke.

Last financial year the EPA Board provided funding for the Environmental Health Workforce Development Project along with the Local Government Association of Tasmania, the Department of Health, and the University of Tasmania. The project partners, along with the Environmental Health Association of Tasmania, under the research leadership of the University, have been working collaboratively to better understand the range of issues impacting on the sustainability of the environmental health profession in Tasmania. The EPA Board is watching progress with interest and looks forward to receiving the final report. Environmental Health Officers are often at the frontline of environmental regulation at local government level and the Board acknowledges that they are an important component of the system of environmental regulation in Tasmania.

Government support

The EPA provides advice and support, and undertakes work on behalf of the State Government, as required. EPA Officers advised and supported collaboration with Local Government (through LGAT) and the waste and recycling industry on the State Government's draft Waste Action Plan, as well as national issues, such as the COAG waste export bans. Local Government and the resource recovery sector have also been closely engaged in the ongoing development of the waste levy and Container Refund Scheme initiatives through membership of key advisory and governance groups. EPA Tasmania has been implementing the Government's commitment to reduce littering and clamp down on illegal rubbish dumps in Tasmania with the development and launch of Report Rubbish and the Litter and Dumping Management System to identify and manage reports of litter and dumping. The EPA has also undertaken compliance activities arising from such reports of illegal waste disposal.

Public information

The EPA strives to demonstrate transparency in decision making and is committed to responding to public interest on particular issues through information published on its website and broadcast via media releases. The outcome of environmental assessments made by the Board or Director (under delegation from the Board) are routinely broadcast as media statements and published as news stories via the EPA website. The minutes of the Board's meetings are published electronically as EPA Board Communiqués, and decisions and determinations made by the Director regarding ongoing industrial activities are also communicated via the website.

The EPA receives enquiries and requests for information on particular issues of interest from members of the public; non-government organisations; the media; and political parties. Where possible, the relevant information is actively disclosed, or when not appropriate, may become an assessed disclosure (RTI) under the *Right to Information Act 2009*. During the 2019-20 financial year there were 23 RTI requests referred to the EPA in relation to salmon farming; mining; wind farms; and environmental site assessment reports.

In the past year, the EPA produced 27 media statements and responded to 74 enquiries from the media (refer Table 18). Reports of diesel, sewage, wastewater and toxic spills, and the follow-up investigations of these by the EPA, gave rise to the largest number of media enquiries this year. This was followed by the issues of salmon farming assessment and regulation; water quality at southern beaches and wastewater treatment impacts in the Derwent Estuary; litter, illegal rubbish dumps and marine debris; air quality and the impact of bushfire smoke; mining and quarry assessment and regulation; general environmental regulation by the EPA; wind farms; recycling and waste management; abandoned vessels and sinking boats; vehicle emissions; and PFAS contamination.

Table 18. Number of EPA news stories and media inquiries this year compared with the previous five years

Year	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
News Stories	30	39	53	39	38	27
Media Inquiries	-	55	152	99	62	74

Activities

Finances

Financial information relates to the operation of the EPA, which consists of a Board of four independent members and the Director, and supported by the activities undertaken by EPA Tasmania, DPIPWE. In 2019-20, EPA Tasmania's operating budget was \$11,516,713 made up of \$10,547,239 from the Consolidated Fund and \$969,474 provided by the Salmon Industry by payment of a levy under section 279 of the *Living Marine Resources Management Act 1995*. Of this, \$9,920,646 was allocated to branches that fully or partially support the EPA.

Remuneration of Board Members

Total payments for the EPA Board in 2019-20 were \$128,692, which includes members' remuneration and associated meeting and administrative costs. This figure is excluding remuneration paid to the EPA Director, which is reported in the DPIPWE Annual Report. The Chair of the EPA Board is paid \$39,349 per annum and the members are paid \$23,067 per annum. Deputy members are paid sitting fees as required according to their attendance.

Environment Protection Fund

The Environment Protection Fund (EPF) was established under EMPCA. The balance of monies in the Fund at 30 June 2020 was \$287,853.45. A total of \$58,004.07 was received in 2019-20 in relation to Infringement Notices and Fines. Expenditure for the year was \$27,318.64. This consisted of a Grant to the Department of Education for the Kids4Kids Conference (\$4,000), sponsorship of the Tasmanian Community Achievements Sustainability Award for 2019 and 2020 (\$19,855), Local Government Association Economy Trade Exhibition Booth (\$2,100) and sponsorship of the Environmental Health Australia (Tas) Inc Conference (\$1,363.64). The EPF is audited under the DPIPWE accounts.

Fee Remissions

Annual and Special Fee Remissions are approved by the EPA Board or the Director via delegation. The number of Special and Annual Fee Remissions granted by the Board between 1 July 2019 and 30 June 2020 are shown in Table 19.

Table 19. Fee remission applications granted and denied, and total cost of remissions in 2019-20

Fee Remissions	Applications Granted	Applications Denied	Total Fee Amount
Special Fee Remissions	9	3	\$160,113
Annual Fee Remissions	7	0	\$58,676

