Government of **Western Australia**
Department of **Water and Environmental Regulation**

We're working for Western Australia.

Annual report 2018–19

Department of Water and Environmental Regulation

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Disclaimer

This publication is available on our website www.dwer.wa.gov.au or for those with special needs it can be made available in alternative formats such as audio, large print or braille.

We acknowledge the traditional custodians of the land upon which we live and work, and pay our respects to their elders past and present. We recognise the practice of intergenerational care for country and its relevance to our work. We seek to listen, learn and build strong partnerships. We aim to provide genuine opportunities for Aboriginal people within our workforce and through our business.

Director General's message

Thank you for reading the Department of Water and Environmental Regulation's 2018–19 annual report. It reflects our second full year of operation which has seen change, consolidation and continued delivery of the government's priorities and our services.

One of the biggest changes for our department in 2018–19 was the relocation of our headquarters and some 700 staff from the Perth central business district to Prime House in Davidson Terrace, Joondalup. Despite this significant change for our staff and stakeholders, I am very pleased that we continued to deliver on our services and priorities consistent with our vision of a healthy environment and secure water resources, valued by all, to support a liveable and prosperous Western Australia. I would like to take this opportunity to again acknowledge the Department of Finance for its role in leading and managing the commissioning of our excellent new headquarters and our move.

Over this past year, we have continued to work to fulfil the government's 'one-stop-shop' vision for the department, streamlining water and environmental approvals, improving services to the community and planning for some of the biggest challenges facing our state, such as climate change.

We do not do this work in isolation, however. We work closely with other stakeholders to seek and share information that strengthens our regulatory, policy and guidance roles. I thank our partners and stakeholders across state and local government, industry, academia and the community who have continued to work with us to find innovative solutions to the state's environmental and water challenges.

I am proud to lead an organisation that is committed to meaningful engagement with traditional owners across Western Australia. This year saw the launch of our first *Reconciliation action plan*, the continuation of our Aboriginal Water and Environment Advisory Group and our efforts to protect the extraordinary Murujuga rock art in the Pilbara, which has immense cultural and spiritual significance to Aboriginal people.

While this report provides a thorough account of our achievements and the breadth of our work, some items of note include:

- As part of the government's commitment to sustainable economic development in the Fitzroy River catchment, we will develop a Fitzroy water allocation plan in 2020. This will provide for the long-term and sustainable use of the region's water resources, while making sure the unique National Heritage-listed environmental and cultural values of the Fitzroy River are protected.
- During the past 12 months, we have reduced waste through a ban on lightweight plastic bags from 1 July 2018 and prepared for the launch of a new container deposit scheme. Containers for Change, which takes effect from 2 June 2020, will encourage people to collect drink containers covered by the scheme for a 10 cent refund, reducing litter and protecting the environment.
- We dealt with some 3000 applications for water licences, provided water and environmental advice as part of the land planning process, and made good progress on preparing the next Gnangara water allocation plan.
- The introduction of fees during the year for some water licences and increases to clearing permit fees has made more resources available to the department to improve service delivery and reduce assessment and approval times.
- The department continues to deliver on commitments designed to improve the health of six south-west estuaries as part of the Regional Estuaries Initiative.
- We have also continued our successful compliance and enforcement and industry regulation programs that protect our environment and communities.

Of course, none of these and our many other achievements would be possible without the support and commitment of our staff. One of our corporate values is 'Better Together' and I am very much reminded of this as I reflect on our collective effort during the year. I would like to take the opportunity to again thank our dedicated staff across the state who work tirelessly to achieve outcomes for our water resources and environment and for the people and businesses of Western Australia who rely on them.

It is an exciting time to be working together as we continue to play a vital role in shaping the Western Australia of the future.

Mike Rowe
Director General
26 September 2019

Statement of compliance

For the year ended 30 June 2019

Hon. Dave Kelly, MLA
Minister for Water

Hon. Stephen Dawson, MLC
Minister for Environment

In accordance with section 63 of the *Financial Management Act 2006*, I hereby submit for your information and presentation to Parliament the annual report for the Department of Water and Environmental Regulation for the financial year ended 30 June 2019.

The annual report has been prepared in accordance with the provisions of the *Financial Management Act 2006*.

Mike Rowe
Director General
26 September 2019

Shortened forms

Term	Definition
AAS	Australian Accounting Standards
CALD	cultural and linguistically diverse backgrounds
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DFES	Department of Fire and Emergency Services
DMIRS	Department of Mines, Industry Regulation and Safety
DWER	Department of Water and Environmental Regulation
EPA	Environmental Protection Authority
FOGO	food organics and garden organics
FTE	full-time equivalent
MLA	Member of the Legislative Assembly
MLC	Member of the Legislative Council
NAIDOC	National Aborigines and Islanders Day Observance Committee
NEPM	National Environment Protection Measure
OSH	occupational safety and health
PFAS	per- and polyfluoroalkyl substances
WALGA	Western Australian Local Government Association
WARR	waste avoidance and resource recovery
WIR	Water Information Reporting
WSS	WestState Superannuation Scheme

Contents

The Department of Water and Environmental Regulation is responsible for ensuring the state's water resources and environment are healthy, and able to support a strong economy and thriving communities.

01 Overview

Fast facts

3952
registered customers of Water Online

5000
requests for water information via the WIR portal

1400
alleged breaches of environmental legislation

3200
reports to Pollution Watch

387
pollution and emergency incidents

2398
groundwater bores monitored

est. 7 million
plastic bags saved from littering

3765
gigalitres of water licensed for use

287
clearing permit applications approved

4001
sites classsified under the *Contaminated Sites Act 2003*

257
surface water sites monitored through telemetry

The Department of Water and Environmental Regulation is responsible for ensuring the state's water resources and environment are healthy, and able to support a strong economy and thriving communities. We administer legislation governing water and the environment, and deliver expert advice supported by science to the other regulators, government and the community.

As a state government entity, we are accountable under the *Public Sector Management Act 1994* and the *Financial Management Act 2006*. For the purposes of the Financial Management Act, the Director General is the accountable authority for the department.

Our story

The department is responsible for:

- stewardship of the state's environment and water resources on behalf of the government and the community
- regulating the state's environment and water resources
- administering licences, clearing permits and referrals of significant projects
- providing a one-stop-shop for industry and developers.

The Environmental Protection Authority (EPA), the Waste Authority of Western Australia and the Keep Australia Beautiful Council operate independently of the department. We support the EPA in conducting environmental impact assessments. We also monitor compliance with the conditions of Ministerial statements. In addition, we provide services to the Waste Authority and the Keep Australia Beautiful Council to enable them to perform their functions. For more related agencies, please see Our structure.

Our finances

In 2018–19, our department administered an operating budget of $170.5 million, capital budget of $14.5 million and managed total assets worth $510.3 million.

Our funding enables us to monitor and protect water resources throughout the state and to ensure our environment is healthy and protected.

This summary shows the key elements of our financial performance. More detailed information is provided under our key performance indicators in the Financial statements and notes.

Revenue and income

$212m

Our operating revenue and income totalled $212 million

Expenditure

$171m

Our total operating expenses were $171 million

Assets

$518m

We had total assets of $518 million

Liabilities

$35m

We had total liabilities of $35 million

► Summary of key performance indicators

For a more detailed explanation of the indicators and reasons for variances, please refer to the audited key performance indicators section of this report. Appendix B shows the relationships between our indicators, outcomes and services.

➤ Summary of key effectiveness indicators

Outcome	Key effectiveness indicator	2017–18 Actual %	2018–19 Target %	2018–19 Actual %	2018–19 Variance %	
1 Western Australia's growth and development is supported by the sustainable management of water resources for the long-term benefit of the state	Proportion of stakeholders who perceive the department to be effectively managing the state's water as a resource for sustainable, productive use	64	60	**52**	(8)	↓
	Proportion of priority growth areas that have a water supply planning strategy	75	43	**46**	3	↑
2 Emissions, discharges and clearing of native vegetation are effectively regulated to avoid unacceptable risks to public health and the environment	Percentage of regulatory compliance activities completed as planned	78	100	**98**	(2)	↓
	Percentage of potential environmental risks identified during compliance monitoring program that are rectified within two months	45	80	**40**	(40)	↓
3 Development and implementation of strategic policy and legislation that promoted sustainable environmental outcomes	Percentage of advice and recommendations that met Ministerial approval, without the need for significant modification	97	95	**92**	(3)	↓
4 Waste avoided and the recovery of materials from landfill maximised	Percentage of municipal solid waste reported as diverted from landfill through recycling compared to waste strategy target in the Perth metropolitan region	33	50	**40**	(10)	↓
	Percentage of commercial and industrial waste reported as diverted from landfill through recycling compared to the statewide waste strategy target	46	55	**45**	(10)	↓
	Percentage of construction and demolition waste reported as diverted from landfill through recycling compared to the statewide waste strategy target	77	60	**75**	15	↑
5 Quality advice to the EPA and the Minister for Environment on significant proposals and environmental issues	The EPA's satisfaction with the department's Environmental Impact Assessment (EIA) service, during the year, in line with best practice principles of EIA	97	80	**97**	17	↑
	Percentage of project-specific conditions which did not require significant change following the appeal process	94	80	**96**	16	↑
	Percentage of assessments that met agreed timelines	92	75	**93**	18	↑
	The EPA's satisfaction with the department's provision of environmental management services during the year	90	80	**93**	13	↑
6 Compliance with Ministerial Statement implementation conditions are monitored effectively	The number of Ministerial Statements audited compared to targets	100	100	**100**	0	↑

Click on any text of this table to find greater detail in Section 04.

▶ Summary of key efficiency indicators

Service			Key efficiency indicators	2017–18	2017–18			
				Actual	Target	Actual	Variance	
	Service 1	Water information and advice	Proportion of statutory referrals from decision-making authorities where advice is provided within target timeframes	95%	97%	**92%**	(5%)	↓
			Average cost per statutory referral assessment	$13 072	$11 912	**$11 442**	$470	↑
			Average cost per water measurement site managed	$8 754	$7 085	**$7 118**	$33	↓
	Service 2	Water planning, allocation and optimisation	Average cost per plan, report or guidance document to support water planning, allocation and optimisation	$417 794	$334 511	**$431 338**	$96 827	↓
			Average cost per hour of scientific support for water planning, allocation and optimisation	$196	$194	**$145**	$49	↑
	Service 3	Water regulation, licensing and industry governance	Average cost of assessing a water licence application by risk assessment category:					
			• Low risk	$1 071	$2 236	**$3 788**	$1 552	↓
			• Medium risk	$14 297	$7 604	**$5 051**	$2 553	↑
			• High risk	$28 762	$15 655	**$6 313**	$9 342	↑
			Average time taken (days) to assess a licence application by risk assessment category:					
			• Low risk	73	65	**57**	8	↑
			• Medium risk	134	75	**133**	(58)	↓
			• High risk	158	95	**213**	(118)	↓
			Average cost of compliance monitoring and enforcement action	$743	$413	**$608**	$195	↓
	Service 4	Environmental regulation	Average cost per works approval and licence application	$55 962	$68 503	**$57 821**	$10 682	↑
			Average cost per native vegetation clearing permit application	$34 405	$28 428	**$29 865**	$1 437	↓
	Service 5	Environmental policy	Average cost per hour of policy advice and recommendations	$89	$114	**$84**	$30	↑
	Service 6	Waste strategies	Cost of landfill levy compliance as a percentage of landfill levy income collected	1.3%	2.0%	**2.1%**	(0.1%)	↓
	Service 7	Environmental impact assessment services to the EPA	Cost per standardised unit of assessment output	$34 681	$31 467	**$33 082**	$1 615	↓
	Service 8	Environmental management services to the EPA	Cost per standardised unit of environmental management services output	$31 377	$39 577	**$21 049**	$18 528	↑
	Service 9	Compliance monitoring services to the Minister	Average cost per environmental audit completed	$18 069	$35 207	**$31 719**	$3 488	↑

Click on any text of this table to find greater detail in Section 04.

At a glance

Plastic bag ban
Reduced environmental impact
Behaviour change campaign
P28

Working with others
Revitalised waterways
Geographe wetlands
P36

10 cent refund
Planned container deposit scheme
Countdown to June 2020
P45

15 per cent
Reduced average annual rainfall
Managing groundwater
P46

1 million images
Protecting Aboriginal heritage
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Lake Argyle Elders
Shared cultural responsibility
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40 years in the future
Water demand projected
Model attracts worldwide interest
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Drone power
Flow data recalculated
Mt Pierre Creek
P83

New head office
Welcome to Joondalup
Prime House officially opened
P85

Tina takes the lead
Online enquiries fast-tracked
Water licensing support
P89

Our workforce

Our workforce profile provides a view of some principal characteristics of our people. We have 923 employees who cover 842.75 full-time equivalent (FTE) positions.

1%
Aboriginal Australians

13%
People from culturally and linguistically diverse backgrounds (CALD)*

2%
People with disability

*CALD – 'First language not English' or 'country of birth not Australia, USA, Canada or UK (including individual countries)'

**Permanent – SES right of return considered permanent. SES without right of return considered fixed-term

The statistics above show the number of people who self-identified as belonging to their respective diversity group in a staff survey in March 2019.

▶ Gender (%)

43% Male

57% Female

Women in senior executive service (SES)

42%

▶ Supporting workforce flexibility (%)

Working arrangements

76% Full time

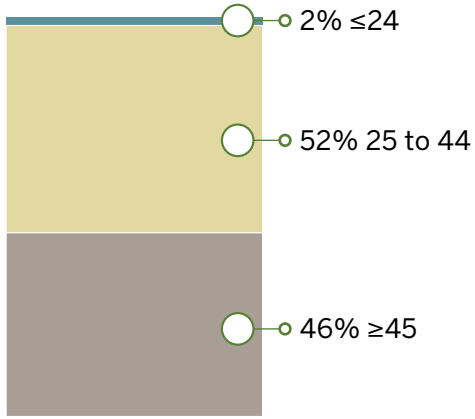
24% Part time

Employment type

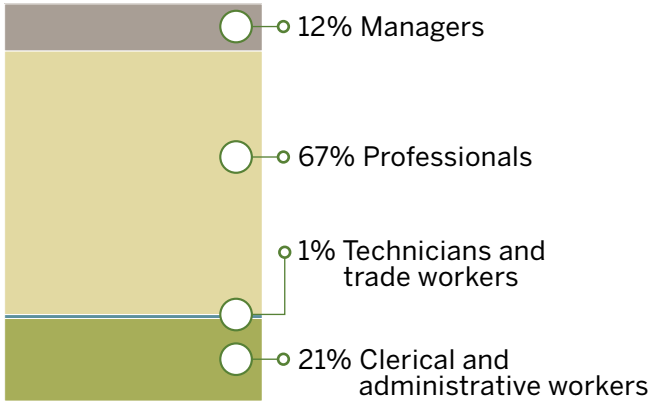
81% Permanent**

19% Fixed term

▶ Age profile



▶ Occupation category



About us

This section provides an overview of who we are, the people who lead us and how we create value.

Our Ministers, legislation and operations

► Responsible Ministers

Two Ministers have responsibility for matters relating to water and environmental regulation:

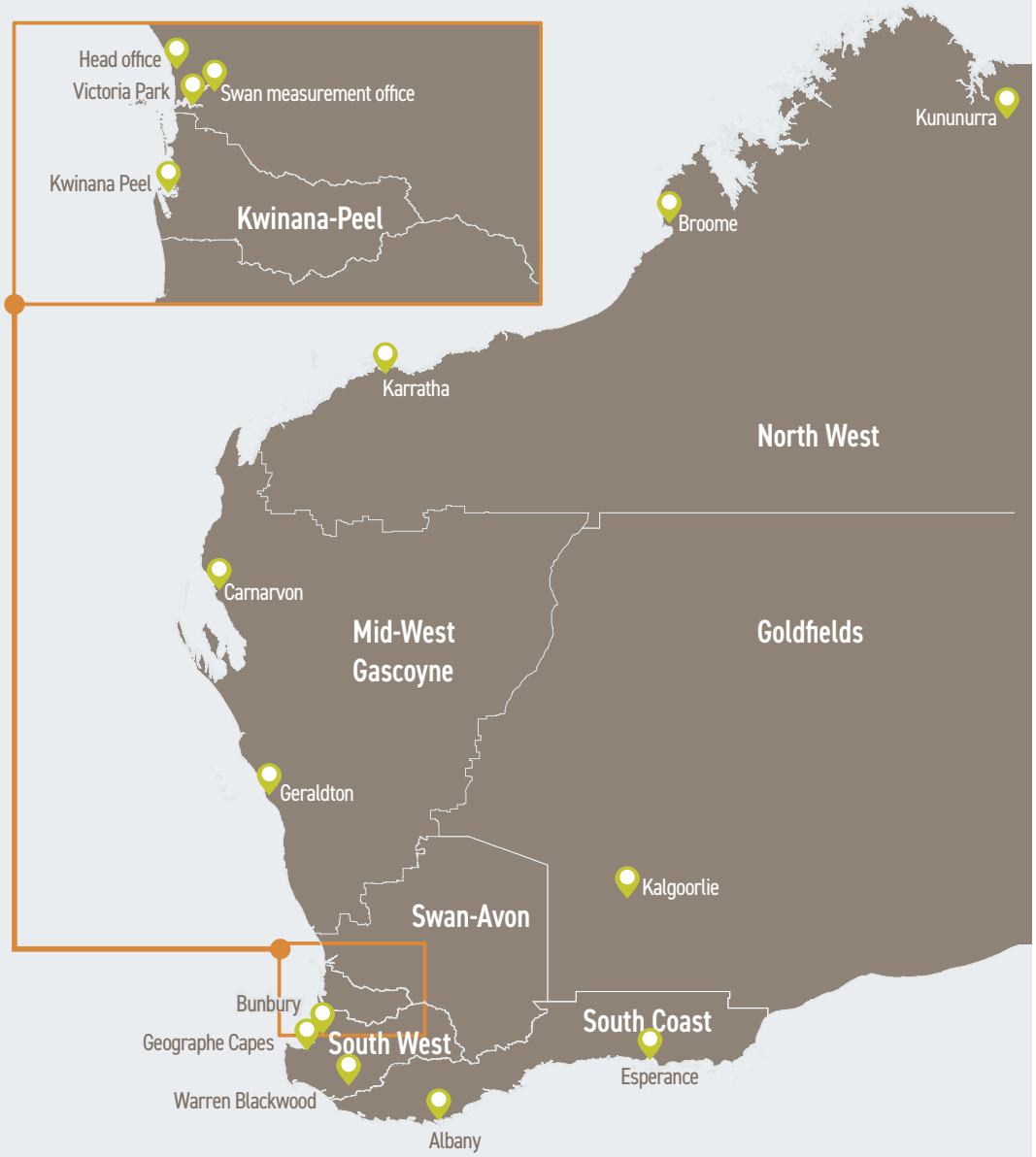
Hon. Dave Kelly BA MLA
Minister for Water; Fisheries; Forestry; Innovation and ICT; Science

Hon. Stephen Dawson MLC
Minister for Environment; Disability Services; Electoral Affairs

► Enabling legislation

The Department of Water and Environmental Regulation was established as a department on 1 July 2017 under the *Public Sector Management Act 1994*.

➤ Department of Water and Environmental Regulation regional boundaries



► Legislation administered

The main legislation administered by the Department of Water and Environmental Regulation as at 30 June 2019 includes:

- *Environmental Protection Act 1986*
- *Contaminated Sites Act 2003*
- *Waste Avoidance and Resource Recovery Act 2007*
- *Rights in Water and Irrigation Act 1914*
- *Water Service Act 2012*

For the full list of legislation that we administer, please see Appendix A.

► Extent of our operations

The department's operational areas span the state (see regional boundary map).

Whole-of-government targets

Premier Mark McGowan launched *Our Priorities: Sharing Prosperity* on 20 February 2019. It sets out 12 key performance indicators to hold the state government to account and targets important issues facing Western Australia. We will engage and work collaboratively with other departments and key stakeholders to achieve the targets and in particular the two targets most applicable to our department under 'Liveable Environment':

- use METRONET to drive sustainable urban development including a 45 per cent increase in the number of homes close to a public transport node by 2031
- create a cleaner, more sustainable environment starting with a goal that by 2030 at least 75 per cent of waste generated in Western Australia will be reused or recycled.

The full range of our goals, services and outcomes reported under the department's outcome-based management framework is provided in Section 04.

▶ What do we want to achieve?

METRONET

45%

in number of homes in the Perth and Peel region in close proximity to a public transport node by 2031.

Waste recycle

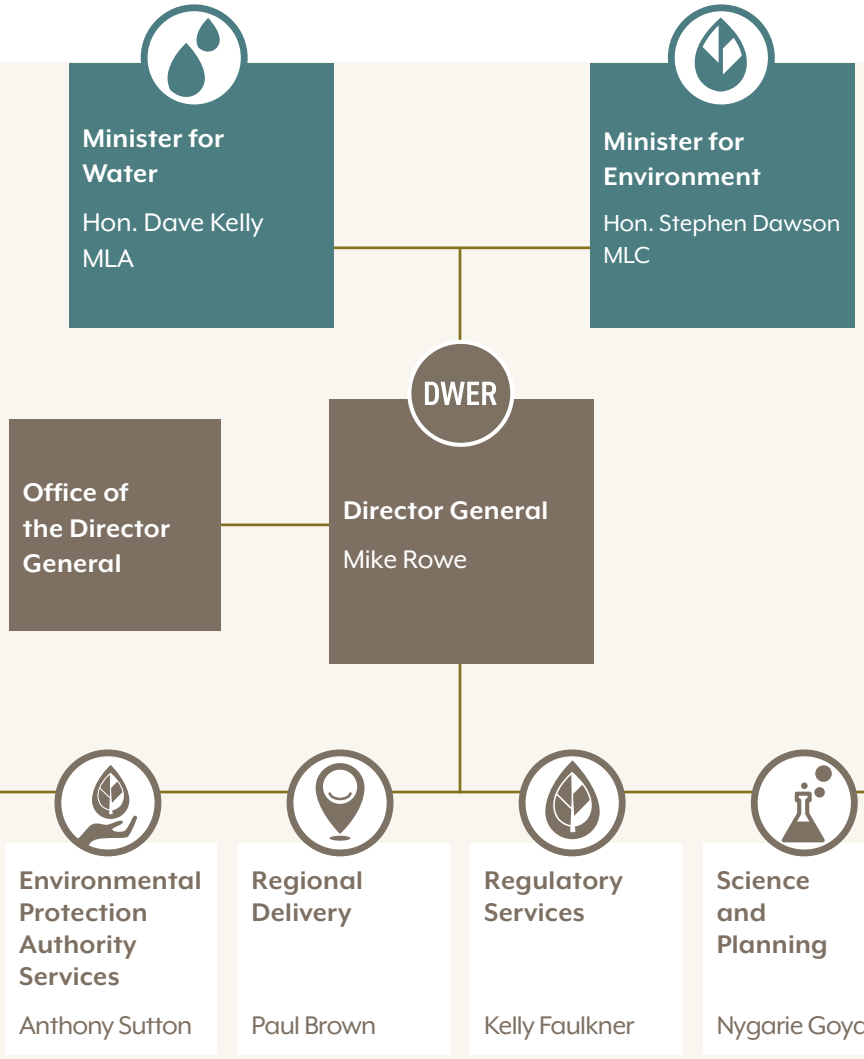
at least 75%

of waste generated in Western Australia is reused or recycled by 2030.

Our structure

The department is structured into eight directorates working together to manage and regulate the state's environment and water resources.

Our directorates support each other and work together, with the aim of achieving our goals and aligning our values. Our goals are guided by the five strategies outlined in our strategic plan.



Bodies supported by the department:

Environmental Protection Authority
Waste Authority
Cockburn Sound Management Council
Air Quality Coordinating Committee
Contaminated Sites Committee
Office of the Appeals Convenor
Keep Australia Beautiful Council WA
Warren Donnelly Water Advisory Committee
Geographe Catchment Council
Carnarvon Water Allocation Advisory Committee

Our leaders

The Corporate Executive sets the strategic direction and monitors delivery of our commitments to government and the community.

Director General

Mike Rowe

Mike Rowe is the Director General of the department, which was established on 1 July 2017. Mike was appointed to the role following three years as the Director General of the former Department of Water. Mike has worked for the Government of Western Australia in a variety of leadership, policy, advisory and delivery roles since 1993.

His experience spans a number of natural resources management portfolios such as agriculture, environment and water, as well as Aboriginal affairs and central agencies including the Department of the Premier and Cabinet. Mike is on the board of Leadership Western Australia and is Vice President of the Council of the Institute of Public Administration Australia (Western Australia). He has a Bachelor of Environmental Science and holds postgraduate qualifications in social research and program evaluation, and public sector management.

► Senior leaders

Our executive team has a wealth of experience, expertise, diverse capabilities and backgrounds, and is committed to providing Western Australians with a leading water and regulatory administration and contemporary services. Each executive director has responsibility for different aspects of the department.

Compliance and Enforcement

Stuart Cowie

Stuart leads a team of experienced staff from law enforcement, environmental science and specialist backgrounds to deliver effective compliance and enforcement services. He started his career with Western Australia Police and has worked within regulatory and emergency service public sector agencies for the past 35 years. Stuart has also chaired national and state committees on environmental reform.

► Directorate

Compliance and Enforcement administers our legislation, including monitoring, audit and compliance inspections, and investigates complaints and incidents.

Corporate Services

Geoff Gilbert

Geoff has over 35 years' experience working mainly in corporate services roles across a range of state government departments, including 15 years in senior executive service roles. In addition to leading corporate services functions, Geoff has led large whole-of-government reform programs. Geoff holds an MBA and is a graduate of the Australian Institute of Company Directors.

► Directorate

Corporate Services supports our financial, workforce, legal services, land management, and information systems to underpin our operations and key corporate systems.

Environmental Protection Authority Services

Anthony Sutton

Anthony leads the environmental impact assessment and strategy and guidance services to the EPA. His considerable experience in the Western Australian public sector and extensive knowledge of the natural environment helps ensure the EPA is provided with quality advice to enable sustainable development in the state. Anthony has held senior roles in the public service for 25 years, including as the independent Appeals Convenor for three years. He holds a Master of Science (Environmental Science) and Graduate Certificate in Business.

► Directorate

EPA Services provides support, advice and expertise to inform the EPA's assessments, strategy, planning advice and policy.

Regional Delivery

Paul Brown

Paul has been an Executive Director with the department for eight years (six of those with the former Department of Water) and is responsible for 12 regional offices and the water licensing function. Paul delivered the e-business Water Online systems for water licensing (2015–17) and is helping to build the new Environment Online one-stop-shop system for our environmental and water regulation. Paul chairs our OSH Steering Committee and is the executive lead for agriculture and horticulture industries.

► Directorate

Regional Delivery coordinates our functions delivered in the regions, including hydrography program operations, local water compliance, water licensing and planning referrals advice. It also includes the Regulatory Capability Division set up to drive the one-stop-shop for environmental and water regulation within the department.

Regulatory Services

Kelly Faulkner

Kelly has led a dedicated team responsible for our industry and native vegetation regulation functions. She has over 30 years' broad experience managing and reforming environmental regulation, particularly native vegetation. Kelly is a former Appeals Convenor, investigating appeals for the Minister for Environment. She also chairs our Equity and Diversity Panel, which strongly aligns to her values, to build an inclusive culture that champions diversity and equal opportunity in the workplace.

► Directorate

Regulatory Services administers environmental regulation functions for works approvals, licences and clearing permits. It provides ongoing environmental management of granted instruments and supports compliance and enforcement programs, native vegetation programs and regulatory reform activities.

Science and Planning

Nygarie Goyal

Nygarie leads the Science and Planning Directorate, which consists of 200 staff who deliver water information; water resource assessments; environmental noise; air quality, terrestrial and marine ecosystem advice; contaminated sites regulation; and urban water, water source protection, water supply and water allocation planning. Nygarie previously worked in the federal public service as a Principal Veterinary Officer. She is currently studying an MBA and also has postgraduate qualifications in environmental management and veterinary science.

► Directorate

Science and Planning provides evidence-based information to help stakeholders make informed judgments about issues that affect them. Our science also supports regulatory decision-making and our stewardship obligations.

Strategic Policy

Sarah McEvoy

Sarah has worked as a senior environmental manager for the state government for more than 25 years in five different agencies. She has played an integral role in managing the state's responses to climate change, waste management, environmental offsets and native vegetation management. In January 2018, the department awarded Sarah an Australia Day Achievement Medallion as part of an Australia-wide recognition of the contribution of public servants to the nation.

► Directorate

Strategic Policy leads the review and development of the state's environmental, water and waste policies, legislation and regulations. It also supports the Waste Authority, the Keep Australia Beautiful Council, Cockburn Sound Management Council, Air Quality Coordination Committee, Water Resources Reform Reference Group, Waste Reform Advisory Group and the Aboriginal Water and Environmental Advisory Group.

Strategy and Engagement

Patrick Seares

Patrick's professional focus has predominantly been building collaboration, business improvement and devising strategic approaches to natural resource management issues.

His previous roles include Director of Strategy and Guidance at the Environmental Protection Authority, CEO at the Western Australian Marine Science Institution, and several roles at the former Department of Water. He holds a Bachelor of Science from The University of Western Australia and several program management certifications.

► Directorate

Strategy and Engagement enables us to focus on long-term strategy, portfolio and stakeholder collaboration. We do this through effective partnering together with internal and external engagement and business excellence.

Our goals

We work to ensure the state's water resources and environment are healthy and able to support a strong economy and thriving communities, now and in the future by:

- supporting whole-of-government outcomes
- enabling evidence-based decisions and actions
- delivering contemporary and tailored services
- ensuring purposeful and respectful relations
- responding to emerging challenges – climate change, increasing population and urban growth.

► Vision

A healthy environment and secure water resources, valued by all, to support a liveable and prosperous Western Australia.

► Mission

To lead and excel in the sustainable management and protection of Western Australia's water and environment.

► Strategic directions

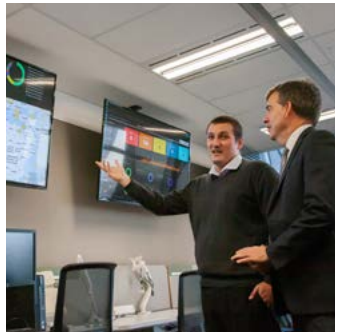
1. Share responsibility for water and the environment
2. Deliver effective legislation and policy
3. Be a responsive and credible regulator
4. Deliver trusted information, science and evidence-based advice
5. Build organisational excellence

► Values and behaviours

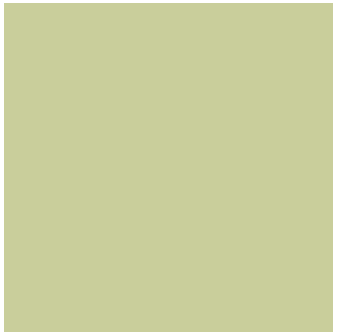
In 2018–19, we celebrated our achievements against the following values:

- We build trust
- Better together
- We care
- Open minds
- We serve to make a difference.

In their interactions with the community, other government agencies and in the workplace, our people are also guided by the Western Australian Public Sector Standards and our Code of Ethics, which require us to be honest, fair, impartial, timely, and consider all relevant information. In our relationships with others, we are required to treat people with respect, courtesy and sensitivity, and recognise their interests, rights, safety and welfare.




We build trust



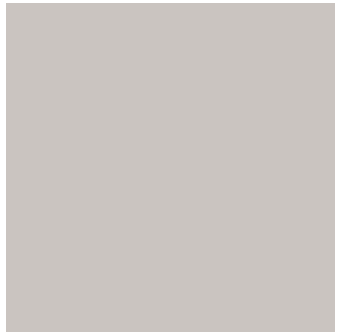

Proudly supported by


Open minds

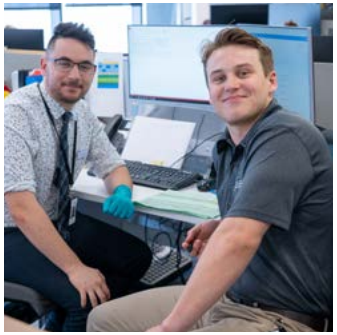

We serve to make a difference


Better together


ENVIRONMENT




We care

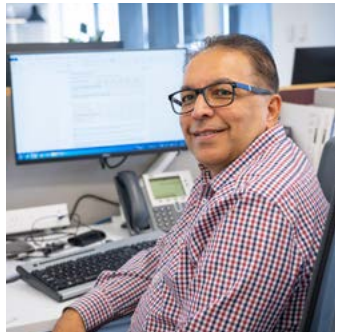


How we report this year

We discuss our performance during the year in three main sections.

Section 02	Our achievements organised under five strategies outlined in our strategic plan
Section 03	Significant issues impacting the agency
Section 04	Disclosures and legal compliance section, including how we managed our budget for the year

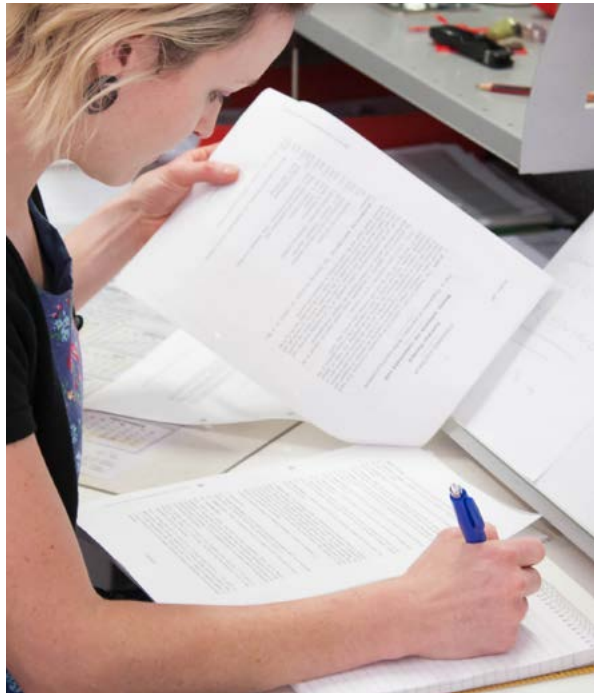
Detailed financial statements are provided in Section 04. An index to the articles in Section 02 is provided in Appendix C.



Our staff are central to our success and we will continue to create a culture of excellence and leadership, built on strong internal and external relationships. We will be inclusive and open in our interactions, influencing positive and effective change through our information, advice and programs.

02 Our operational performance

How we report on our operational performance



This section outlines our achievements and how we go about delivering our services to the community.

To do this, we follow our *Strategic plan 2018–21*, which supports our aspirations of stewardship, building on our successes and achievements over time. This includes how we are tackling waste and climate change, encouraging a more waterwise Perth, making our services more contemporary and tailored to clients, being professional and productive in supporting our people, and managing our financial affairs.

Our strategic plan is available online.

➤ Our strategies

Strategy 1	Sharing responsibility for water and the environment
Strategy 2	Delivering effective legislation and policy
Strategy 3	Being a responsive and credible regulator
Strategy 4	Delivering trusted information, science and evidence-based advice
Strategy 5	Building organisational excellence

S1

Strategy 1

Sharing responsibility for water and the environment

Water and environmental management involves weighing up competing demands from a diverse range of stakeholders for a limited water supply, while safeguarding the richness of our environment. We work with industry, the community, our regulated stakeholders, other departments and universities to achieve good outcomes. We look to make systemic changes to the way the system works to get better outcomes – whether changes to laws or policies, changing behaviour, providing advice and information, or building partnerships with others.

These matters include the government's priority issues such as METRONET, the Westport Strategy (meeting the state's future trade needs), sensible and measured approaches for a waterwise Perth, the operation of the Pilbara Environmental Offset Fund and Streamline WA.

On 6 December 2018, Premier Mark McGowan launched Streamline WA, a one-stop-shop for business, industry and the community to refer regulatory issues – making it easier for businesses to invest in Western Australia, and to diversify the economy and create more jobs. The Streamline WA Steering Committee, jointly led by our department and the Department of Mines, Industry Regulation and Safety, has identified mining environmental approvals, tourism attraction approvals and business licensing as the first three areas for reform.

Our climate

Delivering actions for a waterwise Perth remains an important government priority. We are working with other agencies and interested organisations to develop strategies that improve the liveability and resilience of Perth, including delivering changes in urban form, promoting community water literacy and adopting new thinking and approaches.

As with a 'water sensitive city', the concept of 'waterwise' moves beyond water efficiency to include smarter water use in our homes and gardens, creating liveable green and resilient communities, and developing Perth in harmony with its water resources, under leadership from government.

Examples of collaborative projects follow in this section and throughout the report, demonstrating our commitment to sharing responsibility for water and our environment across government and the community.

Climate change is significantly impacting our state. These impacts include decreasing rainfall in the south-west of the state, an increase in extreme weather events, bushfires and coastal erosion, as well as changing patterns of disease – all of which have the capacity to adversely affect primary industries, infrastructure, terrestrial and marine ecosystems, and communities.

On 5 December 2018, the Minister for Environment announced the development of a new state climate policy to draw together and build on climate-related initiatives already underway. This will include measures to enhance renewable energy, accelerate the uptake of electric vehicles and unlock the state's significant carbon sequestration potential. Our Climate Change Unit was tasked to develop and deliver the climate policy in 2020. A directors general steering group comprising key agencies influencing climate policy was established in February 2019 to oversee the policy's development.

Our Climate Change Unit has also been working on initiatives such as:

- leading the preparation of a strategy for electric vehicles
- assisting other agencies with carbon sequestration projects on pastoral lands
- providing technical and policy support to the Department of Health on the sustainable health review.

► Electric vehicles

The transition to electric vehicles is gaining momentum worldwide. During 2018–19, we continued to investigate actions to promote the uptake of electric vehicles to reduce greenhouse gas emissions and air pollution. The previous year, Western Australia joined other states and territories, local governments and an industry group that jointly committed to increase the uptake of electric vehicles and share information through a memorandum of understanding. In 2018, the Government of Western Australia set up an electric vehicles working group to lay the groundwork for

accelerated uptake of electric vehicles in our state. We support this initiative as chair of the group, which focuses on the following three work streams:

- coordinating planning and construction of infrastructure (lead agencies – Main Roads Western Australia and Western Power)
- investigating standards and financial and non-financial incentives (lead agency – Department of Transport)
- developing an action plan to increase electric vehicle uptake in fleets (lead agency – Department of Finance – State Fleet).

The purpose of the government's work is to ensure Western Australia is prepared to capture the benefits of electric vehicles.

Waste Avoidance and Resource Recovery Strategy 2030

Jump to Waste Authority site

Among the government's main strategic priorities are reducing waste generation and increasing materials recovery. On 1 July 2018, it introduced a ban on the supply of lightweight plastic bags and has committed to introducing a container deposit scheme in June 2020. We have had considerable success in planning for these initiatives at all levels. Through these initiatives, the department, together with the Waste Authority, is helping to shape and transform state and local government, industry and community behaviours around waste.

The *Waste Avoidance and Resource Recovery Act 2007* (WARR Act) sets out requirements for the Waste Authority to develop and review a waste strategy for the state. The waste strategy is a long-term strategy for continuous improvement of waste services, waste avoidance and resource recovery, and sets targets for waste reduction, resource recovery and the diversion of waste from landfill disposal.

This year we supported the Waste Authority to review Western Australia's first waste strategy, which was published in 2012. Community and stakeholder consultation was held from October 2017 to March 2018 and was followed by a second extensive consultation stage in October 2018. In addition, with the Waste Authority, we consulted other government agencies to ensure the strategy was right and the accompanying action plan would be effective.

The *Waste Avoidance and Resource Recovery Strategy 2030* aims for Western Australia to become a sustainable, low-waste, circular economy in which human health and the environment are protected from the impacts of waste.

In February 2019, Premier Mark McGowan and the Minister for Environment Stephen Dawson launched the result – Western Australia's *Waste Avoidance and Resource Recovery Strategy 2030*. The strategy aims for Western Australia to become a sustainable, low-waste, circular economy in which human health and the environment are protected from the impacts of waste. Its objectives are to avoid waste, recover more value and resources from waste, and protect the environment and human health through an effective action plan and ambitious targets.

More examples of our achievements in this area during the year include:

- worked with other jurisdictions on a new national waste policy
- amended regulations to allow use of uncontaminated fill without the requirement for a licence or triggering the waste levy
- worked with the Department of Transport and Main Roads Western Australia to encourage reuse of construction and demolition waste in road construction
- introduced the lightweight plastic bag ban from 1 July 2018
- introduced legislation to establish Western Australia's container deposit scheme from June 2020
- worked with the Department of Finance to implement the Premier's Circular for state agencies to avoid the use of unnecessary single-use plastics
- gazetted amendments to the Waste Avoidance and Resource Recovery Regulations 2008 and developed procedures to require reporting of waste and recycling data annually to DWER
- established a waste taskforce to develop advice on recycling market issues and opportunities in Western Australia, largely in response to China's import restrictions on recyclable waste.

► Waste Reform Advisory Group

In March 2019, we supported the establishment of the Waste Reform Advisory Group by the Minister for Environment. The group is chaired by the Director General and includes representatives from the Waste Authority, local government, peak industry and resource bodies, community groups, non-government organisations and material recovery operators. The group held its inaugural meeting on 9 April 2019.

The group's role is to inform the development of waste and recycling policy and legislation in Western Australia following the release of the waste strategy and the Premier's waste target as part of *Our Priorities: Sharing Prosperity*. This inclusive approach to the development of policy and legislation will support the best waste outcomes for the community, industry and the state.

Cockburn community volunteers

This year, the Cockburn community supported the department to better understand the sources and causes of dust and odour around Beeliar, Munster and Yangebup. The Community Odour and Dust Monitoring Program was one of four programs including odour patrols and two programs related to dust.

The community volunteers monitored and reported dust and odour events in the area. Information included the date, time, duration, odour intensity and frequency during the dust or odour event but also the level of annoyance the community volunteers were exposed to and the impacts on their household or health.

The 10-week program was initiated in early March and concluded on 12 May 2019 with a total of 242 odour and 105 dust reports collected and analysed. A report covering findings of the program is set to be released in late 2019.

The participation of volunteers is a great example of the value stakeholder groups can bring to managing these sorts of matters. In this case, the department gained valuable insight into the extent of odour and dust impacts in the community. This helps us decide whether to change how we regulate premises in the area.

Also important to our overall monitoring program is the establishment of a new air quality monitoring station at Mandurah. This will supplement the existing seven metropolitan sites and six regional sites. The station will include instruments to measure carbon monoxide, ozone, nitrogen dioxide and particles as well as a range of meteorological parameters.

► Dust monitoring

During the year, we also undertook dust monitoring across Beeliar and Munster using a comprehensive network of Australian standard dust monitors. LiDAR (light detecting and ranging) technology was used to visualise dust plumes as they moved. It generated images that displayed the source and pathway of dust in the region every 10 minutes over a region of about 35 square kilometres. The LiDAR ran from 21 January 2019 to 19 May 2019. Together with the output of the Australian standard monitors, a live feed of the images was made publicly available on our website.

Feature

Lightweight plastic bag ban and reducing single-use plastics

The government is pursuing a range of initiatives to reduce the environmental impact of single-use plastics. These initiatives include a ban on the supply of lightweight single-use plastic bags from 1 July 2018, the introduction of a container deposit scheme from 2 June 2020 and the Premier's instruction to government agencies to avoid buying single-use plastic items including plastic cups, straws, plates and cutlery.

It is estimated that before the plastic bag ban, Western Australians used about 670 million single-use plastic bags. Of these, about seven million were littered annually, with most of the remainder ending up in landfill. In the marine environment, plastic bags can be mistaken for food by animals and ingested, or animals can become entangled in them, restricting their movement. Plastics persist in the environment for many decades. Eventually they break up into smaller pieces and their ingestion has devastating impacts on marine wildlife and birds.

To successfully implement the ban, the government partnered with the Boomerang Alliance to help deliver specific components of the program, which provided valuable information for community and retail behaviour change campaigns. The messaging tested by the Boomerang Alliance was incorporated into our 'What's Your Bag Plan?' campaign materials that included television, radio and print media as well as web-based and social media resources.

Plastic bag ban social media resources

Hashtags: #BYOBags

Own Your Impact WA

ownyourimpactwa

National Retail Association: www.bagbanwa.com.au

Feature story:
Lightweight plastic bag ban and reducing single-use plastics

Jump to the www.

We also partnered with the National Retail Association to help retailers to understand all aspects of the ban and find suitable alternatives to meet their business and customer needs. A comprehensive engagement program was undertaken that included one-on-one visits to more than 4000 individual retailers across Western Australia, a retailer-specific website and a telephone hotline.

The work with the National Retail Association also resulted in the development of novel and engaging approaches to community and retailer engagement – including making Famous Sharron the face of the campaign. A series of short films featuring Famous Sharron and willing community members delivering messages about the bag ban were distributed via social media to coincide with the offence provisions that came into effect on 1 January 2019. During this time, other materials about the bag ban were being delivered via web-based and social media, shopping centre signage and street performance activities.

Under the Regulations, it is an offence (with fines of up to $5000) for a retailer to supply a lightweight plastic bag to their customers. Community members may also report a retailer suspected of supplying a banned bag via the National Retail Association website.

Research undertaken in 2017 shows the Western Australian community is concerned about the impacts plastics pollution is having on our environment. To build on the success of the ban, the Minister for Environment launched the *Let's not draw the short straw, reduce single-use plastics issues paper* and survey in April 2019. The aim was to gather ideas from the community and businesses on how to reduce single-use plastics and their impacts on the environment, waste facilities and human health. The results of the consultation will be available in 2019–20.

Fitzroy River catchment

The Fitzroy River and its catchment is one of Western Australia's last remaining areas that still retains its wilderness values. In March 2018, the government committed to:

- creating a national park in the upper part of the Fitzroy River catchment
- developing a management plan to ensure the health of the river and provide a basis for sustainable economic development
- no dams on the river or its tributaries.

We share responsibility for this whole-of-government management program, and will contribute by developing a water allocation plan for the Fitzroy River. This plan will put in place a regulatory framework to manage water resources, including protecting the natural and cultural values of the river. It will also establish tools to manage water use and an adaptive management framework to track and ensure social, environmental and cultural objectives are met.

In developing this plan, we have been listening to and meeting with stakeholders. These include the Martuwarra Fitzroy River Council, additional Aboriginal groups and native title holders, pastoralists and environmental groups, the Australian Government, other state departments, and research institutions.

Water allocation planning is an important tool in protecting natural systems. Through identifying ecological and cultural values, and the water regimes needed to support them, allocation can be designed to ensure these values are not affected by use of water.

Our water allocation planning is supported by many years of investment in cultural, hydrological and ecological investigations by state and federal governments, universities, research institutions and non-government organisations.

In November 2018, native title specialist Bardy McFarlane was appointed as the Fitzroy River stakeholder convenor to help guide the delivery of the government's election promises about the national park and the river. In June 2019, Mr McFarlane and government agencies held consultative forums to bring stakeholders together to share their concerns, discuss their views and balance some of their differing perspectives about protection and small-scale sustainable development of the river catchment.

Rural water planning

We understand the importance of an assured water supply to dryland parts of the state, both for agricultural purposes and to support the communities in which they are based. The key to successfully tackling the two most pressing problems in dryland areas – lack of water and poor water quality – is a coordinated approach that draws together integrated actions with clear outcomes.

We implement the Rural Water Plan, which applies to dryland areas that are defined as agricultural regions receiving less than 600 mm of annual rainfall (compared with Albany's 927 mm and Perth's 733 mm). In particular, we give priority to areas without access to reticulated (piped) water services, as these areas are the most vulnerable to serious water deficiencies.

Our aim is to develop long-term self-sufficiency and optimise the efficient use of all available non-drinking water supplies. We do this by supplying water and environmental data that supports a variety of programs, grants and rebates. We also advise farmers and pastoralists about on-farm water supplies and deliver emergency water for livestock.

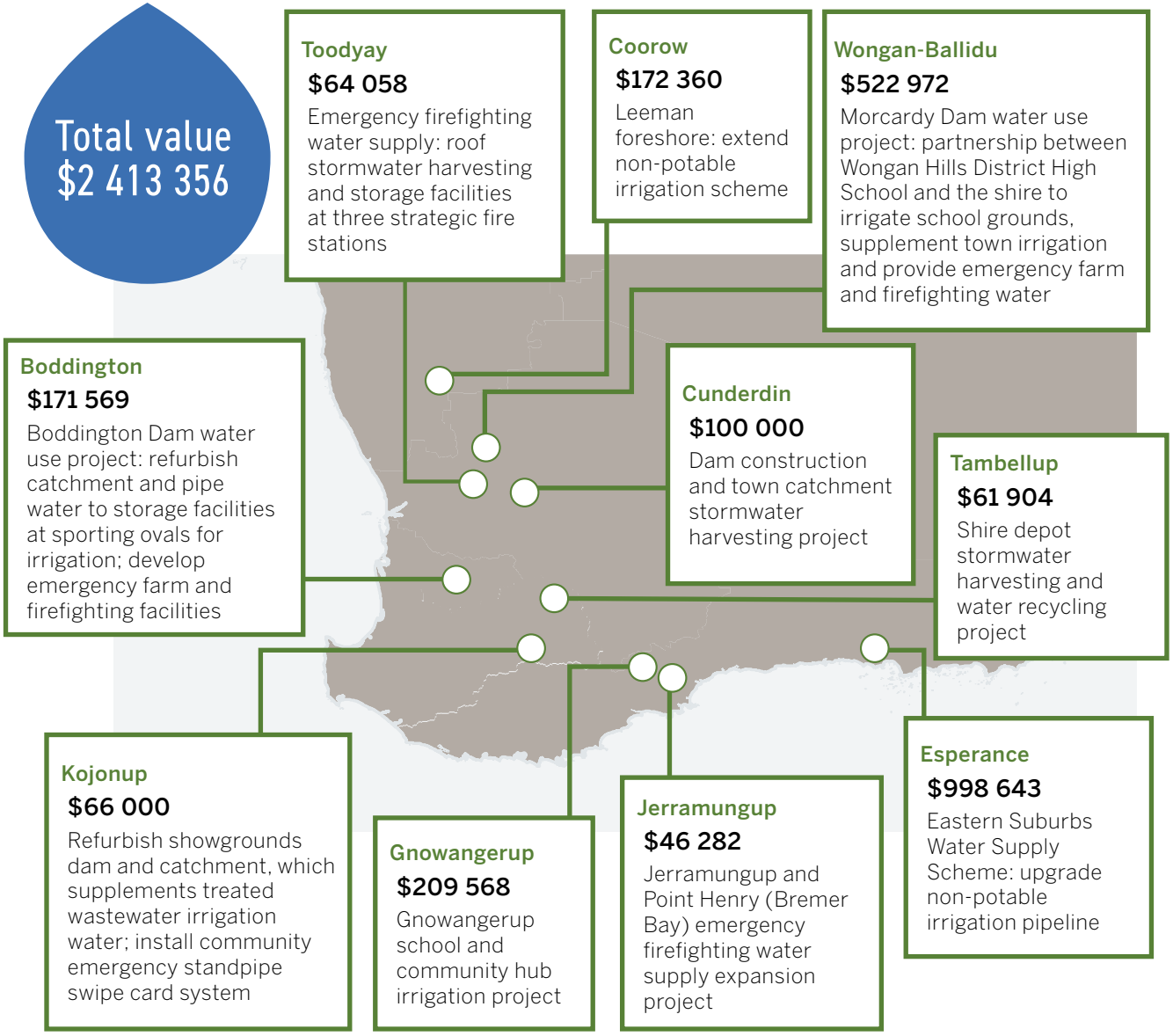
During 2018–19, the Community Water Supply Program worked on four projects to be delivered in 2019–20. These projects will benefit the community by providing strategic emergency water supplies for fighting fires and supplying non-potable water for town irrigation schemes. During the year, the following initiatives were funded:

- audits to assist farmers with their farm water planning ($92 880 to 142 applicants)
- rebates to assist farmers to implement water infrastructure identified in their farm water plans ($1.7 million to 168 applicants)
- grants to assist pastoral businesses to develop water infrastructure to support their livestock water needs ($114 137 to 13 pastoralists)
- support for local governments and communities to develop non-potable water supplies for local community benefit ($2.4 million to 10 projects – see map).

► Water deficiency declarations

Low rainfall resulted in major farm water shortages in the shires of Kent, Lake Grace, Jerramungup, Ravensthorpe and Esperance during the year. To offer support, the government

➤ Watering WA Towns completed projects, 2018–19



During the year, we have collaborated with the community in preparing for the next stage of water management planning.

approved three water deficiency declarations covering the affected areas with severe water shortages. The aim is to support animal welfare at times of very dry seasonal conditions, specifically where five or more farmers within a 20 km radius are having to cart water for livestock from an off-farm source more than 40 km away.

Three water deficiency areas were declared in 2019 – Ravensthorpe (7 May), Lake Grace (15 May) and Kent (4 June). Under the Rural Water Program, $109 917 was spent on carting water from community water supplies to these drought-affected areas.

Taking advantage of dry conditions in the south-east Wheatbelt, the Rural Water Program carried out works to desilt dams and upgrade catchments for community water supplies. These works will optimise water capture and storage from rainfall events in preparation for future dry years. Work continues in Lake Grace Shire (desilting, tank installation and catchment upgrades) and Kent Shire (catchment repair, tank installation and repair, new and upgraded pipework).

Gingin: investing in community

Groundwater resources in the Gingin area are under pressure from high levels of demand and the impacts of climate change. The Shire of Gingin's southern boundary adjoins the Perth metropolitan region, resulting in further pressure from urban expansion.

The challenge is to balance water use for the environment and agriculture – by using allocation limits, licensing rules and monitoring – to supply water security for a range of users. Our approach highlights the importance of regional and local groundwater systems not only to support agricultural and horticultural activities in the region but also groundwater-dependent environments such as Moore River and the Gingin and Lennard brooks.

During the year, we collaborated with the community to prepare for the next stage of water management planning. We participated in community forums, workshops and presentations and explained how climate change would impact aquifers, stream flows, water availability and ecosystems into the future and shared advice on adapting to a drier climate.

We have listened to feedback so we can make use of local knowledge and respond to residents' concerns. Our visits were well received with a number of people asking us to come back and help them with their future water supply challenges.

Our approach is driven by a commitment to high levels of transparency and genuine partnership. We know that providing help and education, smart support tools and the right services will encourage water users to make the needed adaptations, as well as help other stakeholders understand the water policy directions that affect their community.

Through these initiatives, we have built a close relationship with the Gingin Water Group, which is now using our science and information for additional community engagement and education. This has led to the establishment of a Water Advisory Committee under the Gingin Shire, which includes representation from our department.

This enhanced community involvement and education is a great example of the value stakeholder groups can bring to managing our water resources. By working with the Gingin Water Group, we will continue to collaborate with landholders on how they can adapt to climate change, improve their water use practices and reduce cumulative impacts on water resources.

Armadale drainage works

During the year, we worked with the City of Armadale and the Metropolitan Redevelopment Authority to develop a flood and drainage study using modelling techniques not previously used in Western Australia. This will inform changes to urban design so that new homes built to meet the needs of Armadale's expanding population are protected from flooding and inundation from the Wungong River.

The results of the study showed a large shortfall in floodplain storage in the masterplan area for the expected increase in flood height – leaving the site with the potential to impact properties within the Wungong catchment and downstream.

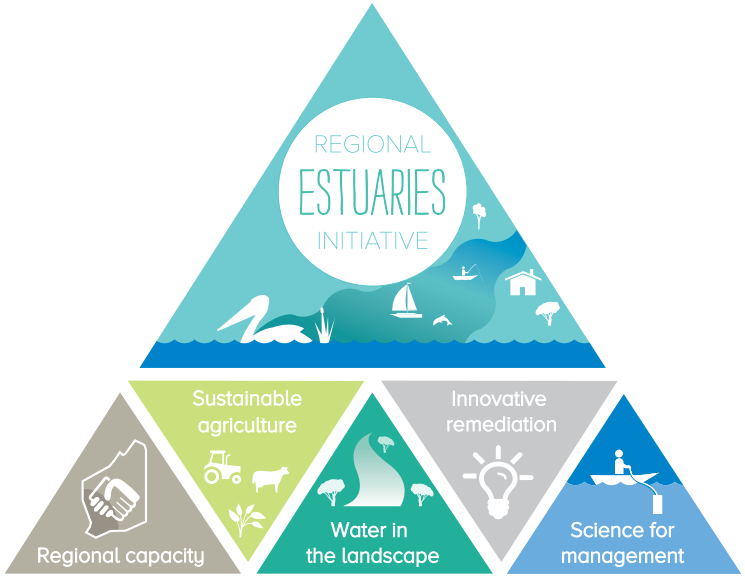
Using flood modelling tools and scenario planning, we were able to quantify the flooding and provide accurate information to land development proponents. We are confident that by using new modelling techniques and an open and collaborative approach with developers, the City of Armadale and state government agencies, we will find innovative ways to plan for large flood events in the area.

Regional estuaries

More than 80 per cent of the Western Australian population lives in and around estuaries and relies on good water quality for recreation, fishing, commercial enterprises and overall amenity value. Due to population pressures and intensive agriculture in the catchments, water quality in many estuaries has deteriorated.

We combine the scientific understanding of how nutrient losses from catchments lead to poor water quality and the practical actions needed to improve the situation by means of water quality improvement plans. For effective regional delivery, these plans rely on shared responsibility involving government agencies, local government, community, natural resource management groups and industry.

Estuaries are where rivers meet the ocean, and their health is linked to conditions of the catchment land surrounding them as well as conditions in the water itself. Our estuaries of focus in the Regional Estuaries Initiative are the Peel-Harvey estuary, Leschenault estuary, Vasse-Wonnerup estuary and Geographe Bay, Hardy Inlet, Wilson Inlet, and Oyster Harbour.



The initiative is in the third year of a four-year program, developing innovative, integrated and on-ground actions for catchment-scale outcomes. By partnering widely, we use a system-steward approach to improve water quality. Our world-class science helps direct catchment investment where it will have the biggest impact, and promotes understanding of the current health status of the estuaries.

About 200 people across all sectors are working to deliver the five strategies of the initiative across the estuaries and their catchments.

Aboriginal Water and Environmental Advisory Group

We strive to provide strong support for Aboriginal people in our community. On 27 February 2019, our new Aboriginal Water and Environmental Advisory Group met for the first time.

The group, chaired by the Director General, was briefed on the role we play in securing water supplies for the state, protecting the environment, implementing the applicable legislation and undertaking projects including the Murujuga Rock Art Strategy, container deposit scheme, water allocation planning and the department's first Reconciliation Action Plan.

The group was established to ensure Aboriginal knowledge, values and needs are appropriately addressed in policies, planning, legislation, regulation and management that relate to the state's water and the environment. This collaboration will ensure that Aboriginal social, cultural and economic needs remain central to the department's decisions on water and environmental management.

Other shared activities

Significant projects during 2018–19 have included supporting water matters for the government's METRONET projects, driving engagement to support the development of the Fitzroy and Derby water allocation plans, supporting the development of the lithium and nickel battery industry and managing the Port Hedland dust issue. In addition, water quality improvement plans were completed for the Vasse-Wonnerup wetlands, Toby Inlet and the Lower Vasse River. These plans were developed with our project partners, the City of Busselton and the Department of Biodiversity, Conservation and Attractions, and will form the basis of future management of Geographe waterways, continuing our work in at-risk estuaries.

About 200 people across all sectors are working to deliver the five strategies of the initiative across the estuaries and their catchments.


Our approach is driven by a commitment to high levels of transparency and genuine partnership

Feature

Revitalising Geographe Waterways

The Revitalising Geographe Waterways program is a successful example of stewardship. During the year, we worked closely with partners and the local community to increase community input and knowledge, and worked with farmers to improve dairy effluent management, manage fertiliser run-off, protect waterways and improve water quality in the catchment.

This collaborative approach has accelerated water quality improvements in the Geographe catchment and restored community confidence in the government's management of the waterways.

The award-winning waterways program monitors the Vasse-Wonnerup wetlands and priority waterways to identify key ecosystem features and threats. This helps us target our actions and resources to protect and improve waterway health and water quality. The $15 million program was recognised in October 2018 with a state Australian Water Association Award for program innovation.

The wetlands regularly support peak numbers of 25 000–35 000 waterbirds in most years and provide the most significant regular breeding habitat for black swans in the state.

In April 2019, the government announced the program would be extended for a fifth year to ensure water quality improvements and nutrient reductions in the Geographe catchment could continue under the oversight of the Interagency Vasse Taskforce, chaired by Dr Sally Talbot MLC. More than 20 organisations, including government agencies, universities, and catchment and industry groups have been involved with the delivery of the program, ensuring whole-of-community commitment to tackling the challenges and complexity of water quality in the catchment.

Feature story: Revitalising Geographe Waterways

Jump to the www.

We are making it easier for stakeholders to understand the waterways and improve their decision-making through:

- hydrological models developed for specific waterways, including Toby Inlet and Vasse Estuary, resulting in improved water quality and waterway health
- a major ecological study on the Vasse-Wonnerup wetlands, greatly increasing our understanding of this important link between water quality and the ecology of the Ramsar-listed wetlands
- river health assessments, highlighting the importance of protecting waterways for their ecological and social benefits.

These findings have been shared with project partners and the local community at science updates that continue to be well received and attended.

On-ground works in the catchment have continued strengthening partnerships with farmers and industry groups.

- Modelling predicts that improved fertiliser management in this catchment since 2015 has resulted in a reduction of nearly 2000 kg per year of phosphorous entering the Vasse-Wonnerup wetlands and Geographe Bay.
- Over 70 farmers have been involved in the program since 2016 contributing to improved farming practices (fencing, revegetation, soil testing, and better management of fertiliser and dairy effluent).
- Over 40 km of fencing and 20 hectares of revegetation (tuarts, peppermint, rushes and sedges) have been completed over the past three years, protecting and improving riparian vegetation and reducing nutrient run-off from agricultural land.
- More than 300 community members attended gardening workshops to learn how to create beautiful gardens while protecting the waterways.

Our partnership with the urban community through the GeoCatch Bay OK project has also been strengthened through a major project with the City of Busselton and the Water Corporation to upgrade the Vasse diversion drain and install rain gardens in priority sites.

S2

Strategy 2

Delivering effective legislation and policy

This section focuses on how we ensure environment and water legislation, policies, procedures and guidelines that we administer on behalf of the government are effectively carried out.

Waste not, want not

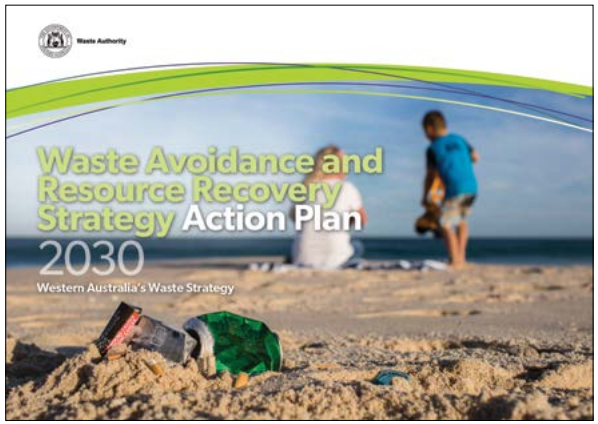
The Waste Authority's *Waste Avoidance and Resource Recovery Strategy 2030* envisages that the state will become a sustainable, low-waste, circular economy in which human health and the environment are protected from the impacts of waste. To achieve this, much of the waste we generate must be valued as a resource that can be reused or recycled for the benefit of the economy and the environment.

Materials that could be recovered are being sent to landfill, stockpiled indefinitely or disposed of illegally. Where they do not create a risk to human health or the environment, such materials can be re-evaluated as fit-for-purpose products.

In June 2019, we released an issues paper, *Waste not, want not: valuing waste as a resource*, for a 12-week comment period. This paper seeks comments on the legislative approach for a waste-derived materials framework that will work best for Western Australian conditions. Current legislation does not include a framework for these materials, creating uncertainty for industry about which materials will cease to trigger licensing and waste levy requirements.

Together with the Waste Authority, we are working with Main Roads Western Australia to increase the use of recycled construction and demolition products (crushed concrete) in major civil construction projects throughout the state. The Kwinana Freeway Northbound Widening Project from Russell Road to Roe Highway was the pilot project, using about 25 000 tonnes of recycled product.

During the year, we continued to work with stakeholders, including the Waste Reform Advisory Group, on the legislative framework for the regulation and management of Western Australia's waste, which consists of the Environmental Protection Act, WARR Act, *Waste Avoidance and Resource Recovery Levy Act 2007* (WARR Levy Act) and their regulations.



► If it didn't grow, it's not FOGO

FOGO (food organics and garden organics) is food and garden waste (such as kitchen scraps, lawn clippings, small branches and garden debris) which is placed in the new lime green-lidded bins and used to create high-quality compost. The three-bin FOGO system allows households to more easily separate items that can be composted and recovered as a resource, for example, quality compost. The other two bins have yellow or red lids.

The yellow-lidded bins are for items that can be recycled (such as aluminium, plastic, paper, cardboard, newspaper and glass which are separated and sorted before being turned into new products). The red-lidded bins are for waste that cannot be composted or recycled.

The state government has committed over $10.5 million in funding through the Better Bins program to encourage local governments to implement better kerbside collection systems.

One of the headline strategies in the *Waste Avoidance and Resource Recovery Strategy 2030* is the government's commitment to a consistent three-bin kerbside collection system, which includes separation of FOGO, to be provided by all local governments in the Perth and Peel regions by 2025.
A three-bin service that includes FOGO can achieve recovery rates of around 65 per cent, or higher if residual waste undergoes further treatment for recovery.

High performing FOGO services can make the single biggest contribution to achieving the waste strategy material recovery targets for municipal solid waste.

This year, we supported the Waste Authority to develop a revised Better Bins FOGO program and business case through a consultation process with local governments.

Three workshops were held with the cities of Stirling and Melville and the Western Australian Local Government Association, and eight written submissions were received. The business case for a revised Better Bins program informed the Waste Authority's 2019–20 draft business plan.

During 2017 and 2018, the City of Melville also conducted a three-bin FOGO trial across 7000 households within the suburbs of Bicton, Brentwood, Bull Creek, Mount Pleasant and Willagee. The trial, which achieved a recovery rate of 66.5 per cent and indicated likely lower waste management costs for the city over time, was watched closely by other local governments. Subsequently, the City of Melville, the City of Fremantle and the Town of East Fremantle all committed to implementing the three-bin kerbside collection system in 2019.

In May 2019, the Waste Authority released a position statement confirming the authority's support for FOGO collection systems provided by local governments to households.

► Hazardous waste in the household

The Household Hazardous Waste program funds local governments and regional councils to help collect, store, recover and dispose of households' hazardous waste. The program is managed by the Western Australian Local Government Association and administered by the Waste Authority on behalf of the government.

Our homes can contain dozens of flammable, toxic, explosive or corrosive products. If not disposed of correctly, these products (collectively called household hazardous waste) can pose a threat to public health, safety or the environment.

Since 2008, thousands of tonnes of materials have been collected from 13 permanent facilities (eight metropolitan, five non-metropolitan) and through temporary collection events.

In 2018–19, more than 518 tonnes of materials including acids, batteries, flammable liquids, paint and cleaning products were collected for safe recovery or disposal.

Household Hazardous Waste program in 2018–19

518+ tonnes

collected for safe recovery or disposal

► Waste Wise Schools expansion

The Waste Wise Schools program targets schools in Western Australia with educational strategies for avoiding waste, recovering waste as a resource, and reducing waste to landfill while developing positive environmental values in students and the whole school community. These schools model responsible environmental behaviours through hands-on learning experiences that are linked to the Australian Curriculum. This year, the highlights included the following:

- 310 schools were accredited, including 37 newly accredited schools.
- Grants were provided to 84 accredited schools for projects such as paper and plastics recycling systems; composting and worm farming; Waste Wise vegetable gardens; and reuse collection infrastructure. A total of $228 967 was awarded during the financial year.
- 15 professional development workshops were delivered, while educational waste audits and student activities were undertaken at 52 schools.

- Funds were provided to support waste management activities in schools in the Kimberley and to deliver waste education workshops at early years learning services.
- Waste management curriculum material continued to be developed and provided to schools, to support teachers in the delivery of waste wise education to Western Australian students.

► Controlled waste

Our regulations aim to minimise the risk to the public and the environment of inappropriate or illegal transport and disposal of controlled waste.

Under the Regulations, carriers, drivers and vehicles involved in transporting controlled waste need to be licensed. Carriers and drivers record the movements of these vehicles using an online tracking system as well as a paper-based system for small business operators.

Controlled waste is defined under the Environmental Protection (Controlled Waste) Regulations 2004. It includes substances like sewage, heavy metals, acids, arsenic, asbestos, clinical waste, organic compounds, tyres, food processing and grease trap wastes, and waste pharmaceuticals and medicines.

During 2018–19, a total of 642 new licences and 1491 renewals were processed by the Controlled Waste Branch, with 89 836 controlled waste forms received. This equates to about 225 000 vehicle movements that were tracked by the controlled waste tracking system.

► MyCouncil website expanded to include waste data

During 2018–19, we partnered with the Department of Local Government, Sport and Cultural Industries to include local government waste and recycling data in the upgraded MyCouncil website.

The MyCouncil website is a government initiative to improve local government accountability and performance by providing clear, transparent data. This approach is based on the belief that by making a problem transparent, we have created the conditions for solving it.

Controlled waste licences processed in 2018–19

642
New licences

1491
Renewals

Published data includes disaggregated quantities of waste collected, disposed of to landfill and recovered by each local government from kerbside and vergeside services and will be updated annually. The data is collected from the annual Local Government Waste and Recycling Census, which we carry out on behalf of the Waste Authority.

With the publication of data on MyCouncil, one of the many actions identified in the Waste Avoidance and Resource Recovery Strategy 2030 action plan was completed.

Updating the *Environmental Protection Act 1986*

► Waste levy

The WARR Levy Regulations set out methods for calculating amounts of waste (tonnes and cubic metres) disposed of to landfill. Some of the current methods are inherently imprecise.

One of the key levers to reduce waste generation and promote recovery is the waste levy. The levy places a cost on disposal of waste to landfill, making recycling more attractive.

In May 2019, we released a discussion paper proposing reforms to improve the accuracy and consistency of waste measurement, ensure a level playing field for landfill premises and enhance the effectiveness of the waste levy regime. As weighbridges are generally acknowledged to be a more accurate method of waste measurement, the paper proposed amendments to introduce the requirement for liable landfill premises to use weighbridges.

Feedback from this discussion paper will inform the development of amendments to the WARR Levy Regulations.

Other amendments made to the WARR Regulations, which came into effect on 1 July 2019, require recordkeeping and reporting of waste and recycling data by local governments, waste recyclers and some large regional landfill premises. These amendments will provide data to help us develop policy and programs which promote recycling and reduce waste to landfill.

The government intends to update Western Australia's primary environmental legislation to ensure it meets future challenges and continues to meet the expectations of industry and the community in protecting public health and our environment while promoting sustainable development.

It is timely to update this legislation since the last major amendments to the *Environmental Protection Act 1986* occurred in 2003. This will include reflecting modern technology and promoting transparency and accountability. For example, amendments proposed for the Act will allow us to support meetings of the Environmental Protection Authority by teleconferencing, use satellite imagery for prosecution of clearing offences and allow digital recordings of investigative interviews.

Guidance

In addition, new streamlined approval processes and reduced duplication will facilitate sustainable development and provide industry and the community with greater certainty. One specific area we will be looking to improve will be the implementation of bilateral agreements between the state and federal governments under the *Environment Protection and Biodiversity Conservation Act 1999*, thereby reducing duplication of state and federal assessment and approval processes.

The department plans to release a draft Bill and discussion paper for consultation later in 2019 before bringing a Bill to Parliament.

The amendments will complement priority reforms initiated by the government to create a one-stop-shop for water and environmental regulation in Western Australia and the Streamline WA initiative aimed at delivering better regulation.

Delivering effective legislation and policy also means being proactive in working with industry and other stakeholders to prevent problems before they occur. During the year, we have continued our program of issuing practical guidelines. These guidelines and procedures enable stakeholders to position themselves within approaches that we describe as low risk. During the year, we:

- Progressed development of environmental guidelines on odour, air, noise and dust emissions.
- Published nine industry-specific guidelines that provide information on how we administer licensing of those industries. These publications have been welcomed by industry because they provide better information on how to correctly comply with licensing requirements.
- Continued to develop guidance material for industry stakeholders and internal staff to guide decision-making processes.
- Finalised the *Guideline: Odour emissions*, to ensure we receive adequate data when assessing odour impact.
- Relaunched the *Guideline: Industry regulation guide* to licensing, which outlines our licensing framework for applicants proposing to construct or undertake activities under Part V, Division 3 of the Environmental Protection Act.
- Continued to standardise procedures for licensing and works approvals under Part V Division 3 of the Act, native vegetation clearing permits under Part V Division 2 of the Act, and water licensing under the *Rights in Water and Irrigation Act 1914*, bringing consistency across the four regulatory areas.

Publication of the above procedures and guidance will provide clarity to applicants on our requirements and provide visibility on how we harmonise our processes across regulatory delivery.

During the year we also provided support to the EPA on guidance and procedures under Part IV of the Act. This included development of a technical report on the issues affecting Carnaby's cockatoo in the Perth and Peel region, and updated spatial data and maps in the *Pilbara coastal waters quality consultation outcomes*.

Feature

Container deposit scheme

Jump to the www.

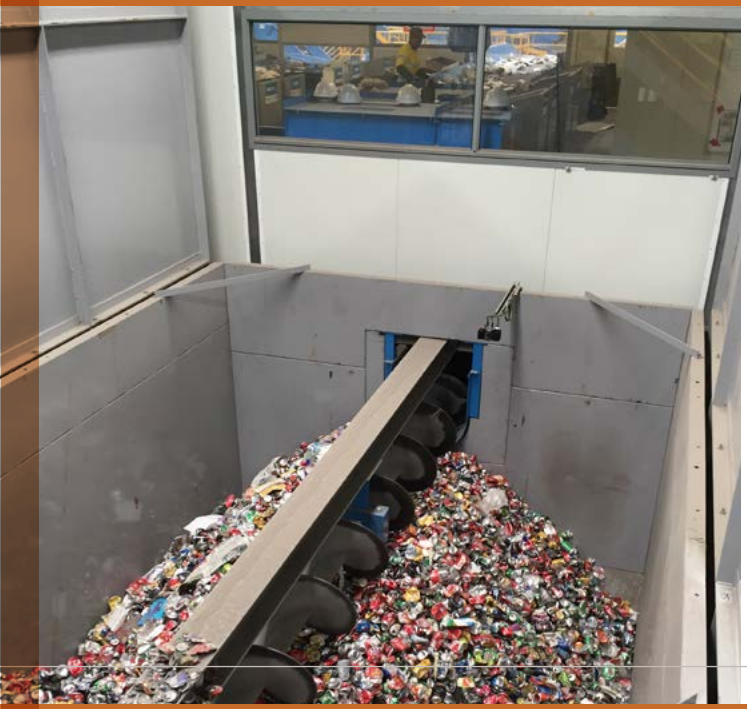
From 2 June 2020, the container deposit scheme, called Containers for Change, will allow consumers to take eligible empty drink containers to refund points to obtain a 10 cent refund. Drink containers account for 44 per cent of litter by volume in Western Australia and this initiative will reduce litter, increase recycling and provide opportunities for social enterprise participation.

Modelling shows that over 20 years the scheme will recycle an additional 6.6 billion containers, of which 5.9 billion containers would have been landfilled and 706 million containers would have been littered. It will also create around 500 new jobs and provide significant opportunities for social enterprises and community groups to generate additional revenue, while complementing existing recycling efforts.

Substantial progress was made during the year on preparations for the scheme, with the department consulting with the community and other jurisdictions to help design the scheme. An advisory group of experts from across Australia also meets on a monthly basis to assist. This advisory group is supported by three technical working groups that provide guidance on operational considerations as the scheme develops.

Legislation to establish the scheme was passed in March and the first regulations were made on 18 April 2019. The regulations deal with matters such as the appointment process, performance targets, reporting and the civil penalty regime. Further regulations are being prepared. Minimum network standards have been set to ensure that refund points are easy to access for 98 per cent of the population.

On 14 May 2019, the Minister for Environment announced the selection of a coordinator for the container deposit scheme – a not-for-profit company named WA Return Recycle Renew Ltd. This company will be responsible for running the scheme and ensuring it meets all objectives set by the government.



Managing groundwater

We take seriously the evidence of climate change and its effects on groundwater resources. As a result of climate change, since 1975 the south-west of Western Australia has experienced a 15 per cent decline in average annual rainfall. This has reduced recharge to groundwater aquifers from Geraldton to Esperance.

Across much of the south-west corner of the state, groundwater is an important part of the water supply mix and is used for town drinking water supplies, to irrigate public open space and for irrigated horticulture. Perth's groundwater resources provide more than 40 per cent of scheme supplies to households and businesses, almost all of the water supply used for parks, sports grounds and agriculture, and one in four domestic gardens. Groundwater also plays an important role in our natural environment by supporting wetlands, lakes and deep-rooted vegetation.

Managing groundwater sustainably to provide for our current needs and for future generations means making sure the amount of groundwater pumped from aquifers stays in balance with the amount of recharge to groundwater aquifers from rainfall. The amount of groundwater available for use in each location is identified through the department's water allocation plans. To get this right, water allocation planning involves considerable science, including future climate projections.

Water allocation planning responds to climate change by using the projected climate trend to identify water availability over the 10-year life of the plans. Because rainfall in the south-west is decreasing, in many cases this means that no more groundwater can be made available for use. Water users respond to climate change by using the water that is available more effectively including through improving irrigation technology, better design of green space, reducing leaks and wastage, and through water trading. Looking ahead, in some locations we will need to begin to reduce groundwater use as rainfall decreases. By planning future water allocation we will be able to provide certainty about any changes needed, allow plenty of time to adjust and keep the changes small.

In the next few years we aim to complete or progress groundwater allocation plans for Cockburn, Gnangara, Gingin, Myalup, Perth South and Jandakot, Serpentine and Albany.

By planning future water allocation we will be able to provide certainty about any changes needed, allow plenty of time to adjust and keep the changes small.

Water policies

State planning policies provide the highest level of land planning policy control and guidance and are the basis for coordinating and promoting the state's land use planning, transport planning and sustainable land development. They guide all public authorities and local governments.

To achieve good water outcomes in the land planning system, we provided considerable input into the Department of Planning, Heritage and Lands' review of state planning policies and specifically State Planning Policy 2.9 *Water resources*. Our input ensures that water resource management and information are considered early in statewide decisions on land planning and development.

In May 2019, we published a two-year extension to the exemption for local government drainage service providers. Local governments are currently exempted from licensing under the *Water Services Act 2012* for their drainage management activities.

We worked closely with the Water Corporation, Busselton Water and Aqwest to prepare for the publication of regulated fees and charges for 2019–20 for the three water corporations, which were published in the *Government gazette* in June 2019.

We are also developing and updating a wide range of water policies to support water allocation and licensing decisions across the department.

S3

Strategy 3

Being a responsive and credible regulator

This section focuses on our streamlined approach to regulatory assessments and advice. Much of our effort as an agency is directed at delivering our regulatory functions under the 22 Acts, 38 Regulations and 150-plus pieces of subsidiary legislation we administer.

Part of being a responsive and credible regulator is ensuring we are delivering on the reason we were established as a department, which is to be a one-stop-shop for environmental and water regulation. Our objective is to provide the most efficient and effective approvals mechanisms that we can to ensure the environment, including water resources, is managed and protected from contamination and other threats.

Balancing environmental values and growth

We strive to ensure there is a balance between protecting environmental values while still enabling responsible socioeconomic growth. Under Part V of the Environmental Protection Act, we regulate activities of industrial premises and the clearing of native vegetation.

► Industry regulation

Works approvals and licences place regulatory controls on the construction and operation of industrial premises to ensure there are no unacceptable impacts from emissions and discharges to public health or the environment.

In 2018-19, our industry regulation division received 191 works approval and licence applications, and 151 were determined, with the average time for determining applications being 79 days, compared with 72 days the previous year when the department received 170 applications. As of 30 June 2019, we administered 1042 licences and 271 works approvals across the state.

► Improving delivery

In 2018–19, we continued to develop our internal processes to improve the way we make decisions as well as carrying out projects to improve the timeliness and delivery of our services. The focus has been on improving the delivery of works approvals and licences and streamlining the Part V approvals process for industry, delivering practical and effective reform.

Although we have not been able to meet our target timeframes for the year (48 per cent instead of 80 per cent of applications being determined within 60 business days), steps have been taken to improve our timelines. Through an increase in fees on 1 June 2019, an extra 22 staff were allocated to the department to increase our capacity to process applications. Other initiatives include:

- Addressing the backlog of works approval and licence applications in the resources sector. Of 100 applications identified as backlog in January 2019, over two-thirds have been completed with the remainder under assessment and expected to be resolved in the near future.
- Investing in new systems including the Environment Online platform.
- Improving the transition process from works approval to licensing using our new *Guideline: Industry regulation guide to licensing*. This has helped industry move more quickly from construction to commissioning and operation of their premises.
- Consolidating licences for premises with multiple amendment notices. This ensures clarity of licence conditions for licence holders and other stakeholders.

With more staff, better systems, clear guidance documents and training, we are working towards improving the delivery of decisions and instruments, which also reduces the regulatory burden on industry. Continual improvements to the approvals process ensure that public health and the environment are protected from activities taking place at prescribed premises. These are industrial premises with potential to cause emissions and discharges to air, land or water that trigger regulation under the Environmental Protection Act.

Works approval and licences processed in 2018–19

1042
Licences

271
Approvals

Environmental impact assessment

We support the Environmental Protection Authority (EPA) in conducting environmental impact assessments and developing guidance and procedures to protect the environment.

Increased diversity and complexity of both developmental proposals and planning schemes requiring formal assessment continued this year.

► Development proposals

During 2018–19, we worked on 43 development proposals that were referred to the EPA for environmental impact assessment. The EPA determined that 20 referred proposals required formal assessments. Almost one-third (30 per cent) of these proposals related to the Burrup Peninsula or Dampier Archipelago. Our concern in these matters is to protect culturally significant rock art in the area from damage due to industrial air pollution. A further seven proposals did not require assessment, but specific advice was provided to proponents, helping companies get things right.

► Planning schemes and scheme amendments

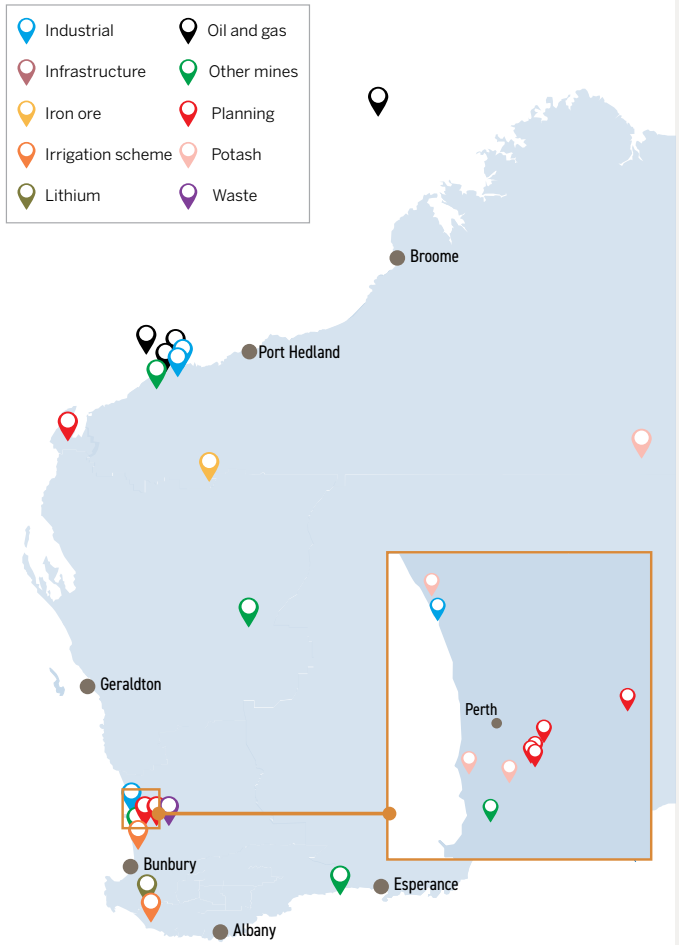
During 2018–19, we dealt with 161 planning schemes and amendments to schemes that were referred to the EPA for environmental impact assessment. Due to planning reforms introduced in 2014–15, the number of these referrals has continued to decline. The new 'deemed' scheme provisions have meant local planning schemes require fewer amendments, and reduced planning activity across the state.

While 2018–19 saw a significant reduction in planning schemes and scheme amendments referred to the EPA compared with previous years, a high number of schemes (six) were determined to be assessed as 'environmental review'. These included proposals to rezone land on the Swan coastal plain, land with black cockatoo habitat and land uses that conflicted with residential land uses. The EPA also determined that one proposed amendment was incapable of being made environmentally acceptable based on the significance of the proposed clearing and likely fragmentation of remnant native vegetation. The amendment would have threatened black cockatoo habitat (roosts and breeding sites), banksia woodlands and the ecological community.

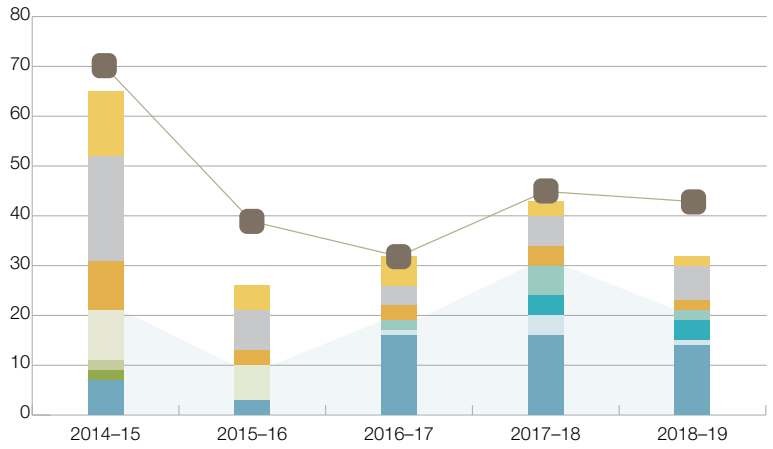
► Formal assessment

Increased diversity and complexity of both developmental proposals and planning schemes requiring formal assessment continued this year. These included METRONET projects, oil and gas developments and infrastructure on the Burrup Peninsula, lithium, iron ore mines, irrigation schemes and potash.

The map shows the location of proposals and schemes where a formal level of assessment was set during 2018–19.



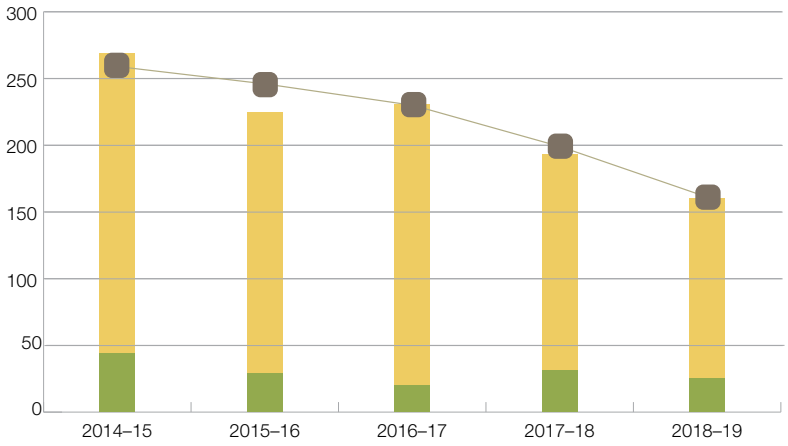
Total development proposals referred and decision



*Includes the environmental review – public review level of assessment
**Level of assessment is no longer used

- Total received
- Not assessed
  - No advice given
  - Public advice given
  - Managed under Part V
- Assessed
  - Assessment on proponent information category A** (API A)
  - Assessment on proponent information category B** (API B)
  - Derived proposal
  - Referral information – no public review
  - Referral information – with public review
  - Environmental review – no public review
  - Public environmental review*

Total schemes and scheme amendments referred and not assessed decision



- Total received
- Not assessed
  - Advice given
  - No advice given

► Completed assessments

During 2018–19, we provided support to the EPA to complete 24 assessment reports, including the formal assessment of 15 mining, industrial and infrastructure proposals. This included the first METRONET project (Yanchep Rail Extension: Part 1 – Butler to Eglinton), the first potash project in the state (Beyondie Sulphate of Potash Project), an expansion to the Greenbushes Lithium Mine to supply the high global demand for lithium that was reported in the 2017–18 annual report and several iron ore mines.

➤ Assessments completed

Type of assessment	2015–16	2016–17	2017–18	2018–19
Formal assessments				
Public environmental review	6	11	5	10
Environmental review (no public review)	-	-	-	2
Assessment on referral information (with public review)	-	-	1	1
Assessment on referral information (no public review)	-	1	5	2
Strategic proposal	-	-	1	-
Assessment on proponent information (Category A)*	6	5	-	-
Changes to conditions				
s.46 changes to conditions	6	14	7	9
Total	18	31	19	**24**

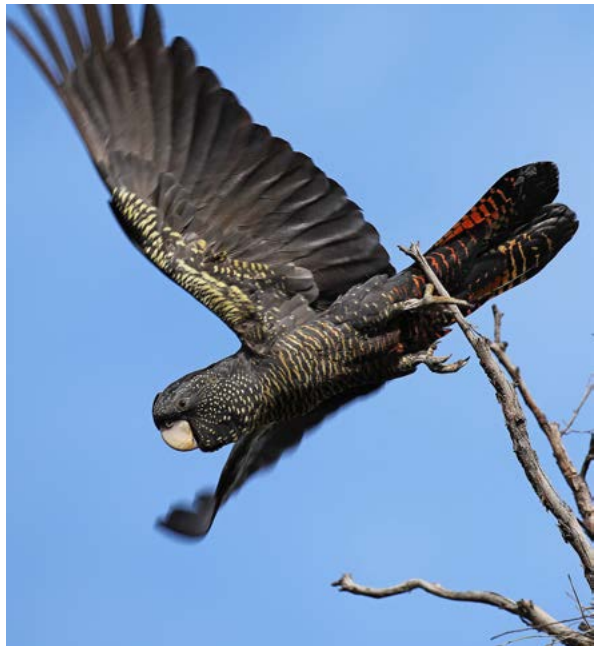
*Level of assessment is no longer used.

EPA guidelines and procedures framework review

We continued to implement recommendations from the review of the EPA's guidelines and procedures framework, reported in last year's annual report. The review has ensured a clear and contemporary guidelines and procedures framework for the EPA. Our support for environmental protection continues as an active body of work. Some examples include:

- Regular consultation with the EPA's Stakeholder Reference Group, which ensures the direct contribution of key external stakeholders and peak industry bodies who provide input to the EPA on its guidelines, processes and performance. The group met four times during the year.
- Continued opportunities for the public to participate in the environmental impact assessment process. These include seven-day public comment periods on referrals received and public review periods for environmental review documents. The public is encouraged to participate in consultation by offering advice, identifying omitted relevant data or information, providing local knowledge and proposing alternatives.

Contaminated sites



- Progress in capturing and consolidating environmental data contained in biodiversity survey reports on our Index of Biodiversity Surveys for Assessments (IBSA).

There were 220 known or suspected contaminated sites reported to us under the *Contaminated Sites Act 2003* between 1 July 2018 and 30 June 2019, and 368 sites were classified during the period. Each site typically is classified more than once to reflect new information. By 30 June 2019, a total of 4001 sites had been classified under the Act.

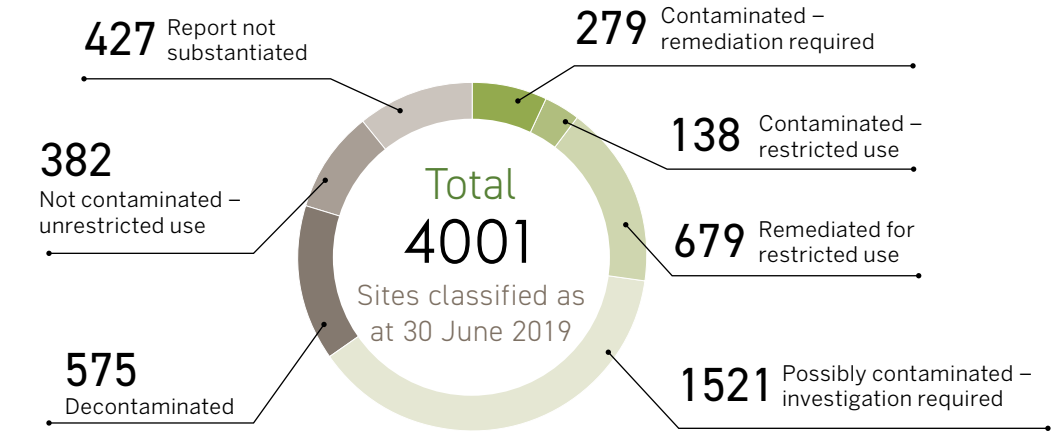
In addition, we reviewed more than 145 acid sulfate soil reports and responded to about 475 requests for technical advice.

➤ Number of sites reported and classified

	Form 1 reports*	Sites classified
2015–16	136	390
2016–17	371	448
2017–18	188	452
2018–19	220	368

*Known or suspected contaminated sites are reported to the department using a Form 1 report.

➤ Classification of contaminated sites



Port Hedland dust management

The world's largest bulk handling port at Port Hedland plays a major role in Western Australia's economy but also significantly contributes to longstanding dust issues in the town.

On 15 October 2018, the government released its response to the *2016 Port Hedland Dust Taskforce report*, which focuses on decreasing dust exposure for the community without jeopardising the industries that underpin prosperity in the Pilbara. The department is leading the whole-of-government response. With funding provided by the government for this purpose, this year we set up a dedicated project team to:

- develop and implement best-practice dust management guidelines for bulk handling port premises, designed to reduce emissions from port operators
- take control of the ambient air quality monitoring network (subject to negotiations with industry), ensuring any incurred costs are covered by industry in accordance with the 'polluter pays' principle

- implement a coordinated risk-based review and assessment of all port operator licences, to incorporate more robust regulatory controls in line with best-practice guidelines.

Controlling odour emissions

We investigated transient odours in the Mandurah area and identified both natural odour sources and odours from industrial facilities. One or more of three prescribed premises located at Nambeelup Farm and licensed by the department under Part V of the Environmental Protection Act were a key source of odour emissions. Odours were recognisable at distances of between 1200 metres and 8 kilometres downwind of the premises.

In response to these odour issues, we completed a risk-based review of the licences for the three prescribed premises. This review process concluded in August 2018 and resulted in all three licences being amended to have additional controls imposed to address the risk of odour emissions and confirm the integrity of containment infrastructure (such as pond liners and hardstands).

Since the completion of the reviews, odour complaints in the Nambeelup area have significantly reduced.

Illegal dumping and littering

We are continuing our air monitoring study for the Nambeelup area with a number of licence holders participating. The study aims to provide a greater understanding of odour sources on the licensed sites and the risk they present. Should the study indicate that there are opportunities to further improve environmental performance, we will work with the licence holders to implement improvements.

Illegal dumping investigations in 2018–19

290
Investigations

44
Charges

20
Charges finalised

Illegal dumping occurs when people intentionally circumvent their obligations to dispose of waste responsibly, such as by dumping waste in the bush. This behaviour impacts many aspects of our community – endangering human health, contaminating groundwater and imposing significant clean-up costs. Not only does illegal dumping damage the environment, it is also unsightly.

Under the Environmental Protection Act, illegal dumping of waste is an offence, with maximum penalties of $62 500 for individuals and $125 000 for corporations.

This year, our Waste Operations Branch investigated 290 illegal dumping and littering complaints. Working with local government authorities and land managers, we identified the offenders through surveillance footage (hidden cameras) and conducted regular patrols of known dumping sites to deter would-be offenders.

During 2018–19, we instigated 26 prosecutions involving 44 charges for illegal dumping of waste and littering. Thirteen illegal dumping and littering prosecutions involving 20 charges were finalised with convictions before the courts.

Through the Pollution Response Unit, we conducted a joint aerial observation program with the Department of Fire and Emergency Services (DFES) to assess waste facilities for fire and environmental risks, assessing over 100 sites and identifying those requiring closer inspection.





Significant incidents response

Across the year, we continued to respond to serious pollution and hazardous materials incidents, in line with Environmental Protection (Unauthorised Discharges) Regulations 2004. Primary responsibility for responding sits with our 24-hour on-call Pollution Response Unit. We work with local government and other state government agencies to respond to such incidents and emergencies statewide.

In 2018–19, we dealt with 3200 reports to our 24-hour Pollution Watch hotline and responded to 387 pollution incidents and emergencies, including several large industrial fires, chemical spills, hazardous materials releases, fuel tanker rollovers and oil spills. Some incidents resulted in significant pollution risks and community concern over potential exposures.

➤ Pollution Watch reports by segment, 2018–19

1630 Odour	471 Referred to other agency	247 Dust	239 Liquid waste
203 Clearing of native vegetation	150 Statutory reporting requirement	133 Noise	122 EP Act licence or legislation breach
85 DWER business query	77 Emission	67 Dumping	67 Smoke
47 Other	44 Unauthorised discharge	29 Tires	17 Solid waste

Specialist officers carried out rapid-field environmental monitoring to determine the risk, took rapid action to protect public health and the environment, provided important advice to the emergency services and collected evidence for future enforcement.

Significant incidents included a 30 000-litre oil spill at Fremantle Port, major scrap-metal fires in Forrestfield and Maddington, industrial fires in Karragullen, Kwinana and Kewdale, and a liquid ammonia release in Kwinana.

In October 2018, we hosted four federal on-scene coordinators from the United States Environmental Protection Agency to provide specialist training for our field officers in hazardous materials incident response. This was a joint exercise with DFES, which provided its training academy for the event.

New intelligence branch

During 2018–19, the Compliance and Enforcement Division incorporated an intelligence function to consolidate and analyse data held across the agency and enable transparent and evidence-based regulatory decision-making.

Management of the department's 24-hour Pollution Watch Service will transition to the intelligence function. Pollution report management will be aligned with best-practice systems and triage processes to improve communication with pollution reporters, data collection and targeting of resources to pollution issues of greatest significance.

Emergency preparedness

Our pollution response officers have been certified or re-certified as emergency drivers after successfully completing accredited emergency driver training.

The training is required to enable the officers to quickly and safely respond to emergencies where air monitoring and other support is required by the emergency services. This includes incidents such as chemical fires and hazardous materials (HAZMAT) spills and discharges.

While many of our pollution incidents are considered routine, there are emergencies where prompt attendance on the scene is required. The department responds to 50–60 emergency incidents per year, with about one per month requiring lights and sirens.

Native vegetation

Clearing of native vegetation is one of the major causes of biodiversity loss in Western Australia. It also contributes to other environmental problems such as erosion, invasive species and salinity.

On 3 May 2019, the government endorsed the development of a general policy on native vegetation, a study of improved mapping and monitoring of native vegetation, and an investigation into strategic regional conservation planning. This follows the announcement by government of an increase in fees for clearing permit applications, taking into consideration the feedback received during consultation for the new fees.

To progress this work, we have established interagency working groups and will consult with interested parties and the community as work progresses throughout 2019–20.

We have improved our performance overall with respect to our target of assessing clearing permit applications within 60 business days.

► Native vegetation regulation

We have improved our performance overall with respect to our target of assessing clearing permit applications within 60 business days. In 2017–18, we reported that 43 per cent of applications were assessed within this target timeframe, which has increased to 49 per cent in 2018–19.

Permit applications from state development (mineral production, mineral exploration, petroleum production and exploration and other) comprised the majority of approved clearing, with most of that occurring within the Kimberley region.

During the year, we received 443 clearing permit applications, granted 287 applications and refused 15 applications. Of these, 69 were applications to amend an existing clearing permit. We took an average of 79 days (excluding stop clocks) to determine these applications.

Clearing permit applications are also assessed and determined under delegation by the Department of Mines, Industry Regulation and Safety (DMIRS). The above performance figures do not include permit applications processed by DMIRS.

To facilitate further performance improvements, this year the government approved improved cost recovery for clearing permit applications. The new fees came into effect on 1 July 2019 and have allowed the creation of new positions.

We also commissioned an independent review of existing processes for the assessment of clearing permit applications. We are reviewing the recommendations and will implement a number of changes through 2019–20 for increased efficiency.

During the final quarter of 2018–19, a significant increase was experienced in relation to new clearing permit applications. Improved processes and the increased resources will help us meet the challenge of efficient and effective assessment of applications received.

► Managing roadside vegetation

This year, we participated in events in Margaret River and Northam that focused on the management of roadside native vegetation by local government authorities. These events were coordinated by the Western Australian Local Government Authority (WALGA).

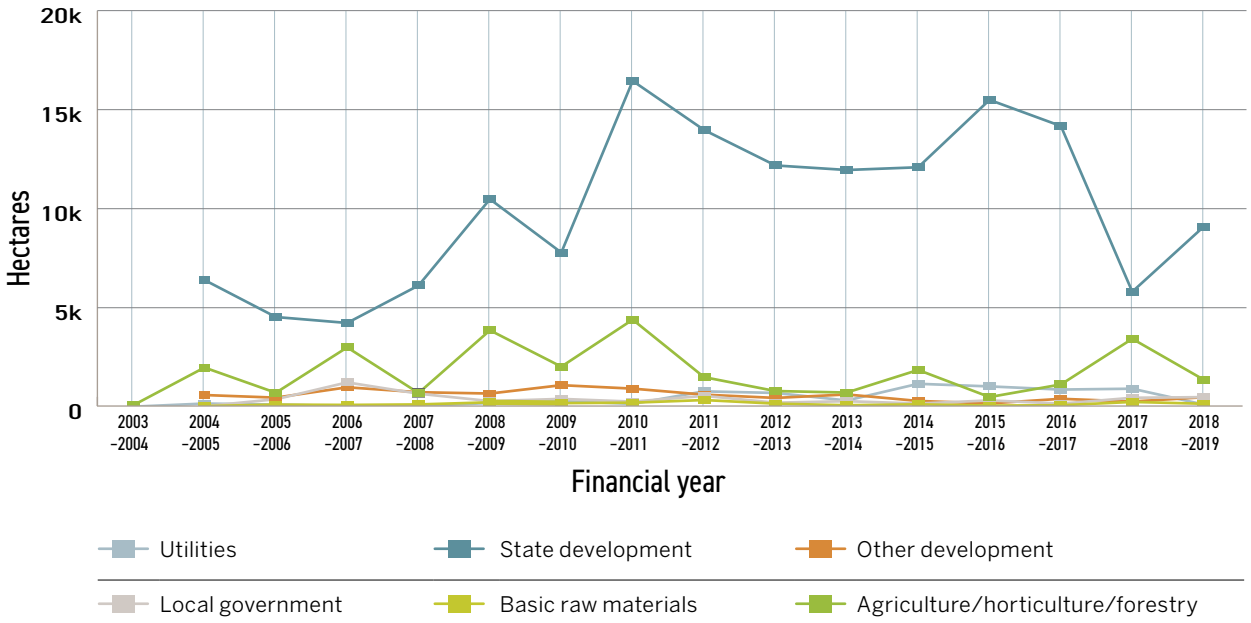
Earlier consideration of potential environmental constraints to road upgrade projects is a core part of our approach to avoid or minimise the extent of clearing. This is also expected to produce benefits for local governments by ensuring that the necessary approvals are in place well before roadworks are due to begin.

► Clearing statistics webpage

We are committed to expanding and improving the transparency of native vegetation information. In December 2018, we published interactive historical statistics online showing clearing of native vegetation that was approved by both the department and DMIRS.

The webpage provides information on the amount of clearing (in hectares) approved and refused through clearing permit applications since the clearing provisions were introduced under the Environmental Protection Act in 2004. The webpage also includes a variety of charts providing data that can easily be sorted by approving agency, industry groups and location.

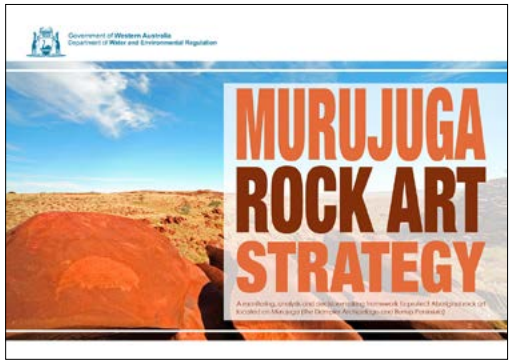
➤ Area granted by industry group



Publishing this data provides the community with clear, accessible information relating to native vegetation, enhancing public trust and confidence. This initiative represents the first step in providing comprehensive, publicly accessible data on an emerging issue.

Feature

Murujuga – hip bone sticking out



Jump to the www.

Murujuga, which means 'hip bone sticking out' in the Ngarluma-Yaburara language, is the traditional Aboriginal name for the Dampier Archipelago and surrounds, including the Burrup Peninsula. It is home to the Ngarda-Ngarli, a collective Aboriginal term for the five traditional owner groups – Ngarluma, Yindjibarndi, Yaburara, Mardudhunera and Wong-Goo-Tt-Oo – who have been part of this cultural landscape for tens of thousands of years and have a deep and spiritual connection to it.

With more than one million images, Murujuga is home to one of the largest, densest and most diverse collections of rock art in the world*. The archaeological record also includes campsites, quarries, shell middens and standing stone arrangements, including lines of up to three or four hundred stones.

Murujuga also hosts multi-billion-dollar industries that contribute significantly to the local, state and national economy and provides employment in the area. Further expansion and future developments are proposed, some of which are being assessed under the *Environmental Protection Act 1986*. Tourism is also emerging as an important economic and employment diversification opportunity for the Murujuga Aboriginal Corporation and the local community.

The government is committed to protecting the rock art of Murujuga and considers that the unique Aboriginal cultural and heritage values of Murujuga can coexist with a well-regulated industry and new economic opportunities that deliver benefits to the local community.

In February 2019, the Minister for Environment released the Murujuga Rock Art Strategy. The strategy establishes the framework for the long-term management and monitoring of environmental quality to protect the rock art on Murujuga from the impacts of industry and shipping emissions. The framework provides a transparent, risk-based and adaptive approach

* Australian Heritage Council (2012). *The potential outstanding universal value of the Dampier Archipelago site and threats to that site*. A report by the Australian Heritage Council to the Minister for Sustainability, Environment, Water, Population and Communities.

Feature story:
Murujuga – hip bone sticking out

that is consistent with the government's responsibilities under the Environmental Protection Act.

The strategy is being implemented by the department in partnership with the Murujuga Aboriginal Corporation. We are working together to oversee the development and implementation of a new world best-practice scientific monitoring and analysis program that will determine whether the rock art on Murujuga is being subjected to accelerated change. This will be undertaken in close consultation with a team of national and international experts in relevant disciplines.

The Murujuga Rock Art Stakeholder Reference Group was established in September 2018 by the Minister for Environment to facilitate engagement between the Murujuga Aboriginal Corporation and key government, industry and community representatives on the development and implementation of the strategy.

Water licensing

Western Australia's prosperity depends largely on secure, sustainable and fit-for-purpose water supplies, where fit-for-purpose means recognising that not all water uses – such as dust suppression and some industrial uses – call for high-quality drinking water. Overall water use in the state has almost doubled in the past three decades and projections show that demand will again double by about 2050.

The rising demand is heightening competition for available water in many parts of the state and, when coupled with the impacts of climate change in the South West, is increasing the number of fully allocated water resources and the complexity of water resource management.

Licensing is our principle regulatory tool for ensuring that the state's water resources and dependent ecosystems are protected, and that water is allocated for productive and efficient use. We issue licences and permits to regulate the use of water for mining, agriculture, horticulture, irrigation of public parks and recreation spaces, and many other purposes that benefit the state's economy and the community.

More than 83 per cent of the state's licensed water supports industry and development, while about 16 per cent is used in homes.

At 30 June 2019, we administered 13 562 licences and permits across the state and managed 465 groundwater and 229 surface water resources respectively.

In 2018–19, a total of 3765 gigalitres was licensed for use. This comprised 2854 gigalitres from groundwater resources and 911 gigalitres from surface water resources. Surface water figures contain licensed dam storage volumes that are not always available for use due to climate and inflow variation.

A total of 3347 licence applications were received in 2018–19 and 2928 were processed. A total of 1683 were licences to take groundwater, 302 were licences to take surface water and the remainder were a combination of permits to interfere with beds and banks,

Water licences administered in 2018–19

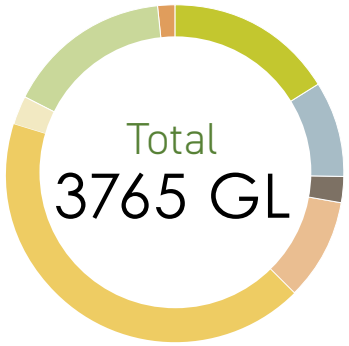
13 562
Licences and permits

S3

Western Australia's water users by sector

Total licensed volume by sector

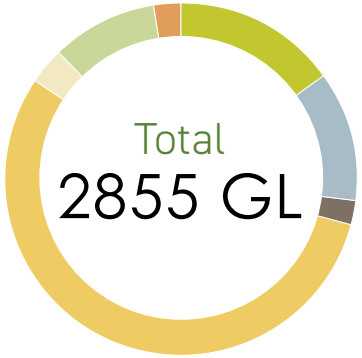
- **Agriculture** 613 GL (16%)
- **Industry and power generation** 99 GL (3%)
- **Mining** 1593 GL (42%)
- **Public water scheme supply** 592 GL (16%)
- **Commercial and institutional** 344 GL (9%)
- **Irrigation scheme supply** 362 GL (10%)
- **Parks, gardens and recreation** 103 GL (3%)
- **Other** 60 GL (2%)



* Other includes environment and conservation, and stock and domestic sectors.

Groundwater licensed volume by sector

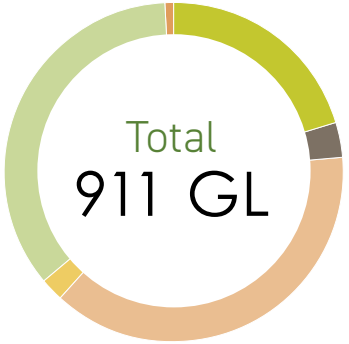
- **Agriculture** 429 GL (15%)
- **Industry and power generation** 68 GL (2%)
- **Parks, gardens and recreation** 101 GL (4%)
- **Other** 71 GL (3%)
- **Commercial and institutional** 342 GL (12%)
- **Mining** 1573 GL (55%)
- **Public water scheme supply** 270 GL (9%)



* Other includes environment and conservation, irrigation scheme supply and stock and domestic sectors.

Surface water licensed volume by sector (allocated volume)

- **Agriculture** 185 GL (20%)
- **Irrigation scheme supply** 348 GL (38%)
- **Public water scheme supply** 321 GL (35%)
- **Industry and power generation** 31 GL (3%)
- **Mining** 19 GL (2%)
- **Other** 7 GL (1%)



* Other includes environment and conservation, commercial and institutional, parks, gardens and recreation and stock and domestic sectors.

licences to construct wells and agreements. Seventy-nine private water entitlement trades between licensed water users were approved in 2018–19, comprising 49 permanent trades and 30 temporary trades equating to a total transacted volume of 24 gigalitres.

In a major milestone, from 31 December 2018 all water licensees across Western Australia with a licensed entitlement between 50 and 500 ML per year have been required to measure and submit their water use online. Our measurement and monitoring of licensed water use was significantly enhanced after the introduction of these changes. Ninety per cent of all water licensed for use in Western Australia now requires metering or alternatively measurement.

Delivery of water licences

Key performance indicators for the assessment of water licences are based upon the time taken to assess the application and level of associated risk. The department has started a targeted program to reduce the total water licensing backlog to less than 350 applications by October 2019. This includes applications

currently under assessment and received more than 65 days previously.

We have reduced the total water licensing backlog by 100 applications (or 21 per cent) since February 2019. As at 30 June 2019, the reported backlog was 477 applications.

The significant reduction in water licensing backlog means we can better meet the timeframes for assessment objectives through 2019–20. In addition, the introduction of fees for assessing water licences and permits from the mining and public water supply sectors has enabled us to increase staff numbers by four and made funding available for systems upgrades to these sectors. Through dedicating extra resources, we have been able to fast track low-volume and low-risk licences.

Protecting drinking water sources

When we turn on our taps, we all expect safe, good-quality drinking water. One aspect of safe drinking water is to make sure recreation events and facilities in drinking water catchments are managed so that contamination does not happen. 'Recreation' in this context refers to a wide range of leisure, pastime or entertainment pursuits, including bushwalking, orienteering, swimming, boating, fishing, camping, horse riding and four-wheel driving. It also includes group outings and commercial activities such as camel trails, llama walks and car rallies.

During the year, we updated the policy guiding events in water source protection areas, making it easier to use and understand. The new policy, published on our website in June 2019, achieves a balance between recreation and the protection of drinking water quality. It also makes it clearer to decision makers and people who are enjoying the outdoors about what they need to consider when planning recreation events and facilities near public drinking water sources.

We also launched a new online tool enabling members of the public to locate public drinking water areas. The mapping tool can be used to find out if you live, work or recreate in a drinking water catchment. It will also show you the public drinking water source areas within a five-kilometre radius of your location. Developed by our Water Source Protection and Information Technology teams, this project was the first of its kind for the department.

Compliance and enforcement

Being a responsive and credible regulator also means consistently applying and enforcing the laws that the department is responsible for administering.

► Environmental compliance

We undertake environmental regulation functions, principally under the Environmental Protection Act, of licensing, approvals, compliance and enforcement in relation to emissions and discharges, waste, noise and the clearing of native vegetation. These licences and works approvals authorise activities that may otherwise be unlawful. Our regulatory functions include ongoing reviews and compliance activities to ensure activities do not pose unacceptable risks to public health or the environment. Enforcement sanctions available to us include formal letters of warning, infringement notices, modified penalty fines or court prosecution.

We manage the risks of non-compliance through a structured, risk-based program to identify and address significant environmental issues. We plan our compliance activities annually, setting inspection targets and reporting on our performance openly and transparently. We consider this approach to be the best possible use of public resources.

Our compliance and enforcement activities are consistent with our regulatory principles in the following key ways:

- Compliance and enforcement resources and activities will be targeted at premises or activities that present the greatest risks to public health and the environment.
- Enforcement action will be proportionate to the magnitude or seriousness of the potential or actual harm to public health or the environment, considering the conduct of the responsible parties.

- Compliance and enforcement decision-making should result in consistent outcomes under similar circumstances.
- Responses will be targeted, effective and proportionate to the risk to public health or the environment.

Being visible in the community is a core part of our approach to address non-compliance. This year, our compliance and enforcement team completed all of its 140 planned inspections of prescribed premises for the year.

We continued to monitor significant proposals authorised under Ministerial Statements, completing all 60 targeted audits of high-risk proposals, including iron ore mining activities, oil and gas facilities and large infrastructure projects.

Our agency works as a team, reflecting our 'better together' value, in delivering our compliance and enforcement program. For example, our team includes water science experts (for impacts on the estuarine environment), noise experts (for advice on the impacts of noise on nearby residences), air quality experts (for advice on a range of emissions), regulatory services and Environmental Protection Authority services (to ensure the regulatory instrument or conditions were effective), the enforcement team (for guidance about issuing statutory instruments), and policy (for guidance on implementing newly introduced legislation and regulating large greenhouse gas emitters).

During 2018–19, we targeted several high-risk matters, some requiring the use of our legislative powers under the Environmental Protection Act, including environmental protection notices, closure notices and vegetation conservation notices. In addition to our structured compliance program, we continued to monitor and manage compliance with each of these statutory instruments issued.

► Waste levies compliance

Landfills can result in issues such as the contamination of soil and water with toxins and the release of greenhouse gases. In recent years, the Government of Western Australia has increased the rate of the waste levy, which works by raising the price of landfill – indirectly increasing the attractiveness of recycling and reducing the actual amount of waste generated.

In 2018–19, we conducted 220 inspections, targeting compliance with the levy. This total includes waste levy compliance inspections, audits of levy return forms to collect information, and inspections of associated industries. Among other highlights:

- Information received from waste industry stakeholders resulted in an increase in investigations related to alleged unauthorised waste activity.
- Relationships with local government authorities regarding potential unauthorised landfilling or waste storage were strengthened, allowing early intervention and minimising environmental impacts.

- We intervened to cease unlawful waste operations at King Road, Oldbury, and supported the local government's prosecution action instigated against the owners of the property, Kingroad Holding Pty Ltd and Global Corp Enterprises Pty Ltd, the operators of the site.
- The focus of our compliance program has broadened to include non-landfill waste premises to identify and track waste to the final disposal points to identify levy evasion.

► Environmental breaches

In 2018–19, we received and assessed more than 1400 reports of alleged breaches of environmental legislation. We issued 32 formal letters of warning and nine infringements. In addition, we issued nine vegetation conservation notices, requiring offenders to revegetate areas that were assessed to have had native vegetation cleared without the necessary approvals or exemptions.

We initiated two prosecutions for failure to comply with a hazard abatement notice issued under the *Contaminated Sites Act 2003*. One prosecution was initiated for a company that discharged hydrocarbons into the environment. Two prosecutions were initiated for the clearing of 16 hectares of native vegetation in Boonanarring.

Two modified penalty notices for $10 000 and $12 500 were issued to a mining company for failing to comply with a works approval and causing unauthorised emissions. A $12 500 modified penalty notice was issued to a mining company for failing to comply with a licence condition.

Three convictions were recorded during 2018–19:

- A company constructing a cattle feedlot in Warradarge was fined $30 000 for constructing it without approval, causing significant erosion.
- A company was fined $25 000 for clearing 40 hectares in Waddington and Walebing, without approval. The company was ordered to revegetate all 40 hectares.
- A company that operated an abattoir was fined $12 500 for breaching its environmental licence and $2500 for an unauthorised discharge.

Penalty notices are available on the department's website.

► Water compliance

Water is a precious resource, particularly within the context of climate change, increasing population and growth in the state's economy. We administer water resource management legislation that enables the take of water while protecting our water-dependent environments.

Legislation provides the basis on which water is allocated to users in Western Australia, and also prescribes offences and penalties for circumstances where statutory provisions are breached. We undertake a range of compliance and enforcement activities primarily aimed at the protection of the water resource and the water-dependent environment.

Cost recovery

In 2018–19, our on-ground compliance monitoring effort was targeted to at-risk management areas across Western Australia. A total of 4367 compliance monitoring events were completed, consisting of comprehensive on-ground water licence compliance inspections, water meter audits, desktop water use surveys and a review of licensee submissions.

Investigative and enforcement activities were prioritised based on the seriousness and scale of the alleged offence, the conduct of the responsible parties and public interest considerations. We focused on offences that posed the greatest risk of harm to water resources or that undermined public confidence in effective water resource management. Examples of detected non-compliance included the unauthorised taking of water, exceedence of licensed water entitlements, and failure to install water meters and submit readings.

In 2018–19, 780 investigations were finalised, resulting in the issue of 278 education letters and warning notices aimed at encouraging and assisting voluntary compliance. We also continued to deliver broad-scale and targeted stakeholder education initiatives, which sought to assist licensees' understanding of their statutory obligations and comply with the terms, conditions and restrictions of their individual water licences.

Where voluntary compliance could not be achieved, we escalated our response to statutory enforcement action. In 2018–19, 38 infringements and 13 directions were issued and one prosecution was instigated, which resulted in a conviction.

Water compliance in 2018–19

780
Investigations

278
Letters and notice issued

Increased fees for our industry regulation activity and native vegetation clearing, as well as new water licence assessment fees for the mining and public water supply sectors, reflect the government's policy to recover the costs where there is significant industry benefit.

From 1 July 2018, fees for environmental licensing were increased by 14 per cent, reflecting the true cost of environmental regulation of industry. This included increases for works approvals, licences, amendments and registrations.

The extra revenue raised was reinvested in the department to employ additional staff in the industry regulation and compliance areas, and in systems to improve the timeliness of decision-making on environmental approvals.

Contemporary regulation recognises the principle of user pays and that proposed cost recovery will help the department to meet the expectations of our customers, through the future funding of regulatory services to improve our performance and timeliness.

Fees for clearing permit applications had not changed since the clearing provisions were enacted in 2004 and represented an under-recovery rate of 99 per cent.

Between July and November 2018, we undertook extensive consultation on a proposal to increase these fees. The consultation included regional and metropolitan workshops held in September and October. One hundred written submissions were received and 257 people attended the information and workshop sessions. In response to submissions, proposed fee increases for clearing of areas under five hectares were reduced.

The new fees were introduced on 1 July 2019 through amendments to the Environmental Protection (Clearing of Native Vegetation) Regulations 2004. The government committed to reinvesting the additional revenue into staff and business systems to improve the timeliness of decision-making.

► Water licensing fees

Contemporary water management across Australia recognises the principle of user pays with water licensing fees for the mining and public sector water supply sectors paid by licensees. Before the introduction of fees in November last year, Western Australia was the only Australian state that did not recover the costs of licensing services from applicants or holders of water licences and permits.

On 13 November 2018, the government introduced new fees for assessing water licence and permit applications from the mining and public water supply sectors. The fees recover costs associated with assessing water licence and permit applications. These new fees, made by amendments to the Rights in Water and Irrigation Regulations 2000, relate to applications for:

- a new section 5C licence to take water
- renewing a section 5C licence to take water
- licensee amendments to a section 5C licence to take water
- a section 26D licence to construct or alter wells
- section 11, 17 or 21A permits to interfere with the bed or banks of watercourses.

The mining and public water supply sectors are two of the largest water users by total volume requiring significant effort in assessing licence and permit applications. The fees for these two sectors recognise the need to meet the

costs of assessing water licence and permit applications from which the industries derive a benefit.

Only the applications that trigger assessment are subject to fees. The fee structure is based on the level of effort for assessing an application and generally increases with the scientific complexity and potential environmental impact of the application.

Online services

We aim to provide easy-to-use digital and support services to help people and companies manage their water and environmental business. By moving low-complexity interactions to digital services, we are improving the client experience, as well as reducing our costs. Our key stakeholder survey reveals that 78 per cent of all users rated our website as helpful.

► Environment Online

We continued to work towards the delivery of Environment Online, a major project under our digital strategy. It incorporates expansion of our Water Online platform to replace legacy environment regulation business systems. Environment Online will enable us to effectively deliver a one-stop-shop for water and environmental approvals and reporting processes by creating an efficient and integrated online platform for industry and developers.

The business case for Environment Online is under development for submission to Treasury in 2020. This project will support Streamline WA, a whole-of-government approach to make it easier to do business in Western Australia by improving regulation and regulatory practice.

► Water information reporting

Our water information reporting (WIR) and geographic information system (GIS) services provide water data and information that is used to inform investment decisions of local, regional and state significance, and supports other government agencies and stakeholders in their planning for future economic growth, and urban and rural development.

The portal has been operating successfully for the past five years to provide reliable, customised water information quickly and easily. This free online service provides instant access to more than 132 600 water monitoring sites and over 94.6 million measurements.

During the year, the WIR portal received nearly 5000 requests for water information, comparable to last year's figures. We also received 144 requests for spatial information

and provided over 5500 spatial datasets, mainly to the private sector.

Together the WIR portal and GIS services provided data and information on the quantity, quality, location of and demand for water across the state. Information from the portal is delivered instantaneously and puts vital information at the fingertips of consultants, miners, land and property developers, farmers, infrastructure providers, government departments, researchers and students. Requests for data came mainly from the private sector, government and the education and research sectors.

Water data and information supports a viable, sustainable resource for public benefit while enabling individual economic benefits. Scientists and planners across the public sector use the data for modelling and assessments to help determine flood risk, drainage management, sustainable water allocations and, importantly, water resource planning for the benefit of the wider community.

► Water Online

The Water Online system has been available to water users to lodge their water licence applications since 2015 and to departmental officers to complete online assessment of applications since June 2017. We continued to promote the uptake of the Water Online customer portal by licensees, which has seen the number of registered customer portal users grow to 3952 at 30 June 2019. The proportion of water licence applications submitted electronically remained steady at 64 per cent in 2018–19. We are investing in system enhancements to expand the functionality of the customer portal and improve the overall user experience.

S4

Strategy 4

Delivering trusted information, science and evidence-based advice

This section focuses on the confidence we give to a wide range of organisations and people, sharing data and fostering innovation. By providing information to help people improve their decision-making, we contribute to the knowledge base for all sectors to access and share.

Our information and advice is vital to supporting important decisions, whether it be to inform the advice of the EPA to the Minister for Environment, land use planning decisions by local governments or the Western Australian Planning Commission, new water allocation plans, understanding air quality challenges across the state, our own regulatory functions or the work of universities and other departments.

Biodiversity surveys

Western Australia has eight out of Australia's 15 declared biodiversity hotspots and one of the highest rates of new species discovery in the world.

Due to the vastness of the state, rich biodiversity and a finite research capacity, there is a gap in knowledge about many species and ecosystems. But one year on from its launch, our Index of Biodiversity Surveys for Assessments (IBSA) is well on its way to fixing the 'missing link' in biodiversity data management in Western Australia.

IBSA creates a digital record of plants and animals obtained from everybody who conducts a biodiversity survey in Western Australia to support their environmental assessment. Capturing and sharing this data makes best use of existing effort, providing a cost-effective and efficient way of maintaining data currency over time.

During the year, we continued to collaborate with the other agencies and organisations involved – the EPA, DMIRS and the Atlas of Living Australia, which are partners in IBSA's ongoing operation, and with the Western Australian Biodiversity Science Institute, which facilitated IBSA from the start.

► Marine ecosystems

With the longest mainland coastline (12 889 km) of all Australian states and over 90 per cent of our population living within 100 km of the ocean, Western Australia truly is a marine state. The function of assessing and managing activities that may impact on Western Australia's marine environment rests with our Marine Ecosystems Branch. This branch is the primary source of marine technical and scientific advice and guidance to the EPA, industry and government.

This year, we provided formal advice to inform the environmental impact assessment and compliance monitoring of 28 development proposals under Part IV of the Environmental Protection Act as well as technical advice on four licences and work approvals under Part V of the Act.

Following the release of a report by the Western Australian Marine Science Institution, we are refining the EPA's technical guidance for marine dredging proposals. The development of one consolidated guidance package will make it easier for our stakeholders to find the information they need, when they need it. It will give clarity and direction to proponents and regulators alike on best practice environmental impact assessment for dredging projects.

An Index of Marine Surveys for Assessment under development will capture and consolidate marine survey data used to support environmental impact assessments under the Act and provide a platform to make this data publicly available. This improved environmental information will complement the biodiversity data captured in IBSA.

In 2018–19, the Marine Ecosystems Branch provided technical support to the *Westport: Port and Environs Strategy* and the revision of the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*.

Environmental noise

In our role of supporting the administration of the Environmental Protection Act and the Environmental Protection (Noise) Regulations 1997, we provided formal environmental noise assessment advice, data analysis and reports to the EPA and external agencies on 70 occasions.

We provided training in environmental noise to local government authorised persons and inspectors in November 2018 as well as in May 2019. We presented research on the jurisdictional comparison of noise criteria for entertainment noise at the Environmental Health Australia National Conference in November 2018.

PFAS management plan

We continue to work to achieve the objectives of the *Contaminated Sites Act 2003* to protect human health, the environment and environmental values by providing for the identification, recording, management and remediation of contaminated sites in Western Australia.

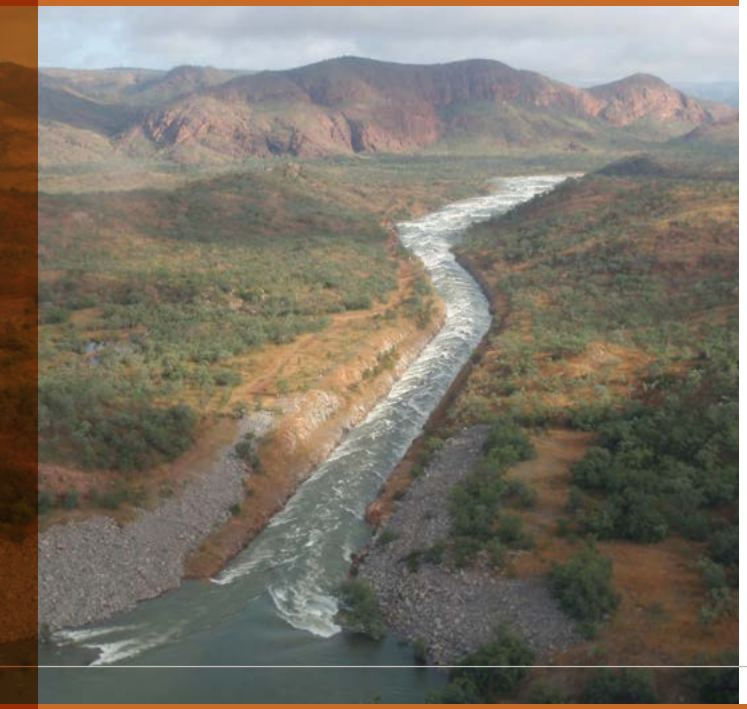
Dealing with perfluoroalkyl and polyfluoroalkyl substances (PFAS) has been a focus of the Contaminated Sites Branch this year. PFAS are a family of manufactured chemicals which do not occur naturally in the environment. Used in a range of common household products as well as in firefighting foam since the 1950s, they are contaminants of emerging concern in Australia and internationally. As a result of widespread use, PFAS have been found to be present in low levels in soils, surface water and groundwater in most urban areas around the world, including in Western Australia.

The first PFAS National Environmental Management Plan (NEMP), released in February 2018, listed recommended work to be included in future updates. During the reporting period, we continued working closely with the National Chemicals Working Group and the National Contaminated Environments Network to incorporate additional guidance in key areas such as wastewater management and soil reuse. Public consultation on the draft updated PFAS NEMP 2.0 was undertaken from March to July 2019. Contaminated Sites and the Strategic Policy team worked together to manage Western Australia's input to the consultation process.

We also advised on the Australian Government's firefighting foam investigations on Department of Defence lands.

Feature

Lake Argyle: traditional owners recognised



It is 40 years since the Durack Homestead, relocated piece by piece to the southern shores of Lake Argyle near Kununurra in the Kimberley region, was opened as a museum.

The anniversary was celebrated in June 2019 when the government announced it would hand back part of the historic Durack pastoral lease in far north Western Australia to the traditional owners of the region, the Miriuwung and Gajerrong (MG) people.

Members of the community, MG Corporation and visitors met at the historic Durack Homestead on the edge of Lake Argyle, which holds painful significance for local Aboriginal people as their lands were drowned without consultation and with it their cultural heritage irreversibly changed.

Lake Argyle was formed after the construction of the Ord River Dam 55 kilometres upstream, which was completed in 1973. In 1996, the spillway from Lake Argyle was raised by six metres to improve reliability of water for hydroelectric power generation.

During the past 12 years, the region has set up a joint management committee comprised of department staff and the four MG language groups ('Dawang') that share cultural responsibility over the expanse of Lake Argyle.

Our Kimberley team prepared a water management plan that involved many of the elders visiting their drowned country by boat for the first time and mourning its loss, providing us with a different perspective on the lake that is now the lifeblood of the agricultural region of the Ord. Acknowledging the loss that enabled development of the Ord has been critical for reconciliation and looking to the future.

The Ord Final Agreement identified an aspiration for sole management by MG Corporation of the land handed back (Reserve 31165) and efforts have been directed to this objective through capacity building initiatives, joint decision-making and development of a ranger program to help manage the country.

Feature story:
Lake Argyle: traditional owners recognised

We now support the Department of Planning, Lands and Heritage to progress sole vesting. This is part of the work of our Kimberley team of 15 staff based in the Kununurra office, who deliver a wide range of business including water licensing, planning, industry regulation, strategic policy, and water measurement and monitoring.

The Kimberley has most of the state's wild rivers, many Ramsar-listed and significant wetlands and some of the largest naturally flowing river systems in the country. The pastoral industry, mining and tourism dominate the economy. More recently, the expanding agricultural sector has increased demands on our water and environmental regulation services.

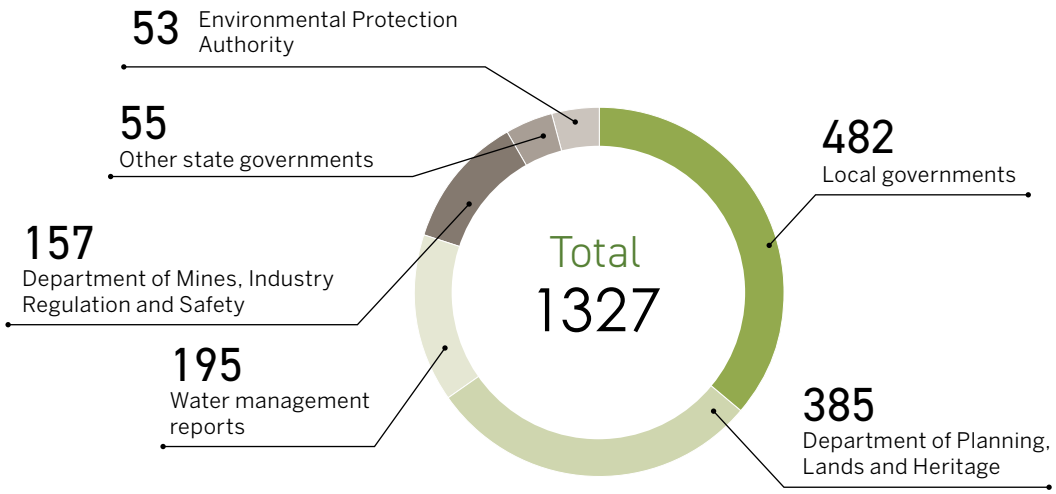
Aboriginal cultural values are internationally recognised in the Kimberley and require special consideration in water and environmental management.

Land use planning advice

One of our primary roles is to help other decision-making agencies and project proponents to manage impacts to the state's water resources and the environment from land planning and development proposals. We do this by providing specialised water and environmental advice services to inform, guide and direct other decision-makers, preferably for early intervention.

This year, we assessed and responded to 385 requests for water advice from the Department of Planning, Lands and Heritage; 482 from local governments; 157 from the Department of Mines, Industry Regulation and Safety; and 53 from the Environmental Protection Authority. We also responded to 55 requests from other state government agencies and advised on 195 water management reports associated with land planning and mining activities.

➤ Land use advice provided by segment, 2018–19



Surface water and groundwater investigations

We undertake groundwater and surface water investigations and water modelling throughout the state to ensure government and industry have timely knowledge of resources used for drinking water supply, agriculture, horticulture, mining and industry in areas where it is most needed.

The combined investment of $4.89 million in 2018–19 included $3.94 million of investment in the State Groundwater Investigations Program, plus $0.95 million in the Water Modelling Program. These programs completed 4863 metres of drilling and installed 41 new monitoring bores, collected 195 samples of water for chemical analyses, built four water models and began six new models.

Our water investigations provided an understanding of which parts of the Fitzroy River discharge to groundwater, which parts rely on groundwater for flow, and how much the aquifers are recharged from rainfall. These results will inform management policies and licensing rules in the Fitzroy water allocation plan, scheduled for release for public comment in early 2020. The allocation plan

is one of a suite of initiatives delivering on the government's election commitment to protect the Fitzroy River.

Bores installed in the Cockburn and Peel Coastal areas allow us to monitor the movement of the seawater interface and sustainably manage coastal aquifers that support the Western Trade Coast and green space in Mandurah.

On-ground works to explore the potential for storage of recycled water though managed aquifer recharge in partnership with the Western Regional Organisation of Councils are complete, and our hydrogeologists are analysing and interpreting data. The project supports long-term management of Gnangara groundwater and informs future water supply planning for irrigation of public open space, sporting areas and other green space.

Through the East Midlands investigation we are installing a new groundwater monitoring network between Moora and Gingin to improve our understanding of groundwater availability and help address water needs for horticulture and the environment, in particular Gingin Brook. The investigation has progressed significantly, with on-ground works expected to be complete early in the 2019–20 financial year.

We assess the age and condition of groundwater monitoring bores, which provide vital water information about groundwater resources, to determine ongoing maintenance and replacement. The bore replacement program is essential to protect the state's groundwater monitoring network, comprising about 9000 bores. We replaced about 20 deep artesian monitoring bores and numerous (20–25) 'bore head assemblies' that deteriorate on the ground. We replace many shallow monitoring bores annually.

In 2018–19, we monitored 242 surface water sites across the state using telemetry to capture real-time information on stream flow. We also captured telemetered water quality data at 15 key locations, mainly in rivers and estuaries in the South West.

We have instrumentation and assets at 275 operational river gauging stations and 229 operational meteorological sites. The typical cost of one replacement river gauging station is between $200 000 and $800 000.

Our monitoring program improved significantly in the past 12 months with changes aimed at ensuring quality data is captured, analysed and delivered to client expectations and our own standards.

The Monitoring and Measurement Steering Committee adopted broader representation and a strong focus on ensuring that all elements of our measurement program have a voice in strategic decision-making.

The steering committee has put in place a Measurement Lead team to bring together the best hydrographers from around the state to coordinate their programs effectively and discuss technical improvements in data capture and analysis. The Technical Advisory Group continued to assess project proposals for the committee's consideration. These processes have fostered a high level of internal

cooperation in our measurement program and delivered improved levels of program efficiency.

All regions delivering measurement programs are implementing operational plans to assess surface water and groundwater operations across the state. The Regional Coordination and Measurement Group also completed scoping work in 2018 to estimate regional measurement workloads and to identify the number of staff required in each region to perform work tasks.

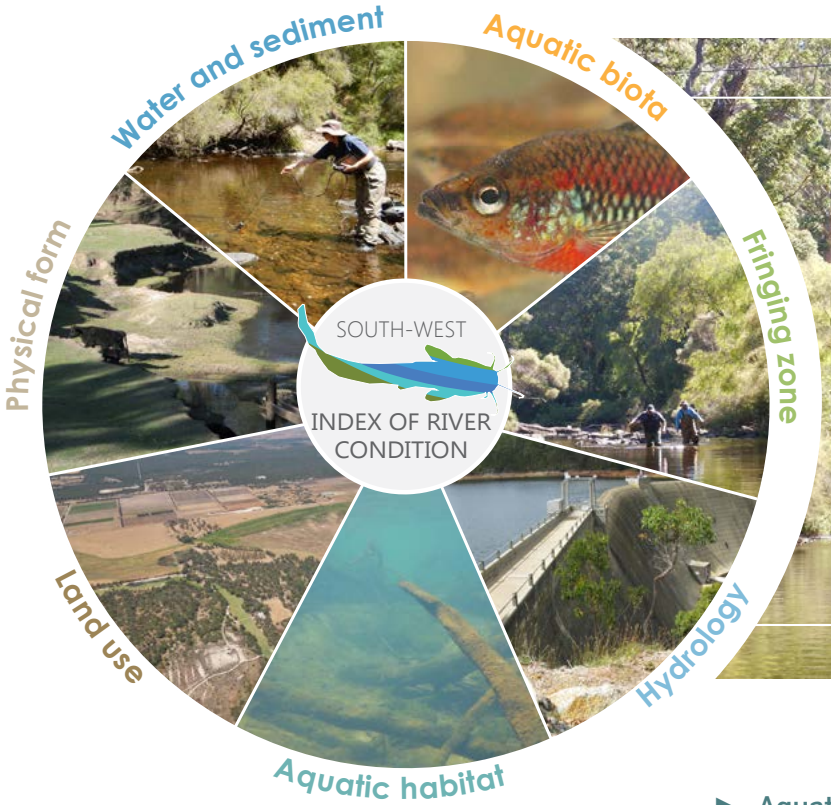
Key operational achievements over the past year include:

- implementation of our groundwater telemetry trial, to deliver real-time groundwater data for all regions
- auto-archiving of measurement data, with nearly 80 per cent uptake
- appointment of additional staff to the North West Measurement Program, with the extra capacity used to better understand and improve the quality of flow data, undertake minor capital works and establish groundwater monitoring programs for areas such as La Grange in the Kimberley
- re-establishment of the principal hydrographer position to provide statewide program coordination and two permanent regional measurement program managers (Swan and North West regions)
- building several priority hydraulic models to improve the quality of data measured at streamflow gauging stations to support resource management decisions
- completion of bathymetric surveys of the Hardy Inlet – part of the Regional Estuaries Initiative – to help understand water and sediment movement in the tidal reaches of the inlet
- completion of bathymetric surveys of two pools in the Collie River to support licensing decisions associated with discharged mine water to the river. Bathymetric surveys allow us to measure the depth of a waterbody as well as map the underwater features of a waterbody. We use the data for a range of purposes including environmental management (for example, establishing baseline data to support environmental monitoring) and for maintaining healthier ecosystems.

Healthy rivers

The Healthy Rivers Program collects and interprets data about rivers and their catchments, and uses the knowledge gained to provide advice to underpin river management. Central to the program is long-term, standardised assessments of strategic river health sites, as well as assessment of emerging issues as required. In addition to use by the department, all river health information, as well as assessment methods and guidance, is made available to support others in assessing and managing rivers.

One aspect of regulation is providing information on environmental flows to allow for abstraction and use of surface water in a way that does not undermine ecosystem values. This program undertakes river health assessments across the south-west of Western Australia which documents the condition of streams and informs the setting of appropriate river flows. It audits compliance against set environmental flows and forms a robust science and evidence base.



In 2018–19, assessments were conducted at 47 sites from Gingin Brook in the north to Chapman Brook in the south, encompassing 13 catchments. River condition summaries have been completed for an additional 40 sites from the Murray River in the north to Scott River in the south. A summary of data from river health assessments (dating back to 2007) will be published later in 2019.

► Aquatic science

Our estuary scientists (chemists, oceanographers and phytoplankton ecologists) investigate water quality changes in estuaries from climate and landscape activities to help inform management decisions. Their research is available on the regional estuaries website rei.dwer.wa.gov.au. This online service will be expanded to the river science team next year. During the year, both groups shared their assessments with universities, community groups and industry.

Water for Peel Food Zone

The Peel Integrated Water Initiative, a key component of the Transform Peel program, is investigating potential solutions to future water demand in the planned Peel Food Zone, north-east of Mandurah. Its aim is to support water resource development in line with planned growth, while addressing nutrient enrichment in the Peel-Harvey estuary.

In partnership with the Department of Primary Industries and Regional Development, the Peel-Harvey Catchment Council and CSIRO, we carried out several studies in the planned zone during the year, including ecological water requirements, water resource assessments, nutrient reduction strategies, development scenarios and associated water demand modelling, and identified alternative, technically viable water sources (i.e. stormwater drainage, wastewater recycling, managed aquifer recharge).

We are using the results to define environmental water requirements, review existing allocation limits and finalise supply–demand analyses in 2019.

High value horticulture

The State Groundwater Investigation Program installed 21 monitoring bores this year for the $5.1 million East Midlands investigation. This high-value horticultural area has been called the Northern Food Corridor by the Wheatbelt Development Commission and is already home to irrigated crops such as olives, grapes, citrus, mangoes and stone fruit produced in the shires of Gingin, Dandaragan and Moora.

The exploration bores drilled across the Dandaragan Plateau between Gingin and Moora will help support agricultural growth by determining how much groundwater is available to keep growing food while sustaining natural environments. The impacts of climate change on regional aquifers and local streams are also being evaluated. Western Australia relies on groundwater for drinking supplies, irrigated agriculture, local industry, mining, economic development and liveable communities.

Finding water in southern forests

The Southern Forest Irrigation Scheme is an agricultural irrigation scheme proposed for development in the Manjimup-Pemberton area in the south-west. The scheme would comprise a 15-gigalitre dam on Record Brook and a pipeline distribution network that will supply water to irrigators who have purchased a water entitlement.

The government led an investigation into the feasibility of the scheme as part of the Water for Food program. This information will be used to support the Environmental Protection Authority's independent assessment of the scheme in 2019. Pending approval, the scheme will be owned and operated by the Southern Forests Irrigation Co-operative Ltd and all scheme water users will be members of the cooperative.

As part of our research for the scheme, we surveyed aquatic fauna, estimated the reliability of supply for the scheme under different climate change projections, and established the management conditions on when, and at what rate, water could be taken for the scheme, to manage any risk to the environment.

Distinctive water model

Our Water Supply–Demand Model continues to garner interstate and international interest, including being shortlisted in the final 12 best conference papers at OzWater '19, Australia's international water conference and exhibition.

The model is unique in that it provides projections of future water demand and availability for all water resources across an entire state jurisdiction. It indicates where in Western Australia the sustainable use of groundwater or surface water will not be enough to support our future population and economic growth, so we can plan ahead for alternative water supplies.

Water use in Western Australia has more than doubled in the past 30 years. During this time, groundwater has replaced surface water as the main water source and mining has surpassed irrigated agriculture as the state's major water user.

We use the model to project the future water demand for more than 1400 water resources across the state. It works by applying forecast economic and population growth rates to the current volume of water used from each resource by 75 different types of water user.

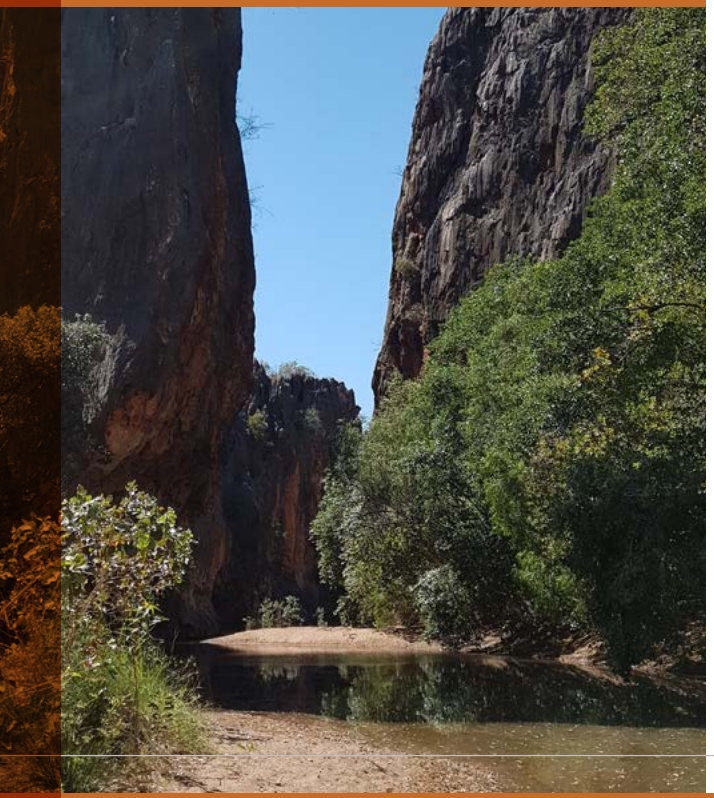
These growth rates are derived from equilibrium modelling of the state's economy and population forecasts from the Western Australian Planning Commission. To calibrate the model results and identify where 'trend-breaking' water demand might occur, we consulted with 32 stakeholder groups representing the agriculture, mining, regional development, urban development and water services sectors, as well as local and state government agencies.

Principal Water Planner Daniel Ferguson and Water Resource Planner Amy Cowdell developed our innovative model, which projects demand 40 years into the future.

This program demonstrates how we provide relevant, transparent and credible information to create a shared understanding about our future water outlook, set strategic directions for our water resources and supplies, and collaborate with the stakeholders responsible for the state's sustainable development.

Feature

Drone power over Mount Pierre Creek



Galeru Gorge is a picturesque locality on Mt Pierre Creek in the Kimberley region of Western Australia.

Almost 50 years ago, scientists set up a gauge immediately upstream of the gorge to measure flows from the small catchment. There are very few catchments in the Kimberley of this size where runoff is measured for important infrastructure and water resource development studies.

Recording streamflow depends on a defined and reliable flow rating. As the previous flow rating at Mount Pierre Creek was poorly defined and the flow record very uncertain, we used a hydraulic model to produce a more accurate flow rating.

This hydraulic model required a high resolution digital elevation model (HRDEM) to define the geometry of the gorge. In developing the model, we used a drone and image recognition technology to capture a point cloud (a set of data points in space) of more than 83 million ground points. We used GIS software to post-process the point cloud to produce an HRDEM suitable for our purposes.

The project team included members with skills and knowledge in hydrography, spatial and hydraulic modelling.

S5

Strategy 5

Building organisational excellence

This section focuses on our professionalism, capability and productivity. In 2018–19, a huge amount of work went into evolving our three former departments into a unified whole, engaging our staff, improving the stakeholder experience and reinforcing a service culture in the department for the long haul.

Prime House officially opened

Our new head office, Prime House in Joondalup, was officially opened on 16 April 2019 by Premier Mark McGowan, in an event that celebrated the department's amalgamation and relocation.

Director General Mike Rowe met with guests including the Minister for Environment Stephen Dawson and Minister for Water Dave Kelly, other members of parliament, Noongar representative Walter McGuire and a large number of stakeholders from other departments, as well as media representatives.

Following speeches and the plaque unveiling, guests toured the building and inspected key project areas.

Speaking at the opening, Premier McGowan said the government recognised the vital role the department played in the development of Western Australia and the creation of jobs while protecting the environment and water resources.

He congratulated all those involved in the design, delivery and commissioning of the new building and thanked our staff for their work in

looking after the state's environment and water resources and supporting development for all Western Australians.

More than 700 head office staff have moved to the bright, modern, leased building in the City of Joondalup. The relocation will save an estimated $28 million over 15 years and reduce the government's office accommodation footprint by 3800 square metres.

The relocation is also expected to play a significant role in the future growth and development of Joondalup as a vibrant and vital city centre, especially for the small businesses that stand to benefit from the increased foot traffic and commerce.

Our first Reconciliation Action Plan

Our inaugural Reconciliation Action Plan promotes greater cultural awareness and inclusion in the management of Western Australia's water resources and environment. The plan, launched by the Minister for Water in May 2019, commits us to 50 actions in the next two years to enhance positive relationships with Indigenous communities.

These actions include:

- greater engagement, recognition and incorporation of Aboriginal knowledge in managing the state's water resources and environment
- improving cultural awareness within the department
- increasing employment opportunities for Aboriginal and Torres Strait Islander people
- providing greater economic benefits to Aboriginal and Torres Strait Islander people through our state's *Indigenous procurement policy*.

Launching the plan, the Minister for Water said: 'I look forward to seeing the knowledge of Western Australia's traditional custodians play a greater role in the management of our water resources and environment.

'Aboriginal people have looked after our country for tens of thousands of years. We have an opportunity to learn from their extensive experience in managing our water resources and environment. The state government is seeking recognition of Aboriginal spiritual, social and cultural values as well as rights in legislation and policies that manage water resources and the environment.'

The Minister for Environment commented: 'Providing economic opportunities that allow communities to thrive is central for our government and the future of Aboriginal and Torres Strait Islander people.

'Strengthening our relationships with Aboriginal people and communities will help protect and promote Aboriginal cultures, histories and land, as well as provide opportunities for social and economic benefit.'

In our new building, which is situated on Noongar Boodja Country, our respect for and recognition of local culture is evident in the Noongar names for meeting rooms. We have commissioned Whadjuk Noongar artist Sharyn Egan to create artwork for the glass panels in the foyer. Also indicative of our respect for the area's traditional owners, customary dances and a smoking ceremony were held to welcome staff to the new offices in April.

Awards and recognition

Individuals and teams from across the department have been recognised for their outstanding work and commitment and for leading the way in their field. Many have been recognised with formal awards, a testament to the calibre of our staff and their dedication to their work and to improving our performance.

This year Sandie McHugh, our A/Director Water Science and Data, was awarded Leader of the Year working within a division/team/organisation by the Institute of Public Administration (Western Australia). The award recognised her outstanding leadership and, particularly her exceptional work in leading the development of our values and culture. When the department was formed in 2017 following the merger of three agencies, Sandie recognised that developing a new culture would be critical to success. She took on the responsibility of driving the development of the department's values that supported the way the new agency would operate on every level.

Our Chief Digital Officer, Yordan Petrovski, received a commendation for Information Technology Practitioner of the Year. His busy

year started with the information, technology and communication merger of three former agencies, so our new department could operate seamlessly as one agency. That was followed by the task of addressing 127 remediations identified by the Office of the Auditor General to improve and modernise the department's digital technology. Then he was charged with the responsibility of moving the new department to state-of-the-art premises in Joondalup. Along the way, he worked with Edith Cowan University to develop advanced cyber security tools to protect sensitive agency information.

Our Contaminated Sites team also received a commendation for best practice in collaboration across government agencies at the Institute of Public Administration (Western Australia) awards for their work with the Department of Planning, Lands and Heritage in addressing lead contamination at Northampton.

Our Director of Environmental Science, Kerry Laszig, was recognised for her achievements as an environmental management expert for the state government with the department awarding her the Australia Day Achievement Medallion, presented by the Minister for Environment. Kerry has led the development of the state's contaminated sites legislation and the establishment of the statutory function of contaminated science classifications in Western Australia. She has influenced national thinking on the responses to contaminants in firefighting foams, focusing on a practical approach that manages risks to human health and the environment, including contributing to the development of a national environmental management plan.

In October 2018, our Revitalising Geographe Waters program was recognised by industry with a state Australian Water Association Award for program innovation.

Our floodplain mapping tool, which makes it easy for the public to assess flood risk in their areas, was nominated for an award at the 2019 Floodplain Management Australia national conference held in Canberra.

Our 2017–18 annual report won a bronze award in the 'Agencies with less than 1000 FTE' category at the 34th annual WS Lonnie Awards, which recognise excellence in annual reporting.

Graduation ceremony

It is important for the department to recognise the hard work and dedication of staff in pursuing professional development and further studies. Developing and expanding expertise is not only good for personal growth, but also for the department which relies on having skilled, passionate people.

On May 13, the Minister for Water joined the department at its inaugural staff graduation ceremony, which recognised and celebrated each recipient's successful completion of corporate training undertaken in 2018.

The training programs included Certificate IV in Leadership and Management, the LEAD Program, the Formal Mentoring Program, Certificate IV in Government (Investigations), the International Water Centre – Water Leadership Program, the Copland Leadership Program and the Aboriginal Traineeship Program.

Stakeholder survey

Two of our values are being open minded and building trust. One of the ways that we do that is to survey our stakeholders about what they think of our work, how effective we are and what we could do better. Each year, we measure the 'proportion (%) of stakeholders who perceive the department to be effectively managing the state's water as a resource for sustainable productive use'.

The first benchmark survey was conducted by the former Department of Water in March 2015 and the annual research showed improved relations with water stakeholders for three years.

The 2018 result, the first for the amalgamated department, showed a slight fall in perceptions and the 2019 results showed a material fall. The 2019 research sampled about 1540 stakeholders and the questions were similar to last year, to allow for comparisons with previous years, with the addition of questions about the amalgamation and the move to Joondalup.

Importantly, measurements of such things as the competence of our staff, the provision of sound advice, and providing clear explanations for decisions, remain at high levels and have not moved.

Surveys like these help us understand our clients better and shape the way we engage with them, suggesting what we can do to build on what is working well and address what is not going well. In light of the 2019 results, we are reviewing our approach to communications and stakeholder engagement to address the issues raised in the research.

Diversity and inclusion

In 2018–19, we engaged, consulted and delivered a broad range of programs, celebrations and events, supporting diversity, resilience, inclusion and healing.

In July 2018, we invited Professor Colleen Hayward to present the annual NAIDOC Week address to staff. The Welcome to Country for the celebrations was from Rose Walley on behalf of the Whadjuk Noongar people. NAIDOC Week celebrations are held across Australia each July to celebrate the history, culture and achievements of Aboriginal and Torres Strait Islander peoples. NAIDOC is celebrated not only in Indigenous communities, but by Australians from all walks of life.

Other celebrations included International Men's Day, International Women's Day, Harmony Day, and Reconciliation Week. The department also celebrated its second International Day Against Homophobia, Biphobia, Transphobia and Intersexism (IDAHOBIT) with a presentation to staff by Liz Prendergast, a member of the Parents, Families and Friends of Lesbians and Gays (PFLAG) network. The department is committed to supporting each other by recognising and celebrating diversity in our community.

Students bring fresh knowledge and skills

We recognise and seek to use the skills and fresh ideas of university students through student placements.

In 2018, five students from Edith Cowan University made valuable contributions to the Science and Planning and Native Vegetation teams during their work integrated learning placement with us. The students were each placed for a three-month project to complete as part of their final year of studies. The projects were designed to meet real needs and students were matched to the projects that best suited their interests. The host branches provided leadership and mentoring so that all students benefited from a customised work placement experience.

Two students were placed with Water Allocation Planning and one went on to secure ongoing employment with us.

'Continuous mentorship and encouragement from the Water Allocation Planning team ensured my time at DWER was a wonderful learning experience.'— Joanne, 2018

Feature

Tina takes the lead in water licensing support

Tina Taraborrelli has managed our Water Licensing Business Support Unit since it was established in 2015. The unit started as a call centre to help water licence applicants and project developers to use our e-business system, Water Online.

Today, the unit continues to manage applications to Water Online, but also handles queries from clients about water licence processes and advises on multiple applications handled together through our 'one-stop-shop' webpage, resolving applications more quickly. In addition to managing water licensing fees for the mining and public water supply sectors, the unit plays a role in validating new applications and doing quick assessments of low-risk, low-volume licences, sending the more complex applications on for fuller assessment. This fast-track approach is an excellent example of supporting our clients — reducing time, money and effort.

Tina is a communicator who can speak to the diverse range of water licence holders who require assistance – from small vegie growers through to major consulting companies working for BHP or Rio Tinto. She has 16 years' experience in licence assessment coupled with an extensive understanding of our legislative responsibilities and our water licensing support systems.

Tina's drive to collaborate and to try new ways of working have been integral to the success of the unit. She and her team of six aim to find the answers to client problems or get back to them with information and advice that will make their understanding and application easier.

Outside of work, Tina is member of the Army Reserves and volunteers to assist homeless people and kids in need. Tina is a great example of where personal values and our department's values align.

Jump to the www.

Achieving state government outcomes

03
Significant issues impacting the agency

In 2018–19, we continued to develop and deliver on the government's priority to create a 'one-stop-shop' for industry and developers by integrating and streamlining Western Australia's water and environmental regulation. The creation of the new Regulatory Capability Division is driving the identification of regulatory innovation and integration initiatives for our regulatory reform program. This division will also be responsible for implementing the Environment Online initiative to consolidate upon the existing Water Online portal, creating a streamlined application, assessment and approvals process for both applicants and the department.

We obtained an improved cost recovery model for environmental regulation services, the additional revenue from which will be reinvested in the department to improve service delivery and efficiency in these services. The revenue will be used to employ additional staff in environmental regulation and compliance functions, and to invest in new systems including Environment Online. This investment will improve the timeliness of decision making on environmental assessments and ensure an appropriate response to the increasing demand for environmental assessments and approvals relating to economic growth. The model will also better reflect the true cost of the department's environmental regulation for industry.

We introduced fees for assessing water licences and permit applications in the mining and public water supply scheme sectors. These will support effective regulation and sustainable management of the state's water resources. Reinvested revenue will be directed towards customer-centred service delivery and improved online systems.

From 1 July 2018, we implemented the government's ban on the supply of lightweight plastic bags in Western Australia to reduce the impacts of plastic waste on the environment. The department and its implementation partners have engaged with retailers and the community to raise awareness and support the introduction of the ban, including managing the potential impacts of the ban on consumers and businesses.

The government will introduce a new container deposit scheme, called Containers for Change, on 2 June 2020 to reduce litter, increase recycling rates and support social enterprises, charities and community organisations. Over 97 per cent of people who responded to our online survey support a container deposit scheme for Western Australia. The scheme is expected to generate 500 direct jobs and over 20 years, recycle an extra 6.6 billion containers, 5.9 billion of which would have gone to landfill and 706 million of which would have been littered. A coordinator has been announced for the scheme.

We continue to promote water sensitive urban design principles and advocate a waterwise approach to urban development. We will work with major developers and government agencies to ensure that major projects, such as the government's METRONET project, embrace waterwise design elements.

We are supporting the Environmental Protection Authority (EPA) to help tackle the high active assessment workload, which includes formal assessments of new proposals and schemes, changes to Ministerial-approved proposals and conditions, and approval of management plans required under Ministerial Statements. The trend in the high overall assessment workload continues from 140 in 2015–16 to 241 in 2018–19.

Additional resources are being used to carry out environmental assessments of significant proposals such as mining, oil and gas, infrastructure, processing plants and irrigated agriculture. The additional resources will help ensure projects are not delayed through the assessment process, enabling them to move into construction, development and production phases as quickly as possible.

As well as an increase in the volume of proposals, there has also been an increase in the complexity and variety of the projects coming to the EPA, which reflects the current diversity and innovation in the Western Australian economy. To future-proof the EPA from busy periods, we will be developing in 2019–20 an environmental accreditation scheme to enable environmental consultants to conduct assessments to agreed standards. This is an important measure employed by the government to provide industry with the certainty and timeliness it needs to deliver jobs and economic growth in Western Australia.

Groundwater makes up about 70 per cent of Perth's water supply; half of the scheme supply and almost all the self-supply water used for parks, sporting grounds, horticulture, large gardens and around one in four backyard gardens. As a result of climate change, the south-west of Western Australia is experiencing declining annual rainfall. To ensure the sustainable use of groundwater resources in Perth, and to provide long-term supply, amenity and environmental benefits for the community, we are developing a new Gnangara water allocation plan. In parallel, the department is collaborating with local governments and other partners to investigate and identify longer term water supply strategies for local areas across the Perth and Peel region.

We will continue work to implement actions to reverse serious impacts in the Peel-Harvey and Leschenault estuaries, improve outcomes from offsets through the Pilbara Environmental Offsets Fund, and address the cumulative impacts of clearing.

We began work on a water allocation plan for the Fitzroy River to help in achieving objectives for the Fitzroy River contained in the government's plan for the Kimberley.

Administering our legal compliance and finances

04 Disclosures and legal compliance

Auditor General
independent auditor's report

Auditor General

INDEPENDENT AUDITOR'S REPORT

To the Parliament of Western Australia

DEPARTMENT OF WATER AND ENVIRONMENTAL REGULATION

Report on the Financial Statements

Opinion
I have audited the financial statements of the Department of Water and Environmental Regulation which comprise the Statement of Financial Position as at 30 June 2019, the Statement of Comprehensive Income, Statement of Changes in Equity, Statement of Cash Flows, and Summary of Consolidated Account Appropriations and Income Estimates for the year then ended, and Notes comprising a summary of significant accounting policies and other explanatory information, including Administered transactions and balances.

In my opinion, the financial statements are based on proper accounts and present fairly, in all material respects, the operating results and cash flows of the Department of Water and Environmental Regulation for the year ended 30 June 2019 and the financial position at the end of that period. They are in accordance with Australian Accounting Standards, the *Financial Management Act 2006* and the Treasurer's Instructions.

Basis for Opinion
I conducted my audit in accordance with the Australian Auditing Standards. My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of my report. I am independent of the Department in accordance with the *Auditor General Act 2006* and the relevant ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants* (the Code) that are relevant to my audit of the financial statements. I have also fulfilled my other ethical responsibilities in accordance with the Code. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Responsibility of the Director General for the Financial Statements
The Director General is responsible for keeping proper accounts, and the preparation and fair presentation of the financial statements in accordance with Australian Accounting Standards, the *Financial Management Act 2006* and the Treasurer's Instructions, and for such internal control as the Director General determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Director General is responsible for assessing the agency's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Western Australian Government has made policy or funding decisions affecting the continued existence of the Department.

Auditor's Responsibility for the Audit of the Financial Statements
As required by the *Auditor General Act 2006*, my responsibility is to express an opinion on the financial statements. The objectives of my audit are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

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

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

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

Report on Controls

Opinion
I have undertaken a reasonable assurance engagement on the design and implementation of controls exercised by the Department of Water and Environmental Regulation. The controls exercised by the Department are those policies and procedures established by the Director General to ensure that the receipt, expenditure and investment of money, the acquisition and disposal of property, and the incurring of liabilities have been in accordance with legislative provisions (the overall control objectives).

My opinion has been formed on the basis of the matters outlined in this report.

In my opinion, in all material respects, the controls exercised by the Department of Water and Environmental Regulation are sufficiently adequate to provide reasonable assurance that the receipt, expenditure and investment of money, the acquisition and disposal of property and the incurring of liabilities have been in accordance with legislative provisions during the year ended 30 June 2019.

The Director General's Responsibilities
The Director General is responsible for designing, implementing and maintaining controls to ensure that the receipt, expenditure and investment of money, the acquisition and disposal of property, and the incurring of liabilities are in accordance with the *Financial Management Act 2006*, the Treasurer's Instructions and other relevant written law.

Auditor General's Responsibilities
As required by the *Auditor General Act 2006*, my responsibility as an assurance practitioner is to express an opinion on the suitability of the design of the controls to achieve the overall control objectives and the implementation of the controls as designed. I conducted my engagement in accordance with Standard on Assurance Engagements ASAE 3150 *Assurance Engagements on Controls* issued by the Australian Auditing and Assurance Standards Board. That standard requires that I comply with relevant ethical requirements and plan and perform my procedures to obtain reasonable assurance about whether, in all material respects, the controls are suitably designed to achieve the overall control objectives and the controls, necessary to achieve the overall control objectives, were implemented as designed.

An assurance engagement to report on the design and implementation of controls involves performing procedures to obtain evidence about the suitability of the design of controls to achieve the overall control objectives and the implementation of those controls. The procedures selected depend on my judgement, including the assessment of the risks that controls are not suitably designed or implemented as designed. My procedures included testing the implementation of those controls that I consider necessary to achieve the overall control objectives.

I believe that the evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Limitations of Controls
Because of the inherent limitations of any internal control structure it is possible that, even if the controls are suitably designed and implemented as designed, once the controls are in operation, the overall control objectives may not be achieved so that fraud, error, or noncompliance with laws and regulations may occur and not be detected. Any projection of the outcome of the evaluation of the suitability of the design of controls to future periods is subject to the risk that the controls may become unsuitable because of changes in conditions.

Report on the Key Performance Indicators

Opinion
I have undertaken a reasonable assurance engagement on the key performance indicators of the Department of Water and Environmental Regulation for the year ended 30 June 2019. The key performance indicators are the key effectiveness indicators and the key efficiency indicators that provide performance information about achieving outcomes and delivering services.

In my opinion, in all material respects, the key performance indicators of the Department of Water and Environmental Regulation are relevant and appropriate to assist users to assess the Department's performance and fairly represent indicated performance for the year ended 30 June 2019.

The Director General's Responsibility for the Key Performance Indicators
The Director General is responsible for the preparation and fair presentation of the key performance indicators in accordance with the *Financial Management Act 2006* and the Treasurer's Instructions and for such internal control as the Director General determines necessary to enable the preparation of key performance indicators that are free from material misstatement, whether due to fraud or error.

In preparing the key performance indicators, the Director General is responsible for identifying key performance indicators that are relevant and appropriate having regard to their purpose in accordance with Treasurer's Instruction 904 *Key Performance Indicators*.

Auditor General's Responsibility
As required by the *Auditor General Act 2006*, my responsibility as an assurance practitioner is to express an opinion on the key performance indicators. The objectives of my engagement are to obtain reasonable assurance about whether the key performance indicators are relevant and appropriate to assist users to assess the agency's performance and whether the key performance indicators are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. I conducted my engagement in accordance with Standard on Assurance Engagements ASAE 3000 *Assurance Engagements Other than Audits or Reviews of Historical Financial Information* issued by the Australian Auditing and Assurance Standards Board. That standard requires that I comply with relevant ethical requirements relating to assurance engagements.

An assurance engagement involves performing procedures to obtain evidence about the amounts and disclosures in the key performance indicators. It also involves evaluating the relevance and appropriateness of the key performance indicators against the criteria and guidance in Treasurer's Instruction 904 for measuring the extent of outcome achievement and the efficiency of service delivery. The procedures selected depend on my judgement, including the assessment of the risks of material misstatement of the key performance indicators. In making these risk assessments I obtain an understanding of internal control relevant to the engagement in order to design procedures that are appropriate in the circumstances.

I believe that the evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

My Independence and Quality Control Relating to the Reports on Controls and Key Performance Indicators
I have complied with the independence requirements of the *Auditor General Act 2006* and the relevant ethical requirements relating to assurance engagements. In accordance with ASQC 1 *Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information, and Other Assurance Engagements*, the Office of the Auditor General maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Matters Relating to the Electronic Publication of the Audited Financial Statements and Key Performance Indicators
This auditor's report relates to the financial statements and key performance indicators of the Department of Water and Environmental Regulation for the year ended 30 June 2019 included on the Department's website. The Department's management is responsible for the integrity of the Department's website. This audit does not provide assurance on the integrity of the Department's website. The auditor's report refers only to the financial statements and key performance indicators described above. It does not provide an opinion on any other information which may have been hyperlinked to/from these financial statements or key performance indicators. If users of the financial statements and key performance indicators are concerned with the inherent risks arising from publication on a website, they are advised to refer to the hard copy of the audited financial statements and key performance indicators to confirm the information contained in this website version of the financial statements and key performance indicators.

CAROLINE SPENCER
AUDITOR GENERAL
FOR WESTERN AUSTRALIA
Perth, Western Australia
18 September 2019

Page 4 of 4

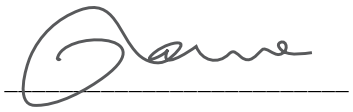
Certification of financial statements

For the year ended 30 June 2019

The accompanying financial statements of the Department of Water and Environmental Regulation have been prepared in compliance with the provisions of the *Financial Management Act 2006* from proper accounts and records to present fairly the financial transactions for the reporting period ended 30 June 2019 and the financial position as at 30 June 2019.

At the date of signing, we are not aware of any circumstances which would render any particulars included in the financial statements misleading or inaccurate.

Wayne Millen
Chief Finance Officer
Date: 18 September 2019



Mike Rowe
Director General
Date: 18 September 2019

Contents of financial statements

Statement of comprehensive income

For the year ended 30 June 2019

	Notes	2019 $'000	2018 $'000
Cost of services			
Expenses			
Employee benefits expense	2.1(a)	92 288	97 876
Supplies and services	2.3	35 489	31 689
Depreciation and amortisation expense	4.1.1, 4.2.1	11 703	10 380
Accommodation expense	2.3	8 392	9 695
Grants and subsidies	2.2	15 160	18 463
Other expenses	2.3	3 216	4 724
Loss on disposal of non-current assets	2.4	4 664	580
Total cost of services		170 912	173 407
Income			
Revenue			
User charges and fees	3.2	28 854	25 029
Commonwealth grants and contributions	3.3	2 800	2 467
Waste Levy	3.4	77 586	75 509
Interest revenue		899	735
Other revenue	3.5	4 570	17 244
Total revenue		114 709	120 984
Total income other than income from state government		114 709	120 984
Net cost services		56 203	52 423
Income from state government			
Service appropriation	3.1	83 012	92 892
State grants	3.1	2 062	3 835
Resources received free of charge	3.1	2 629	1 709
Royalties for Regions fund	3.1	9 220	8 287
Total income from state government		96 923	106 723
Surplus for the period		40 720	54 300
Other comprehensive income			
Items not reclassified subsequently to profit or loss			
Changes in asset revaluation surplus	8.11	12 835	1 305
Total other comprehensive income		12 835	1 305
Total comprehensive income for the period		53 555	55 605

The *Statement of comprehensive income* should be read in conjunction with the accompanying notes.

Statement of financial position

For the year ended 30 June 2019

	Notes	2019 $'000	2018 $'000
Assets			
Current assets			
Cash and cash equivalents	6.1	11 958	5 512
Restricted cash and cash equivalents	6.1	65 105	63 985
Receivables	5.1	22 748	30 457
Amounts receivable for services	5.2	5 994	6 307
Other current assets	5.3	2 063	1 598
Total current assets		**107 868**	107 859
Non-current assets			
Restricted cash and cash equivalents	6.1	1 019	633
Amounts receivable for services	5.2	40 637	30 965
Infrastructure, property, plant and equipment	4.1	347 936	337 523
Intangibles	4.2	20 379	24 866
Total non-current assets		**409 971**	393 987
Total assets		**517 839**	501 846

	Notes	2019 $'000	2018 $'000
Liabilities			
Current liabilities			
Payables	5.4	8 585	7 559
Employee-related provisions	2.1(b)	20 354	19 836
Other current liabilities	5.5	520	354
Total current liabilities		**29 459**	27 749
Non-current liabilities			
Employee-related provisions	2.1(b)	5 275	5 073
Payables	5.4	-	1 658
Total non-current liabilities		**5 275**	6 731
Total liabilities		**34 734**	34 480
Net assets		**483 105**	**467 366**
Equity			
Contributed equity	8.11	373 945	411 761
Reserves	8.11	14 140	1 305
Accumulated surplus		95 020	54 300
Total equity		**483 105**	**467 366**

The *Statement of financial position* should be read in conjunction with the accompanying notes.

Statement of changes in equity

For the year ended 30 June 2019

	Notes	Contributed equity $'000	Reserves $'000	Accumulated surplus $'000	Total equity $'000
Balance at 1 July 2017		-	-	-	-
Surplus		-	-	54 300	54 300
Other comprehensive income	8.11	-	1 305	-	1 305
Total comprehensive income for the period		-	**1 305**	**54 300**	**55 605**
Transactions with owners in their capacity as owners:					
Capital appropriations	8.11	10 264	-	-	10 264
Net assets transferred from the former agencies	8.11(a)	465 227	-	-	465 227
Distribution to owners	8.11	(63 730)	-	-	(63 730)
Total		**411 761**	-	-	**411 761**
Balance at 30 June 2018		**411 761**	**1 305**	**54 300**	**467 366**
Balance at 1 July 2018		**411 761**	**1 305**	**54 300**	**467 366**
Surplus		-	-	40 720	40 720
Other comprehensive income	8.11	-	12 835	-	12 835
Total comprehensive income for the period		-	**12 835**	**40 720**	**53 555**
Transactions with owners in their capacity as owners:					
Capital appropriations	8.11	4 654	-	-	4 654
Distribution to owners	8.11	(41 333)	-	-	(41 333)
Transfers to other agencies	8.11	(1 137)	-	-	(1 137)
Total		**(37 816)**	**-**	**-**	**(37 816)**
Balance at 30 June 2019		**373 945**	**14 140**	**95 020**	**483 105**

The *Statement of changes in equity* should be read in conjunction with the accompanying notes.

Statement of cash flows

For the year ended 30 June 2019

	Note	2019 $'000	2018 $'000
Cash flows from state government			
Service appropriation		67 346	77 120
Cash transferred from the former agencies	8.11(a)	-	88 529
Capital contributions		4 654	10 264
Holding account drawdown		6 307	7 354
Distributions to owner		(41 056)	(63 443)
Net proceeds on sale of land remitted to consolidated account		(277)	(287)
Royalties for Regions fund		9 220	8 287
State grants		1 551	3 835
Net cash provided by state government		**47 745**	131 659

Utilised as follows:	Note	2019 $'000	2018 $'000
Cash flows from operating activities			
Payments			
Employee benefits		(91 352)	(99 214)
Supplies and services		(31 184)	(28 039)
Accommodation		(8 269)	(9 699)
Grants and subsidies		(17 107)	(11 688)
GST payments on purchases		(6 664)	(8 601)
Other payments		(2 391)	(3 986)
Receipts			
User charges and fees		28 896	24 675
Commonwealth grants and contributions		1 121	2 302
Interest received		919	530
Waste Levy		77 571	73 971
GST receipts on sales		295	909
GST receipts from taxation authority		5 838	6 451
Other receipts		3 712	6 282
Recovery of Waste Levy		10 000	-
Net cash used in operating activities		**(28 615)**	(46 107)
Cash flows from investing activities			
Payments			
Purchase of non-current assets		(11 469)	(15 742)
Receipts			
Receipts from sale of non-current physical assets		291	320
Net cash used in investing activities		**(11 178)**	(15 422)
Net increase in cash and cash equivalents		7 952	70 130
Cash and cash equivalents at the beginning of the period		70 130	-
Cash and cash equivalents at the end of period	6.1	**78 082**	**70 130**

The *Statement of cash flows* should be read in conjunction with the accompanying notes.

Summary of consolidated account appropriations and income estimates

For the year ended 30 June 2019

	2019 Estimate $'000	2019 Actual $'000	Variance $'000	2019 Actual $'000	2018 Actual $'000	Variance $'000
Delivery of services						
Item 106 Net amount appropriated to deliver services	82 407	82 610	203	82 610	92 490	(9 880)
Amount authorised by other statues						
- Salaries and Allowances Act 1975	402	402	-	402	402	-
Total appropriations provided to deliver services	82 809	83 012	203	83 012	92 892	(9 880)
Capital						
Item 124 capital appropriation	4 654	4 654	-	4 654	10 264	(5 610)
Grand total	87 463	87 666	203	87 666	**103 156**	(15 490)

	2019 Estimate $'000	2019 Actual $'000	Variance $'000	2019 Actual $'000	2018 Actual $'000	Variance $'000
Details of expenses by service						
Water information and advice	36 562	35 865	(697)	35 865	41 646	(5 781)
Water planning, allocation and optimisation	32 011	34 706	2 695	34 706	40 027	(5 321)
Water regulation, licensing and industry governance	18 593	18 623	30	18 623	17 419	1 204
Environmental regulation	38 496	35 904	(2 592)	35 904	36 685	(781)
Environment policy	5 405	6 306	901	6 306	4 608	1 698
Waste strategies	23 983	25 756	1 773	25 756	19 922	5 834
Environmental impact assessment services to the Environmental Protection Authority (EPA)	9 440	9 660	220	9 660	8 878	782
Environmental management services to the EPA	3 958	2 189	(1 769)	2 189	3 138	(949)
Compliance monitoring services to the Minister for Environment	2 112	1 903	(209)	1 903	1 084	819
Total cost of services	170 560	**170 912**	352	**170 912**	173 407	**(2 495)**
Less total income	(124 786)	**(114 709)**	10 077	(114 709)	(120 984)	6 275
Net cost of services	45 774	**56 203**	10 429	**56 203**	52 423	**3 780**
Adjustments	37 035	26 809	(10 226)	26 809	40 469	(13 660)
Total appropriations provided to deliver services	**82 809**	83 012	**203**	83 012	**92 892**	**(9 880)**
Capital expenditure						
Purchase of non-current physical assets	(14 516)	**(11 469)**	3 047	**(11 469)**	(15 742)	4 273
Adjustments for other funding sources	19 170	16 123	(3 047)	16 123	26 006	(9 883)
Capital contribution (appropriation)	4 654	4 654	-	4 654	**10 264**	(5 610)
Details of income estimates						
Income disclosed as administered income	1 778	102	(1 676)	102	100	2
	1 778	102	(1 676)	102	100	2

Adjustments comprise movements in cash balances and other accrual items such as receivables payables and superannuation.

Note 9.1 *Disclosure of administered income and expenses* and Note 9.2 *Explanatory statement for administered items* provide details of any significant variations between estimates and actual results for 2019 and between the actual results for 2019 and 2018.

Notes to the financial statements

For the year ended 30 June 2019

1. Basis of preparation

The Department of Water and Environmental Regulation is a WA Government entity and is controlled by the state of Western Australia which is the ultimate parent. The agency is a not-for-profit entity (as profit is not its principal objective). A description of the nature of its operations and its principal activities have been included in the Overview which does not form part of these financial statements.

These annual financial statements were authorised for issue by the accountable authority of the agency on 18 September 2019.

(a) Statement of compliance

These general purpose financial statements are prepared in accordance with:

1) The *Financial Management Act 2006* (FMA)
2) The Treasurer's Instructions (TIs)
3) Australian Accounting Standards (AASs) – Reduced Disclosure Requirements
4) Where appropriate, those AAS paragraphs applicable for not-for-profit entities have been applied.

The *Financial Management Act 2006* and the Treasurer's Instructions take precedence over AASs. Several AASs are modified by TIs to vary application, disclosure format and wording. Where modification is required and has had a material or significant financial effect upon the reported results, details of that modification and the resulting financial effect are disclosed in the notes to the financial statements.

(b) Basis of preparation

These financial statements are presented in Australian dollars applying the accrual basis of accounting and using the historical cost convention. Certain balances will apply a different measurement basis (such as the fair value basis). Where this is the case, the different measurement basis is disclosed in the associated note. All values are rounded to the nearest thousand dollars ($'000).

(c) Judgements and estimates

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

(d) Contributed equity

AASB Interpretation 1038 *Contributions by owners made to wholly-owned public sector entities* requires transfers in the nature of equity contributions, other than as a result of a restructure of administrative arrangements, to be designated by the government (the owner) as contributions by owners (at the time of, or prior to, transfer) before such transfers can be recognised as equity contributions.

Capital appropriations have been designated as contributions by owners by TI 955 *Contributions by owners made to wholly-owned public sector entities* and have been credited directly to contributed equity. The transfers of net assets to/from other agencies, other than as a result of a restructure of administrative arrangements, are designated as contributions by owners where the transfers are non-discretionary and non-reciprocal.

(e) Comparative figures

Comparative figures are, where appropriate, reclassified to be comparable with the figures presented in the current reporting period.

2. Use of our funding

Expenses incurred in the delivery of services

This section provides additional information about how the department's funding is applied and the accounting policies that are relevant for an understanding of the items recognised in the financial statements. The primary expenses incurred by the department in achieving its objectives and the relevant notes are:

	Notes	2019 $'000	2018 $'000
Employee benefits expense	2.1(a)	92 288	97 876
Employee related provisions	2.1(b)	25 629	24 909
Grants and subsidies	2.2	15 160	18 463
Other expenditure	2.3	47 097	46 108
Loss on disposal of non-current assets	2.4	4 664	580

2.1 (a) Employee benefits expense

	2019 $'000	2018 $'000
Wages and salaries	82 097	81 148
Termination benefits	-	6 799
Superannuation – defined contribution plans[(a)]	7 788	8 101
Other employee benefits expenses	2 403	1 828
Total employee benefits expenses	**92 288**	**97 876**

(a) Defined contribution plans include West State Superannuation Scheme (WSS), Gold State Superannuation Scheme (GSS), Government Employees Superannuation Board Schemes (GESBs) and other eligible funds.

▶ Wages and salaries

Employee expenses include all costs related to employment including wages and salaries, fringe benefits tax and leave entitlements.

▶ Termination benefits

Payable when employment is terminated before normal retirement date, or when an employee accepts an offer of benefits in exchange for the termination of employment. Termination benefits are recognised when the department is demonstrably committed to terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal or providing termination benefits as a result of an offer made to encourage voluntary redundancy. Benefits falling due more than 12 months after the end of the reporting period are discounted to present value.

► Superannuation

The amount recognised in profit or loss of the *Statement of comprehensive income* comprises employer contributions paid to the GSS (concurrent contributions), the WSS, the GESBs or other superannuation funds. The employer contribution paid to the Government Employees Superannuation Board (GESB) in respect of the GSS is paid back into the Consolidated Account by the GESB.

GSS (concurrent contributions) is a defined benefit scheme for the purposes of employees and whole-of-government reporting. It is however a defined contribution plan for department purposes because the concurrent contributions (defined contributions) made by the department to GESB extinguishes the department's obligations to the related superannuation liability.

The department does not recognise any defined benefit liabilities because it has no legal or constructive obligation to pay future benefits relating to its employees. The liabilities for the unfunded pension scheme and the unfunded GSS transfer benefits attributable to members who transferred from the pension scheme, are assumed by the Treasurer. All other GSS obligations are funded by concurrent contributions made by the department to GESB.

GESB and other fund providers administer public sector superannuation arrangements in Western Australia in accordance with legislative requirements. Eligibility criteria for membership in particular schemes for public sector employees vary according to commencement and implementation dates.

2.1 (b) Employee-related provisions

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

	2019 $'000	2018 $'000
Current		
Employee benefits provisions		
Annual leave[a]	7 993	7 080
Long service leave[b]	11 696	12 191
Purchased annual leave	410	370
Deferred salary scheme[c]	75	19
	20 174	19 660
Other provisions		
Employment on-costs[d]	180	176
Total current employee-related provisions	**20 354**	19 836
Non-current		
Employee benefits provision		
Long service leave[b]	5 228	5 027
Other provisions		
Employment on-costs[d]	47	46
Total non-current employee-related provisions	**5 275**	5 073
Total employee-related provisions	**25 629**	**24 909**

(a) Annual leave liabilities

Classified as current as there is no unconditional right to defer settlement for at least 12 months after the end of the reporting period.

The provision for annual leave is calculated at the present value of expected payments to be made in relation to services provided by employees up to reporting date.

(b) Long service leave liabilities

Unconditional long service leave provisions are classified as current liabilities as the department does not have an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

Pre-conditional and conditional long service leave provisions are classified as non-current liabilities because the department has an unconditional right to defer the settlement of the liability until the employee has completed the requisite years of service.

The provision for long service leave liabilities are calculated at present value as the department does not expect to wholly settle the amounts within 12 months. The present value is measured taking into account the present value of expected future payments to be made in relation to services provided by employees up to the reporting date. These payments are estimated using the remuneration rate expected to apply at the time of settlement and discounted using market yields at the end of the reporting period on national government bonds with terms to maturity that match, as closely as possible, the estimated future cash outflows.

(c) Deferred salary scheme liabilities

Classified as current where there is no unconditional right to defer settlement for at least 12 months after the end of the reporting period.

(d) Employment on-costs

The settlement of annual and long service leave liabilities gives rise to the payment of employment on-costs including workers' compensation insurance. The provision is the present value of expected future payments.

Employment on-costs, including workers' compensation insurance, are not employee benefits and are recognised separately as liabilities and expenses when the employment to which they relate has occurred. Employment on-costs are included as part of 'other expenses, Note 2.3 (apart from the unwinding of the discount (finance cost))' and are not included as part of the department's 'employee benefits expense'. The related liability is included in 'Employment on-costs provision'.

	2019 $'000	2018 $'000
Employment on-costs provision		
Transferred in from the former agencies/carrying amount at start of period	222	222
Additional/(reversals of) provisions recognised	11	176
Payments/other sacrifices of economic benefits	(6)	(176)
Carrying amount at end of period	**227**	222

► **Key sources of estimation uncertainty – long service leave**

Key estimates and assumptions concerning the future are based on historical experience and various other factors that have a significant risk of causing a material adjustment to the carrying amount of assets and liabilities within the next financial year.

Several estimates and assumptions are used in calculating the department's long service leave provision. These include:

- expected future salary rates
- discount rates
- employee retention rates
- expected future payments

Changes in these estimations and assumptions may impact on the carrying amount of the long service leave provision.

Any gain or loss following revaluation of the present value of long service leave liabilities is recognised as employee benefits expense.

2.2 Grants and subsidies

	Notes	2019 $'000	2018 $'000
Recurrent			
Contaminated sites management account grants		1 593	383
Grants other		659	413
Rural Water grants	5.4(c)	27	4 474
Statewide water efficiency measures		180	259
Water Sensitive Cities – Cooperative Research Centre		160	150
Waste avoidance and resource recovery account (WARR)	3.4	9 029	5 128
Water innovation partnership		184	230
Watering WA[(a)]		1 775	1 860
National partnership payments[(b)]		1 553	2 337
Capital			
The establishing and maintaining vegetation offsets account[(c)]		-	3 229
Total grants and subsidies		**15 160**	**18 463**

► **(a) Watering WA**

Grants issued in partnership with regional local councils to deliver alternative water supply projects through stormwater harvesting, wastewater re-use, refurbishment of agricultural area dams and town dams.

(b) National partnership payments

Western Australia has entered into arrangements with the state and Commonwealth governments in May 2017 for funding of approximately $6.286 million to be provided for the assessment and development of water infrastructure through the National Water Infrastructure Development Fund. The department currently manages the fund which was established to facilitate detailed planning to build or augment existing water infrastructure such as dams, pipelines and managed aquifer recharge.

The amended bilateral schedule negotiated with the Commonwealth in June 2018 indicated the program was to conclude in 2018–19. There is no indication of any further variation or amendment to the bilateral schedule affecting 2019–20.

(c) The establishing and maintaining vegetation offsets account

The establishing and maintaining native vegetation offsets account (offsets account) was established for the purpose of establishing or maintaining native vegetation (offset) as a condition of a permit to clear native vegetation, under the *Environmental Protection Act 1986*. The department may require an offset to counterbalance residual significant environmental impacts expected from clearing authorised under a clearing permit.

- The requirement for an offset counter balances the loss of native vegetation as a condition of a native vegetation clearing permit, after steps have been taken to avoid, minimise and mitigate the impacts of clearing.
- The offset fund established under the *Environmental Protection Act 1986* allows for a more strategic approach to offsets. Land purchased or revegetation undertaken using contributions made to the offsets fund are published on the Environmental Offsets Register website.
- The Department of Water and Environmental Regulation liaises with the Department of Biodiversity, Conservation and Attractions to identify and acquire appropriate areas of native vegetation for addition to the conservation estate.

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

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

Grants and other transfers to third parties (other than contribution to owners) are recognised as an expense in the reporting period in which they are paid or payable. They include transactions such as: grants, subsidies, personal benefit payments made in cash to individuals, other transfer payments made to public sector agencies, local government, non-government schools, and community groups.

2.3 Other expenditure

	2019 $'000	2018 $'000
Supplies and services		
Communications	1 037	1 235
Consultants and contractors	24 265	21 028
Consumables	200	140
Materials	131	235
Travel	1 023	1 037
Vehicle lease and hire	1 748	1 942
Minor plant, machinery and equipment	2 901	2 314
Plant, machinery and equipment lease	469	481
Chemical analysis expense	1 325	1 326
Other suppliers and services	2 390	1 951
Total supplies and services expenses	**35 489**	31 689
Accommodation expenses		
Lease rentals	6 121	7 558
Power and water consumption	780	824
Rates and taxes	400	416
Security	95	82
Repairs and maintenance	601	366
Cleaning	395	449
Total accommodation expenses	**8 392**	9 695

	2019 $'000	2018 $'000
Other expenses		
Audit fees	281	171
Equipment repairs and maintenance	1 029	1 114
Bad and doubtful debts expense	-	53
Expected credit losses expense [a]	159	-
Transfer of Water For Food funding [b]	15	2 007
Employment on-costs	317	372
Revaluation decrement on land and buildings	410	724
Impairment losses on plant and equipment	69	-
Other operating expenses	936	283
Total other expenses	**3 216**	4 724
Total other expenditures	**47 097**	**46 108**

(a) Expected credit losses were not measured in 2017–18.

(b) Transfer of remaining funding to the Department of Primary Industries and Regional Development relating to the Water For Food project.

► Supplies and services

Supplies and services are recognised as an expense in the reporting period in which they are incurred. The carrying amounts of any materials held for distribution are expensed when the materials are distributed.

- **Accommodation expenses**

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

  Repairs, maintenance and cleaning costs are recognised as expenses as incurred.

- **Other expenses**

  Other expenses generally represent the day-to-day running costs incurred in normal operations.

- **Equipment repairs and maintenance**

  Repairs and maintenance costs are recognised as expenses as incurred, except where they relate to the replacement of a significant component of an asset. In that case, the costs are capitalised and depreciated.

- **Doubtful debts expense**

  Doubtful debts expense was recognised as the movement in the allowance for doubtful debts. From 2018–19, expected credit losses expense is recognised as the movement in the allowance for expected credit losses. The allowance for expected credit losses of trade receivables is measured at the lifetime expected credit losses at each reporting date. The department has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

- **Employment on-cost**

  Employment on-cost includes workers' compensation insurance and other employment on-costs. The on-costs liability associated with the recognition of annual and long service leave liabilities is included at Note 2.1(b) Employee-related provisions. Superannuation contributions accrued as part of the provision for leave are employee benefits and are not included in employment on-costs.

2.4 Loss on disposal of non-current assets

	2019 $'000	2018 $'000
Proceeds from disposal of non-current assets		
Land	277	289
Plant, equipment and vehicles	-	20
Measurement sites	-	-
Carrying amount of non-current assets disposed		
Land	(320)	(767)
Buildings	-	(122)
Measurement sites	(4 621)	-
Loss	**(4 664)**	**(580)**

► Realised and unrealised gains

Realised and unrealised gains are usually recognised on a net basis. These include gains arising on the disposal of non-current assets and some revaluations of non-current assets.

Gains and losses on the disposal of non-current assets are presented by deducting from the proceeds on disposal the carrying amount of the asset and related selling expenses. Gains and losses are recognised in profit or loss in the statement of comprehensive income (from the proceeds of sale).

3. Our funding sources

How we obtain our funding

This section provides additional information about how the department obtains its funding and the relevant accounting policy notes that govern the recognition and measurement of this funding. The primary income received by the department and the relevant notes are:

	Notes	2019 $'000	2018 $'000
Income from state government	3.1	96 923	106 723
User charges and fees	3.2	28 854	25 029
Commonwealth grants and contributions	3.3	2 800	2 467
Waste levy	3.4	77 586	75 509
Other revenue	3.5	4 570	17 244

3.1 Income from state government

	2019 $'000	2018 $'000
Appropriation received during the period:		
Service appropriation[a]	83 012	92 892
	83 012	92 892
State grants [b]		
Department of Communities (Housing)	-	177
Department of Biodiversity Conservation and Attractions	1 887	1 647
Fremantle Port Authority	24	24
Main Roads WA	120	35
Department of Primary Industries and Regional Development	-	1 530
Office of Emergency Management	17	94
Water Corporation	14	14
Department of Jobs, Tourism, Science and Innovation	-	197
Department of Mines, Industry Regulation and Safety	-	117
Total state grants	2 062	3 835

3.1 Income from state government (continued)

	2019 $'000	2018 $'000
Services received free of charge from other state government agencies during the period:		
Department of Finance – Accommodation lease	97	113
Department of Health – Water source and quality management	80	-
Department of Planning, Lands and Heritage – Corporate services	-	21
Department of Primary Industries and Regional Development – Spatial data	13	10
Department of Transport – Environmental assessment	50	-
Landgate – Land information services	861	746
Main Roads WA – Clearing permit assessment	230	138
State Solicitor's Office – Legal services	1 298	681
Total services received	2 629	1 709
Royalties for Regions fund		
Regional Infrastructure and Headworks Account[(c)]	9 163	8 210
Regional Community Services Account[(c)]	57	77
Total Royalties for Regions fund	9 220	8 287
Total income from state government	96 923	106 723

▶ (a) Service appropriation

Service appropriations are recognised as revenue at fair value in the period in which the department gains control of the appropriated funds. The department gains control of appropriated funds at the time those funds are deposited in the bank account or credited to the 'Amounts receivable for services' (holding account) held at Treasury.

Service appropriations fund the net cost of services delivered. Appropriation revenue comprises the following:

- cash component
- a receivable (asset).

The receivable (holding account – note 5.2) comprises the following:

- the budgeted depreciation expense for the year
- any agreed increase in leave liabilities during the year.

▶ (b) State grants

State grants are recognised as revenue at fair value in the period in which the department obtains control over the funds.

▶ (c) The Regional Infrastructure and Headworks Account and Regional Community Services Accounts

The Regional Infrastructure and Headworks Account and Regional Community Services Accounts are sub-funds within the over-arching Royalties for Regions fund. The recurrent funds are committed to projects and programs in WA regional areas and are recognised as revenue when the department gains control on receipt of the funds.

3.2 User charges and fees

	2019 $'000	2018 $'000
Industry fees[a]	23 972	20 207
Controlled waste[b]	4 560	4 431
Contaminated sites	187	174
Clearing regulations	63	54
Water regulatory fees	57	149
Other charges and fees	15	14
	28 854	**25 029**

(a) Licensing and registration fees relating to prescribed premises under the Part V of the *Environmental Protection Act 1986*.

(b) Fees for the licensing of vehicles transporting controlled public waste as per the Environmental Protection (Controlled Waste) Regulations 2004.

Revenue is recognised and measured at the fair value of consideration received or receivable. Revenue is recognised by reference to the stage of completion of the transaction.

3.3 Commonwealth grants and contributions

	2019 $'000	2018 $'000
Commonwealth grants and contributions	1 112	385
National partnership payments	1 688	2 082
	2 800	**2 467**

For non-reciprocal grants, the department recognises revenue when the grant is receivable at its fair value as and when its fair value can be reliably measured.

Contributions of services are only recognised when a fair value can be reliably determined and the services would have been purchased if not donated.

	2019 $'000	2018 $'000
Indian Ocean Territories Environment	322	291
Indian Ocean Territories Water	5	3
National Pollutant Agency	83	83
Reef Integrated Monitoring and Reporting Program	-	8
Smart Farming Partnerships – National Landcare Program	452	-
National On-farm Emergency Water Infrastructure Rebate Scheme	250	-
National partnership payments	1 688	2 082
	2 800	**2 467**

3.4 Waste levy

	2019 $'000	2018 $'000
Waste levy	77 586	75 509
	77 586	**75 509**

The Waste Avoidance and Resource Recovery Account (WARR) was established in 2008 under section 79 of the *Waste Avoidance and Resource Recovery Act 2007* (WARR Act). Under the Act, metropolitan landfill operators are required to fund the operations of the WARR account. The WARR account holds revenue allocated from the levy to fund programs and waste management.

3.5 Other revenue

	2019 $'000	2018 $'000
Services rendered [a]	2 540	5 202
Lease rentals – land and buildings	220	528
Grants and subs revenue – recurrent	148	265
Tree annuity	179	228
Tree harvest	160	152
Recoup – expense overpaid prior year	55	136
Insurance recovery – workers comp prior year	3	127
Recovery of waste levy [b]	-	10 000
Assets found during the period – works of art	146	-
Asset revenue[c]	689	-
Other revenue	430	606
	4 570	**17 244**

(a) Income from services rendered primarily relates to the Establishing and Maintaining Native Vegetation Offset Account (2018 : Primarily relates to the Department of Primary Industries and Regional Development under the Water for Food program).

(b) On 12 June 2018, the Administrators of one of the Department's debtors, Eclipse Resources Pty Ltd, agreed to the proposal to settle overdue waste levies of $10 million. This amount was received in July 2018.

(c) Revenue is related to an increment in value of land assets after revaluation. It is recognised as other revenue to the extent it reverses the loss on revaluation recognised as other expense in previous years. No revaluation surplus exists in previous year.

4. Key assets

Assets the department utilises for economic benefit or service potential

This section includes information regarding the key assets the department uses to gain economic benefits or provide service potential. The section sets out both the key accounting policies and financial information about the performance of these assets.

	Notes	2019 $'000	2018 $'000
Infrastructure, property, plant and equipment	4.1	347 936	337 523
Intangibles	4.2	20 379	24 866
Total key assets		**368 315**	**362 389**

4.1 Infrastructure, property, plant and equipment

Year ended 30 June 2019 1 July 2018	Capital works in progress $'000	Works of art $'000	Computing equipment $'000	Vehicles $'000	Infrastructure $'000	Plant and equipment $'000	Measurement sites $'000	Leasehold improvements $'000	Buildings $'000	Land $'000	Total $'000
Gross carrying amount	10 659	10	332	151	4 612	5 399	162 153	788	4 780	150 039	338 923
Accumulated depreciation	-	-	(151)	(20)	(74)	(641)	-	(514)	-	-	(1 400)
Accumulated impairment losses	-	-	-	-	-	-	-	-	-	-	-
Carrying amount at start of period	**10 659**	**10**	**181**	**131**	**4 538**	**4 758**	**162 153**	**274**	**4 780**	**150 039**	**337 523**
Additions	8 615	6	114	18	-	159	-	-	-	-	8 912
Transfers in/(out)[a][b]	(8 870)	-	76	48	-	372	8 374	-	-	(1 137)	(1 137)
Assets not previously identified	-	146	-	-	-	-	-	-	-	-	146
Disposals	-	-	-	-	-	-	(4 621)	-	-	(700)	(5 321)
Revaluation increments/ (decrements)	-	-	-	-	-	-	9 014	-	(31)	4 510	13 493
Impairment losses [c]	-	-	-	-	-	(69)	-	-	-	-	(69)
Depreciation	-	-	(99)	(31)	(111)	(695)	(4 292)	(264)	(119)	-	(5 611)
Carrying amount at 30 June 2019	**10 404**	**162**	**272**	**166**	**4 427**	**4 525**	**170 628**	**10**	**4 630**	**152 712**	**347 936**
Gross carrying amount	10 404	162	522	217	4 612	5 920	170 628	11	4 630	152 712	**349 818**
Accumulated depreciation	-	-	(250)	(51)	(185)	(1 326)	-	(1)	-	-	**(1 813)**
Accumulated impairment losses	-	-	-	-	-	(69)	-	-	-	-	**(69)**

(a) The Department of Planning, Lands and Heritage (DPLH) is the only department with the power to sell Crown land. The land is transferred to DPLH for sale and the agency accounts for the transfer as a distribution to owner.

(b) Transfers in/(out) from tangible capital works in progress to asset and land transfer to other agencies.

(c) Recognised in the Statement of comprehensive income. Where an asset measured at cost is written-down to recoverable amount, an impairment loss is recognised in profit or loss. Where a previously revalued asset is written down to recoverable amount, the loss is recognised as a revaluation decrement in other comprehensive income.

▶ Initial recognition

Items of infrastructure, property, plant and equipment costing $5 000 or more are measured initially at cost. Where an asset is acquired for no or nominal cost, the cost is valued at its fair value at the date of acquisition. Items of infrastructure, property, plant and equipment costing less than $5 000 are immediately expensed to the Statement of comprehensive income (other than where they form part of a group of similar items which are significant in total).

Assets transferred as part of a machinery of government change are transferred at their fair value.

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

▶ Subsequent measurement

Subsequent to initial recognition of an asset, the revaluation model is used for the measurement of:

- land
- buildings
- measurement sites.

Land is carried at fair value.

Buildings and measurement sites are carried at fair value less accumulated depreciation and accumulated impairment losses.

All other property, plant and equipment are stated at historical cost less accumulated depreciation and accumulated impairment losses.

▶ Land and buildings

Land and buildings are independently valued annually by the Western Australian Land Information Authority (valuations and property analytics) and recognised annually to ensure that the carrying amount does not differ materially from the asset's fair value at the end of the reporting period.

Land and buildings were revalued as at 1 July 2018 by the Western Australian Land Information Authority (Valuations and Property Analytics). The valuations were performed during the year ended 30 June 2019 and recognised at 30 June 2019. In undertaking the revaluation, fair value was determined by reference to market values for land: $39 957 150 (2018: $39 537 950) and buildings: $2 631 500 (2018: $2 719 000). For the remaining balance, the fair value of buildings was determined on the basis of current replacement cost and the fair value of land was determined on the comparison utility basis with market evidence for land with low level utility (high restricted use land). Where the fair value of building is determined on the current replacement cost basis, the accumulated depreciation is eliminated against the gross carrying amount of the asset and the net amount restated to the revalued amount.

▶ Measurement sites

Measurement sites are independently valued every five years by an external services valuer. In the intervening years, the measurement sites are revalued internally by use of other heavy and civil engineering construction building cost index (BCI) provided by Australian Bureau of Statistics. Groundwater measurement sites were independently revalued by Aquenta Consulting as at 30 June 2017. Fair value for measurement sites is determined by reference to the cost of replacing the remaining future economic benefits embodied in the asset, i.e. the

current replacement cost. Where the fair value of measurement sites is determined on the current replacement cost basis, the accumulated depreciation is eliminated against the gross carrying amount of the asset and the net amount restated to the revalued amount.

► **Significant assumptions and judgements**

The most significant assumptions and judgements in estimating a fair value are made in assessing whether to apply the existing use basis and in determining estimated economic life to assets. Professional judgement by the valuer is required where the evidence does not provide a clear distinction between market type assets and existing use assets.

4.1.1 Depreciation and impairment charge for the period

	2019 $'000	2018 $'000
Depreciation		
Buildings	119	127
Infrastructure	111	74
Plant and equipment	695	641
Vehicles	31	19
Computing equipment	99	151
Leasehold improvements	264	515
Measurement sites	4 292	4 071
Total depreciation	**5 611**	5 598

As at 30 June 2019, there was $69K of impairment on infrastructure, property, plant and equipment (2018: None). Please refer to note 4.2 for guidance in relation to the impairment assessment that has been performed for intangible assets.

► **Finite useful lives**

All infrastructure, property, plant and equipment having a limited useful life are systematically depreciated over their estimated useful lives in a manner that reflects the consumption of their future economic benefits. The exceptions to this rule include assets held for sale, land and investment properties.

Depreciation is calculated on a straight line basis, at rates that allocate the asset's value, less any estimated residual value, over its estimated useful life. Typical estimated useful lives for the different asset classes for current and prior years are included in the table below:

Asset	Useful life: Years
Building	20 to 40 years
Leasehold improvement [b]	20 years
Measurement sites	40 years
Plant and equipment	5 to 20 years
Computing equipment (hardware and software [a])	3 to 5 years
Infrastructure	20 to 50 years
Vehicles	5 years

(a) Software that is integral to the operation of related hardware.

(b) Leasehold improvements are depreciated over the shorter of the lease term and their useful lives.

The estimated useful lives, residual values and depreciation method are reviewed at the end of each annual reporting period, and adjustments are made where appropriate.

Land and works of art, which are considered to have an indefinite life, are not depreciated. Depreciation is not recognised in respect of these assets because their service potential has not, in any material sense, been consumed during the reporting period.

► **Impairment**

Non-financial assets, including items of plant and equipment, are tested for impairment whenever there is an indication that the asset may be impaired. Where there is an indication of impairment, the recoverable amount is estimated. Where the recoverable amount is less than the carrying amount, the asset is considered impaired and is written down to the recoverable amount and an impairment loss is recognised. Where a previously revalued asset is written down to its recoverable amount, the loss is recognised as a revaluation decrement through other comprehensive income.

As the department is a not-for-profit agency, the recoverable amount of regularly revalued specialised assets is anticipated to be materially the same as fair value.

If there is an indication that there has been a reversal in impairment, the carrying amount shall be increased to its recoverable amount. However this reversal should not increase the asset's carrying amount above what would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised in prior years.

The risk of impairment is generally limited to circumstances where an asset's depreciation is materially understated, where the replacement cost is falling or where there is a significant change in useful life. Each relevant class of assets is reviewed annually to verify that the accumulated depreciation/amortisation reflects the level of consumption or expiration of the asset's future economic benefits and to evaluate any impairment risk from declining replacement costs. The estimated useful lives, residual values and depreciation method are reviewed at the end of each annual reporting period, and adjustments are made where appropriate.

4.2 Intangible assets

Year ended 30 June 2019	Capital works in progress $'000	Analytical products $'000	Licences $'000	Computer software $'000	Total $'000
1 July 2018					
Gross carrying amount	3 054	8 742	-	17 852	29 648
Accumulated amortisation	-	(850)	-	(3 932)	(4 782)
Opening amount at start of period	**3 054**	**7 892**	**-**	**13 920**	**24 866**
Additions	1 469	115	21	-	1 605
Transfers In/(Out)[a]	(494)	-	-	494	-
Amortisation expense	-	(874)	(3)	(5 215)	(6 092)
Carrying amount at 30 June 2019	**4 029**	**7 133**	**18**	**9 199**	**20 379**
Gross carrying amount	4 029	8 857	21	18 346	**31 253**
Accumulated amortisation	-	(1 724)	(3)	(9 147)	**(10 874)**

(a) Transfer in/(out) from capital works in progress to asset.

► **Initial recognition**

Acquisitions of intangible assets costing $5000 or more and internally generated intangible assets costing $5000 or more that comply with the recognition criteria as per AASB 138.57 (as noted below), are capitalised.

Costs incurred below these thresholds are immediately expensed directly to the *Statement of comprehensive income*.

Intangible assets are initially recognised at cost. For assets acquired at no cost or for nominal cost, the cost is their fair value at the date of acquisition.

An internally generated intangible asset arising from development (or from the development phase of an internal project) is recognised if, and only if, all of the following are demonstrated:

(a) the technical feasibility of completing the intangible asset so that it will be available for use or sale

(b) an intention to complete the intangible asset and use or sell it

(c) the ability to use or sell the intangible asset

(d) the intangible asset will generate future economic benefit

(e) the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset

(f) the ability to measure reliably the expenditure directly attributable to the intangible asset during its development.

Costs incurred in the research phase of a project are immediately expensed.

► **Subsequent measurement**

The cost model is applied for subsequent measurement of intangible assets requiring the asset to be carried at cost less any accumulated amortisation and accumulated impairment losses.

4.2.1 Amortisation and impairment

	2019 $'000	2018 $'000
Charge for the period		
Analytical products	874	850
Computing software	5 215	3 932
Licences	3	-
Total amortisation for the period	**6 092**	4 782

As at 30 June 2019 there were no indications of impairment to intangible assets.

The department held no goodwill or intangible assets with an indefinite useful life during the reporting period. At the end of the reporting period there were no intangible assets not yet available for use.

Amortisation of finite life intangible assets is calculated on a straight line basis at rates that allocate the asset's value over its estimated useful life. All intangible assets controlled by the department have a finite useful life and zero residual value. Estimated useful lives are reviewed annually.

The estimated useful lives for each class of intangible asset are:

Development costs	3 to 5 years
Software[a]	3 to 5 years
Analytical products[b]	10 years

(a) Software that is not integral to the operation of related hardware.

(b) Analytical products are intangible assets such as geophysical datasets and surveys which are usually produced as part of project work. These products are used by the department to improve its understanding and management of water resources.

► **Impairment of intangible assets**

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

The policy in connection with testing for impairment is outlined in note 4.1.1.

5. Other assets and liabilities

This section sets out those assets and liabilities that arose from the department's controlled operations and includes other assets used for economic benefits and liabilities incurred during normal operations:

	Notes	2019 $'000	2018 $'000
Receivables	5.1	22 748	30 457
Amounts receivable for services	5.2	46 631	37 272
Other current assets	5.3	2 063	1 598
Payables	5.4	(8 585)	(9 217)
Other liabilities	5.5	(520)	(354)

5.1 Receivables

	2019 $'000	2018 $'000
Current		
Trade receivables	1 645	1 231
Allowance for impairment of trade receivables	(167)	(63)
Accrued revenue	19 343	28 098
GST receivable	1 927	1 191
Total current	22 748	30 457
Total amortisation for the period	22 748	**30 457**

The department does not hold any collateral or other credit enhancements as security for trade receivables.

Trade receivables are recognised at original invoice amount less any allowances for uncollectible amounts (i.e. impairment). The carrying amount of net trade receivables is equivalent to fair value as it is due for settlement within 30 days.

5.2 Amounts receivable for services (holding account)

	2019 $'000	2018 $'000
Current	5 994	6 307
Non-current	40 637	30 965
Balance at end of period	**46 631**	**37 272**

Amounts receivable for services represent the non-cash component of service appropriations. It is restricted in that it can only be used for asset replacement or payment of leave liability.

Amounts receivable for services are considered not impaired (i.e. there is no expected credit loss of the holding accounts).

5.3 Other current assets

	2019 $'000	2018 $'000
Current		
Prepayments	2 063	1 598
Total current	**2 063**	**1 598**

Other non-financial assets include prepayments which represent payments in advance of receipt of goods or services or that part of expenditure made in one accounting period covering a term extending beyond that period.

5.4 Payables

	2019 $'000	2018 $'000
Current		
Trade payables[a]	2 529	661
Other payables	572	562
Accrued expenses[c]	5 147	6 015
Accrued salaries[b]	337	321
Total current	**8 585**	7 559
Non-current		
Accrued expenses[c]	-	1 658
Total non-current	-	1 658
Balance at end of period	**8 585**	**9 217**

▶ (a) Trade payables

Payables are recognised at the amounts payable when the department becomes obliged to make future payments as a result of a purchase of assets or services. The carrying amount is equivalent to fair value, as settlement is generally within 30 days.

▶ (b) Accrued salaries

Accrued salaries represent the amount due to staff but unpaid at the end of the reporting period. Accrued salaries are settled within a

fortnight of the reporting period end. The department considers the carrying amount of accrued salaries to be equivalent to its fair value.

(c) Accrued expenses

Accrued expenses primarily relates to Rural Water Grants $2 876 000 (2018: $4 781 000), an independent department-approved water auditor conducts an on-farm water audit, sends a schedule of works based on the audit. The department reviews the schedule of works and approvals. The water auditor goes back and reviews what works have been done under the schedule of works and sends back the schedule of works to the department. The farmer makes an application for a rebate. The department reviews and pays the rebate claim. The program officially closed on 30 June 2018. Unprocessed applications for rebates are accrued as the department's liabilities. The Pastoral Water Grants Scheme (PWGS) is designed to encourage pastoralists to invest in and improve water infrastructure. The planning and installation of improved water supplies will lead to improved reliability of homestead and livestock supplies. The overall outcome will contribute to pastoral properties increasing their water self-sufficiencies and reducing grazing pressure on the rangelands. The grant provides financial assistance for a range of approved water supply infrastructure to overcome demonstrated water supply deficiencies. The grants are provided to develop new water sources for homesteads, to enable better management of livestock and the rangeland resource. The grant is not a property development grant.

5.5 Other current liabilities

	2019 $'000	2018 $'000
Revenue received in advance	516	352
Stale cheque holding account	4	2
Total current liabilities	**520**	**354**

6. Financing

This section sets out the material balances and disclosures associated with the financing and cash flows of the department.

	Notes	2019 $'000	2018 $'000
Cash and cash equivalents	6.1		
Reconciliation of cash	6.1.1	78 082	70 130
Commitments	6.2		
Non-cancellable operating lease commitments	6.2.1	68 770	78 738
Capital commitments	6.2.2	9 681	180
Other expenditure commitments	6.2.3	24 123	6 287

6.1 Cash and cash equivalents

6.1.1 Reconciliation of cash

	2019 $'000	2018 $'000
Reconciliation of cash		
Current		
Cash and cash equivalents	11 958	5 512
Restricted cash and cash equivalents[a]	65 105	63 985
Total current	**77 063**	69 497
Non-current		
Accrued salaries suspense account[b]	1 019	633
Total non-current	**1 019**	633
Balance at end of period	**78 082**	**70 130**

(a) Composed of the Waste Avoidance Resource Recovery Account ($40m), Low Emissions Energy Development Fund ($9.3m), Native Vegetation Offsets Account ($10.6m) and other funds ($5.2m) that are restricted in their purpose and cannot be used in general operations.

(b) Funds held in the suspense account for the purpose of meeting the 27th pay in a reporting period that occurs every 11th year. This account is classified as non-current for 10 out of 11 years.

For the purpose of the statement of cash flows, cash and cash equivalent (and restricted cash and cash equivalent) assets comprise of cash on hand at bank and funds held in the suspense account for the purpose of meeting the 27th pay.

6.2 Commitments

6.2.1 Non-cancellable operating lease commitments

	2019 $'000	2018 $'000
Commitments for minimum lease payments are payable as follows:		
Within 1 year	5 566	9 397
Later than 1 year and not later than 5 years	20 160	22 043
Later than 5 years	43 044	47 298
	68 770	78 738

Operating leases are expensed on a straight line basis over the lease term as this represents the pattern of benefits derived from the leased properties.

The department has entered into seven property leases which are non-cancellable and rents are payable monthly in advance. The leases have terms ranging from within one to fifteen years; some with options to renew at the end of the lease. The department's accommodation leases account for $66.84 million of the non-cancellable operating lease commitments for 2019. Included in the $66.84 million, is $65.4 million payable to Department of Finance relating to 8 Davidson Terrace, Joondalup accommodation where the department has relocated to.

The department's fleet leases account for $1.93 million of the non-cancellable operating lease commitments for 2019. The lease term varies depending on the vehicle. The lease payments are fixed for the term of the lease and are payable monthly. There is no option to renew the lease at the end of the lease term. The department leases its motor vehicle fleet and certain office premises. The lease expenditure is expensed as it is incurred. Motor vehicle leasing arrangements are under the terms of the State Fleet funding facility contract administered by State Fleet – State Supply Commission

6.2.2 Capital commitments

	2019 $'000	2018 $'000
Capital expenditure commitments, being contracted capital expenditure additional to the amounts reported in the financial statements, are payable as follows:		
Within 1 year	1 043	180
Later than 1 year and not later than 5 years	8 638	-
	9 681	180

The totals presented for capital commitments are GST inclusive.

6.2.3 Other expenditure commitments

	2019 $'000	2018 $'000
Other expenditure commitments contracted for at the end of the reporting period but not recognised as liabilities, are:		
Within 1 year	10 830	6 263
Later than 1 year and not later than 5 years	13 293	24
	24 123	6 287

The totals presented for other expenditure commitments are GST inclusive.

► **Judgements made by management in applying accounting policies – operating lease commitments**

The department has entered into a number of leases for buildings for branch office accommodation. Some of these leases relate to buildings of a temporary nature and it has been determined that the lessor retains substantially all the risks and rewards incidental to ownership. Accordingly, these leases have been classified as operating leases.

7. Financial instruments and contingencies

	Notes
Financial instruments	7.1
Contingent assets	7.2.1
Contingent liabilities	7.2.2

7.1 Financial instruments

The carrying amounts of each of the following categories of financial assets and financial liabilities at the end of the reporting period are:

	2019 $'000	2018 $'000
Financial assets		
Cash and cash equivalents	78 082	70 130
Loans and receivables[(a)]	-	66 538
Financial assets at amortised cost[(a)]	67 452	-
Total financial assets	**145 534**	**136 668**
Financial liabilities		
Financial liabilities measured at amortised cost	8 585	9 217
Total financial liabilities	**8 585**	**9 217**

(a) The amount of loans and receivables/financial assets at amortised cost excludes GST recoverable from the Australian Taxation Office (statutory receivable).

7.2 Contingent assets and liabilities

Contingent assets and contingent liabilities are not recognised in the statement of financial position but are disclosed and, if quantifiable, are measured at the best estimate.

Contingent assets and liabilities are presented inclusive of GST receivable or payable respectively.

7.2.1 Contingent assets

The following contingent assets are excluded from the assets included in the financial statements:

	2019 $'000	2018 $'000
Benefit potentially receivable from the state's claim for outstanding waste levies involving Moltoni Corporation Pty Ltd (amount is plus costs and penalties)	-	1 400
Benefit potentially receivable in relation to Supreme Court action involving Fobbing Hall Pty Ltd	100	100
Benefit potentially receivable in relation to Supreme Court action involving R.C.G Technologies Pty Ltd	2 940	2 940
Benefit potentially receivable from the state's claim for outstanding waste levies involving City of Armadale	5 070	-
	8 110	4 440

7.2.2 Contingent liabilities

The following contingent liabilities are excluded from the liabilities included in the financial statements:

	2019 $'000	2018 $'000
Costs potentially payable in relation to WA Industrial Relations Commission action involving termination of registered employee	180	180
Costs potentially payable in relation to Supreme Court action involving Fobbing Hall Pty Ltd	100	100
Contaminated sites		
Under the *Contaminated Sites Act 2003*, state agencies are required to report known and suspected contaminated sites to the Department of Water and Environmental Regulation. In accordance with the Act, the department classifies these sites on the basis of risk to human health, the environment and environmental values. Where sites are classified as contaminated – remediation required or possibly contaminated – investigation required, the department may have a liability in respect of investigation or remediation expenses.		
There is an outstanding contingent liability in relation to the remediation of the Brookdale Liquid Waste Treatment Facility in agreement with the Water Corporation.	400	400
	680	680

8. Other disclosures

This section includes additional material disclosures required by accounting standards or other pronouncements for the understanding of this financial report.

	Notes
Events occurring after the end of the reporting period	8.1
Initial application of Australian Accounting Standards	8.2
Key management personnel	8.3
Related party transactions	8.4
Related bodies	8.5
Affiliated bodies	8.6
Special purpose accounts	8.7
Indian Ocean Territories Account	8.8
Remuneration of auditors	8.9
Non-current assets classified as held for sale	8.10
Equity	8.11
Supplementary financial information	8.12
Explanatory statement (Controlled Operations)	8.13

8.1 Events occurring after the end of the reporting period

There are no significant events that occurred after the end of the reporting period.

8.2 Initial application of Australian Accounting Standards

► **AASB 9 Financial instruments**

AASB 9 *Financial instruments* replaces AASB 139 *Financial instruments: Recognition and Measurements* for annual reporting periods beginning on or after 1 January 2018, bringing together all three aspects of the accounting for financial instruments: classification and measurement; impairment; and hedge accounting.

The department applied AASB 9 prospectively, with an initial application date of 1 July 2018. The adoption of AASB 9 has resulted in changes in accounting policies but no adjustments to the amounts recognised in the financial statements. In accordance with AASB 9.7.2.15, the department has not restated the comparative information which continues to be reported under AASB 139.

The effect of adopting AASB 9 as at 1 July 2018 was assessed as not material, and therefore no adjustment was required to be recognised directly to the Accumulated surplus.

The effect of adopting AASB 9 as at 1 July 2018 was as follows:

(a) Classification and measurement

Under AASB 9, financial assets are subsequently measured at amortised cost, fair value through other comprehensive income (fair value through OCI) or fair value through profit or loss (fair value through P/L). The classification is based on two criteria: the department's business model for managing the assets; and whether the assets' contractual cash flows represent 'solely payments of principal and interest' on the principal amount outstanding.

The assessment of the department's business model was made as of the date of initial application, 1 July 2018. The assessment of whether contractual cash flows on financial assets are solely comprised of principal and interest was made based on the facts and circumstances as at the initial recognition of the assets.

The classification and measurement requirements of AASB 9 did not have a significant impact to the department. The following are the changes in the classification of the department's financial assets:

- Trade receivables and amounts receivable for services classified as 'Loans and receivables' as at 30 June 2018 are held to collect contractual cash flows and give rise to cash flows representing solely payments of principal and interest. These are classified and measured as financial assets at amortised cost beginning 1 July 2018.
- The department did not designate any financial assets as at fair value through profit or loss.

In summary, upon the adaption of AASB 9, the department had the following required (or elected) reclassification as at 1 July 2018.

	AASB 9 category		
	Amortised cost $'000	Fair value through OCI $'000	Fair value through P/L $'000
AASB 139 Category			
Loans and receivables			
Trade receivables	29 266	-	-
Amounts receivable for services	37 272	-	-
	66 538	-	-

(b) Impairment

The adoption of AASB 9 has fundamentally changed the department's accounting for impairment losses for financial assets by replacing AASB 139's incurred loss approach with a forward-looking expected credit loss (ECL) approach. AASB 9 requires the department to recognise an allowance for ECLs for all financial assets not held at fair value through profit or loss.

Upon adoption of AASB 9, the effect was assessed as not material, and therefore no remeasurement was made at 1 July 2018.

8.3 Key management personnel

The department has determined key management personnel to include cabinet ministers and senior officers of the department. The department does not incur expenditures to compensate Ministers and those disclosures may be found in the annual report on state finances.

The total fees, salaries, superannuation, non-monetary benefits and other benefits for senior officers of the department for the reporting period are presented within the following bands:

	2019	2018
Compensation band ($)		
$350 001 – $360 000	1	1
$240 001 – $250 000	1	-
$230 001 – $240 000	2	-
$220 001 – $230 000	2	2
$210 001 – $220 000	2	4
$200 001 – $210 000	-	2
$190 001 – $200 000	-	1
$80 001 – $90 000	1	1

	2019 $'000	2018 $'000
Total compensation of senior officers	2 037	2 366

Total compensation includes the superannuation expense incurred by the department in respect of senior officers.

8.4 Related party transactions

The department is a wholly-owned public sector entity that is controlled by the state of Western Australia.

Related parties of the department include:

- all cabinet ministers and their close family members and their controlled or jointly controlled entities
- all senior officers and their close family members and their controlled or jointly controlled entities
- other departments and statutory authorities including related bodies that are included in the whole-of-government consolidated financial statements (i.e. wholly owned public sector entities)
- associates and joint ventures of a wholly-owned public sector entity
- the Government Employees Superannuation Board GESB (Note 2.1(a)).

► Material transactions with other related parties

Outside of normal citizen type transactions with the department there were no other related party transactions that involved key management personnel and/or their close family members and/or their controlled (or jointly controlled) entities.

8.5 Related bodies

The department currently does not provide any assistance to other agencies which would deem them to be regarded as related bodies under the definitions included in Treasurer's Instruction 951 *Related and Affiliated Bodies*.

8.6 Affiliated bodies

The department currently does not provide any assistance to other agencies which would deem them to be regarded as related bodies under the definitions included in Treasurer's Instruction 951 *Related and Affiliated Bodies*.

8.7 Special purpose accounts

► **Reserve 31165 Trust Account[(b)]**

The purpose of the account is joint management as specified in clause 9 of the agreement and in relation to land south of Lake Argyle for the purposes of protecting the water resource value of Lake Argyle and the Ord River Dam.

	2019 $'000	2018 $'000
Transferred from the former agencies/balance at start of period	481	330
Receipts	123	151
Payments	(7)	-
Balance at end of period	**597**	**481**

► **Contaminated Sites Management Account[(a)]**

The purpose of the account is to enable investigation or remediation of any site where the state or a public authority (excluding local government) is responsible for remediation. The account also funds the department's costs of investigation and ensuring compliance with notices.

	2019 $'000	2018 $'000
Transferred from the former agencies/balance at start of period	1 863	1 942
Receipts	187	171
Payments	(1 493)	(250)
Balance at end of period	**557**	**1 863**

► Waste Avoidance and Resource Recovery Account[(a)]

The purpose of the account is to: encourage the conservation of resources and energy through waste reduction and recycling; to promote support and encourage viable alternatives to landfill disposal of waste; to encourage applied research and the development of appropriate waste management, waste reduction and recycling infrastructure and markets. The account is used to fund nominated programs and other waste management initiatives approved by the Minister for the Environment on the advice of the Waste Authority of Western Australia.

	2019 $'000	2018 $'000
Transferred from the former agencies/balance at start of period	38 581	33 246
Receipts	21 663	19 862
Payments	(20 264)	(14 527)
Balance at end of period	**39 980**	**38 581**

(a) Established under section 16(1)(c) of FMA

(b) Established under section 16(1)(b) of FMA

8.8 Indian Ocean Territories Account

► Indian Ocean Territories Account (Water activities)

The purpose of the account is to account for Commonwealth funds for service delivery arrangements by the department to the Indian Ocean Territories.

	2019 $'000	2018 $'000
Transferred from the former agencies/Balance at start of period	4	4
Receipts	5	3
Payments	-	(3)
Balance at end of period	**9**	**4**

► Indian Ocean Territories Account (Environmental activities)

The purpose of the account is to account for Commonwealth funds for service delivery arrangements by the department to the Indian Ocean Territories.

	2019 $'000	2018 $'000
Transferred from the former agencies/balance at start of period	3	33
Receipts	322	292
Payments	(346)	(322)
Balance at end of period[(a)]	**(21)**	**3**

► **(a) Balance at end of period**

Under the terms of the service deliver arrangements (SDA), state agencies are to provide a statement of receipts and expenditure for the previous financial year to the Department of Infrastructure and Regional Development by 31 August each year.

This notification enables adjustments to quarterly payments to be made early in the financial year to take into account any under or over spends against budget estimates from the previous financial year.

8.9 Remuneration of auditors

Remuneration paid or payable to the Auditor General in respect of the audit for the current financial year is as follows:

	2019 $'000	2018 $'000
Auditing the accounts, financial statements, controls and key performance indicators	283	269
	283	**269**

8.10 Non-current assets classified as assets held for sale

The following table represents a summary of assets held for sale:

	Land $'000	Less write-down from cost to fair value less selling costs $'000	Total $'000
2019			
Opening balance	-	-	-
Total assets reclassified as property, plant and equipment	-	-	-
Total assets classified as held for sale	-	-	-
Less assets sold			-
Closing balance	-	-	-
2018			
Transferred from the former agencies	1 055	-	1 055
Total assets reclassified as property, plant and equipment	(700)	-	(700)
Total assets classified as held for sale	355	-	355
Less assets sold	355	-	355
Closing balance	-	-	-

8.11 Equity

	2019 $'000	2018 $'000
Contributed equity		
Balance at start of period	411 761	-
Contributions by owners		
Capital appropriation	4 654	10 264
Net assets transferred in note[(a)]	-	465 227
Total contributions by owners	**416 415**	475 491
Distributions to owners		
Transfer to consolidated account	(41 333)	(63 730)
Transfer to other agencies		-
Land transferred to Department of Planning, Lands and Heritage	(87)	-
Land transferred to Department of Biodiversity Conservation and Attractions	(1 050)	-
Total distributions to owners	**(42 470)**	(63 730)
Balance at end of period	**373 945**	**411 761**
Asset revaluation surplus		
Balance at start of period	1 305	-
Net revaluation increments / (decrements)		
Land and measurement sites	12 835	1 305
Balance at the end of the year	**14 140**	**1 305**

(a) The Department of Water (DoW), Department of Environment Regulation (DER) and Office of The Environmental Protection Authority (OEPA) were amalgamated to form a new department – the Department of Water and Environmental Regulation on 1 July 2017.

Assets and liabilities transferred from former agencies at 1 July 2017 are as follows:

2018	DER $'000	DOW $'000	OEPA $'000	Total $'000
Cash assets	61 148	26 464	917	88 529
Receivables	19 496	28 285	723	48 504
Other current assets	410	2 824	-	3 234
Intangible assets	9	27 344	77	27 430
Property, plant and equipment	2 496	327 314	259	330 069
Payables	(628)	(3 213)	(195)	(4 036)
Provisions	(9 337)	(15 757)	(2 153)	(27 247)
Other liabilities	(1 084)	(172)	-	(1 256)
Total net assets	**72 510**	**393 089**	**(372)**	**465 227**

8.12 Supplementary financial information

► (a) Write-offs

	2019 $'000	2018 $'000
The accountable authority	17	-
The Minister	-	-
Executive Council	-	-
	17	-

► (b) Losses through theft, defaults and other causes

During the financial year there were no losses of public money and property through theft or default (2018: None).

► (c) Gifts of public property

The department had no gifts of public property during the financial year (2018: None).

8.13 Explanatory statement (controlled operations)

All variances between estimates (original budget) and actual results for 2019 and between the actual results for 2018 and 2019 are shown below. Narratives are provided for key major variances which are generally greater than:

- 5 per cent and $3.41 million for the *Statements of comprehensive income and cash flows*
- 5 per cent and $10.036 million for the *Statement of financial position*.

8.13.1 Statement of comprehensive income variances

	Variance note	Estimate 2019 $'000	Actual 2019 $'000	Actual 2018 $'000	Variance between estimate and actual $'000	Variance between actual results for 2019 and 2018 $'000
Expenses						
Employee benefits expense	a	92 227	92 288	97 876	61	(5 588)
Supplies and services	b	36 376	35 489	31 689	(887)	3 800
Depreciation and amortisation expense	1	15 666	11 703	10 380	(3 963)	1 323
Accommodation expenses		9 658	8 392	9 695	(1 266)	(1 303)
Grants and subsidies		15 145	15 160	18 463	15	(3 303)
Other expenses		1 488	3 216	4 724	1 728	(1 508)
Loss on disposal of non-current assets	2,c	-	4 664	580	4 664	4 084
Total cost of services		**170 560**	**170 912**	**173 407**	**352**	**(2 495)**
Income						
Revenue						
User charges and fees	d	30 898	28 854	25 029	(2 044)	3 825
Commonwealth grants and contributions		325	2 800	2 467	2 475	333
Waste levy	3	83 000	77 586	75 509	(5 414)	2 077
Interest revenue		750	899	735	149	164
Other revenue	e	5 949	4 570	17 244	(1 379)	(12 674)
Total revenue		120 922	114 709	120 984	(6 213)	(6 275)
Total income other than income from state government		**120 922**	**114 709**	**120 984**	**(6 213)**	**(6 275)**
Net cost of services		**49 638**	**56 203**	**52 423**	**6 565**	**3 780**

8.13.1 Statement of comprehensive income variances (continued)

Income from state government	Variance note	Estimate 2019 $'000	Actual 2019 $'000	Actual 2018 $'000	Variance between estimate and actual $'000	Variance between actual results for 2019 and 2018 $'000
Service appropriation	f	82 809	83 012	92 892	203	(9 880)
State grants		3 864	2 062	3 835	(1 802)	(1 773)
Services received free of charge		1 734	2 629	1 709	895	920
Royalties for Regions fund		9 106	9 220	8 287	114	933
Total income from state government		97 513	96 923	106 723	(590)	(9 800)
Surplus for the period		**47 875**	40 720	**54 300**	**(7 155)**	**(13 580)**
Other comprehensive income						
Items not reclassified subsequently to profit or loss						
Changes in asset revaluation surplus		-	12 835	1 305	12 835	11 530
Total other comprehensive income		-	12 835	1 305	12 835	11 530
Total comprehensive income for the period		**47 875**	53 555	**55 605**	**5 680**	**(2 050)**

► **Major estimate and actual (2019) variance narratives**

1. The 2019 depreciation and amortisation actual expenditure is lower than the estimate by $4.0 million (25.3%) mainly due to the delay in commissioning measurement sites.
2. Loss on disposal of non-current assets increased by $4.7 million (100%) mainly due to the decommissioning of 55 measurement site bores.
3. The waste levy revenue decreased by $5.4 million (6.5%) due to reduced volumes of waste than estimated. This can be partly attributable to increased waste levy rates.

► **Major actual (2019) and comparative (2018) variance narratives**

a) Employee benefits expense was higher in the 2018 comparative by $5.6 million (5.7%) mainly due to the Voluntary Targeted Severance Scheme and a revised public sector wages policy.

b) Supplies and services expense increased by $3.8 million (12.0%) largely due to legal expenses for the settlement of Eclipse Resources Pty Ltd outstanding waste levies.

c) Loss on disposal of non-current assets increased by $4.1 million (704.1%) mainly due to the decommissioning of 55 measurement bore sites.

d) The increase in user charges and fees by $3.8 million (15.3%) resulted from increases in industry regulation licence fees to address cost recovery.

e) The higher 2018 other revenue comparative by $12.7 million (73.5%) was primarily a result of the $10 million settlement of legal action by the creditors of Eclipse Resources Pty Ltd in favour of the department and for services rendered to the Department of Primary Industries and Regional Development for the Water for Food program.

f) Reduction in service appropriation by $9.9 million (10.6%) was a result of the Voluntary Targeted Severance Scheme. In addition, there was a revised public sector wages policy and senior executive services corrective measure.

8.13.2 Statement of financial position variances

	Variance note	Estimate 2019 $'000	Actual 2019 $'000	Actual 2018 $'000	Variance between estimate and actual $'000	Variance between actual results for 2019 and 2018 $'000
Assets						
Current assets						
Cash and cash equivalents		17 691	11 958	5 512	(5 733)	6 446
Restricted cash and cash equivalents		63 241	65 105	63 985	1 864	1 120
Receivables		20 458	22 748	30 457	2 290	(7 709)
Amounts receivable for services		5 671	5 994	6 307	323	(313)
Other current assets		1 740	2 063	1 598	323	465
Non-current assets held for sale		1 055	-	-	(1 055)	-
Total current assets		**109 856**	**107 868**	**107 859**	**(1 988)**	**9**
Non-current assets						
Restricted cash and cash equivalents		1 064	1 019	633	(45)	386
Amounts receivable for services		41 171	40 637	30 965	(534)	9 672
Infrastructure, property, plant and equipment		333 875	347 936	337 523	14 061	10 413
Intangible assets		24 393	20 379	24 866	(4 014)	(4 487)
Total non-current assets		**400 503**	**409 971**	**393 987**	**9 468**	**15 984**
Total assets		**510 359**	**517 839**	**501 846**	**7 480**	**15 993**

8.13.2 Statement of financial position variances (continued)

	Variance note	Estimate 2019 $'000	Actual 2019 $'000	Actual 2018 $'000	Variance between estimate and actual $'000	Variance between actual results for 2019 and 2018 $'000
Liabilities						
Current liabilities						
Payables		5 294	8 585	7 559	3 291	1 026
Employee-related provisions		19 599	20 354	19 836	755	518
Other current liabilities		1 276	520	354	(756)	166
Total current liabilities		**26 169**	**29 459**	**27 749**	**3 290**	**1 710**
Non-current liabilities						
Employee related provisions		4 093	5 275	5 073	1 182	202
Payables		1	-	1 658	(1)	(1 658)
Total non-current liabilities		**4 094**	**5 275**	**6 731**	**1 181**	**(1 456)**
Total liabilities		30 263	34 734	34 480	4 471	254
Net assets		**480 096**	**483 105**	**467 366**	**3 009**	**15 739**
Equity						
Contributed equity		380 938	373 945	411 761	(6 993)	(37 816)
Reserves	g	13 896	14 140	1 305	244	12 835
Accumulated surplus		85 262	95 020	54 300	9 758	40 720
Total equity		**480 096**	**483 105**	**467 366**	**3 009**	**15 739**

► **Major estimate and actual (2019) variance narratives**

NIL

► **Major actual (2019) and comparative (2018) variance narratives**

g) The increase in Reserves by $12.8 million (983.5%) is attributable to an increase in the revaluation of land and measurement sites.

8.13.3 Statement of cash flows variances

	Variance note	Estimate 2019 $'000	Actual 2019 $'000	Actual 2018 $'000	Variance between estimate and actual $'000	Variance between actual results for 2019 and 2018 $'000
Cash flows from state government						
Service appropriation	h	66 932	67 346	77 120	414	(9 774)
Cash transferred from the former agencies	i	-	-	88 529	-	(88 529)
Capital appropriations	j	4 654	4 654	10 264	-	(5 610)
Holding account drawdown		6 307	6 307	7 354	-	(1 047)
Distributions to owner	k	(44 276)	(41 056)	(63 443)	3 220	22 387
Net proceeds on sale of land remitted to consolidated account		-	(277)	(287)	(277)	10
Royalties for Regions fund		9 106	9 220	8 287	114	933
State grants		3 864	1 551	3 835	(2 313)	(2 284)
Net cash provided by state government		46 587	**47 745**	131 659	1 158	(83 914)

8.13.3 Statement of cash flows variances (continued)

	Variance note	Estimate 2019 $'000	Actual 2019 $'000	Actual 2018 $'000	Variance between estimate and actual $'000	Variance between actual results for 2019 and 2018 $'000
Cash flows from operating activities						
Payments						
Employee benefits	l	(92 178)	(91 352)	(99 214)	826	7 862
Supplies and services	4	(34 614)	(31 184)	(28 039)	3 430	(3 145)
Accommodation		(9 668)	(8 269)	(9 699)	1 399	1 430
Grants and subsidies	m	(15 145)	(17 107)	(11 688)	(1 962)	(5 419)
GST payments on purchases		(7 192)	(6 664)	(8 601)	528	1 937
Other payments		(1 496)	(2 391)	(3 986)	(895)	1 595
Receipts						
User charges and fees	n	30 898	28 896	24 675	(2 002)	4 221
Commonwealth grants and contributions		325	1 121	2 302	796	(1 181)
Interest received		750	919	530	169	389
Waste levy	5	83 000	77 571	73 971	(5 429)	3 600
GST receipts on sales		649	295	909	(354)	(614)
GST receipts from taxation authority		6 543	5 838	6 451	(705)	(613)
Other receipts		5 849	3 712	6 282	(2 137)	(2 570)
Recovery of waste levy	6, o	-	10 000	-	10 000	10 000
Net cash used in operating activities		(32 279)	(28 615)	(46 107)	3 664	17 492
Cash flows from investing activities						
Payments						
Purchase of non-current assets	p	(14 516)	(11 469)	(15 742)	3 047	4 273
Receipts						
Proceeds from sale of non-current assets		-	291	320	291	(29)
Net cash used in investing activities		(14 516)	(11 178)	(15 422)	3 338	4 244
Net increase/(decrease) in cash and cash equivalents		(208)	7 952	70 130	8 160	(62 178)
Cash and cash equivalents at the beginning of the period		82 204	70 130	-	(12 074)	70 130
Cash and cash equivalents at the end of the period		**81 996**	**78 082**	**70 130**	**(3 914)**	**7 952**

► **Major estimate and actual (2019) variance narratives**

4. The underspent in supplies and services expense by $3.4 million (9.9%) is mainly due to savings in estimated consultants and contractor costs.
5. The reduction in the 2019 waste levy income by $5.4 million (6.5%) is due to reduced volumes which reduced the waste levy.
6. The 100% increase in the recovery of waste levy is attributable to $10 million received as settlement of Eclipse Resources Pty Ltd overdue waste levies.

► **Major actual (2019) and comparative (2018) variance narratives**

h) Service appropriations decreased by $9.8 million (12.7%) mainly due to the savings from the Voluntary Targeted Severance Scheme in 2019 and a revised public sector wages policy.

i) Cash transferred in 2018 of $88.5 million (100%) reflected the creation of the new Department of Water and Environmental Regulation.

j) Capital appropriation decreased by $5.6 million (54.7%) was a result of the commissioning of the Kent Street Weir and Water Online in 2018. In addition, there was deferral of land acquisition into 2020.

k) Distribution to owner in 2018 was higher by $22.4 million (35.3%) as it reflected the creation of the new Department of Water and Environmental Regulation. The 2019 result reflects the retention of adequate restricted and working cash.

l) The decrease in employee benefits of $7.9 million (7.9%) was mainly due to the Voluntary Targeted Severance Scheme and a revised public sector wages policy.

m) This increase in grant and subsidies by $5.4 million (46.4%) is a result of additional Waste Avoidance and Resource Recovery Account programs payments in the current financial year.

n) The increase in user charges and fees by $4.2 million (17.1%) resulted from increases in industry regulation licence fees to address cost recovery.

o) The increase in the recovery of waste levy receipt by $10 million (100%) is attributable to settlement of Eclipse Resources Pty Ltd overdue waste levies.

p) Purchases of non-current physical assets decreased by $4.3 million (27.1%) in accordance with the 10-year strategic asset plan and reflects uneven profiling between years.

9. Administered disclosures

This section sets out all of the statutory disclosures regarding the financial performance of the department.

	Notes
Disclosure of administered income and expenses	9.1
Explanatory statement for administered items	9.2
Administered assets and liabilities	9.3

9.1 Disclosure of administered income and expenses

	2019 $'000	2018 $'000
Income from administered items		
Income		
For transfer:		
Regulatory fees and other charges[(a)]	102	100
Total administered income	**102**	**100**
Expenses		
Payments into the consolidated account[(a)]	103	97
Total administered expenses	**103**	**97**

(a) Payments into the Consolidated account included water fines collected on behalf of the Water Corporation, and environmental infringement regulatory fees and fines collected on behalf of government.

9.2 Explanatory statement for administered items

All variances between estimates (original budget) and actual results for 2019, and between the actual results for 2019 and 2018 are shown below. Narratives are provided for key major variances, which are generally greater than 5% and $2000.

	Variance note	Estimate 2019 $'000	Actual 2019 $'000	Actual 2018 $'000	Variance between estimate and actual $'000	Variance between actual results for 2019 and 2018 $'000
Income from administered items						
Income						
For transfer:						
Regulatory fees and other charges[(a)]	1	155	102	100	(53)	2
National partnership payments	2	1 623	-	-	(1 623)	-
Total administered income		**1 778**	**102**	**100**	**(1 676)**	**2**
Expenses						
Payments into the consolidated account	1,a	155	103	97	(52)	6
Grants and subsidies – recurrent	2	1 623	-	-	(1 623)	-
Total administered expenses		**1 778**	**103**	**97**	**(1 675)**	**6**

(a) Payments into the consolidated account included water fines collected on behalf of the Water Corporation, and environmental infringement regulatory fees and fines collected on behalf of government

► **Major estimate and actual (2019) variance narratives**

1. The reduction of $53 000 (34.2%) against estimate, primarily relates to the water regulatory fines and penalties actual being less than estimated.
2. National partnership payments decreased by $1.6 million (100%) due to the fact that the funding agreement with the Commonwealth for national partnership payments (also known as National Water Infrastructure Development Fund) was incorrectly budgeted under the administered account. Subsequently it was reclassified into the Department of Water and Environmental Regulation's controlled account revised estimate.

► **Major actual (2019) and comparative (2018) variance narratives**

a) Regulatory fees and fines were $6 000 (6.2%) greater, primarily due to increased low value infringements.

9.3 Administered assets and liabilities

	2019 $'000	2018 $'000
Asset		
Current asset		
Cash and cash equivalents	1	3
Total administered current assets	1	3
Total administered assets	**1**	**3**
Liability		
Current liability		
Payables	1	3
Total administered current liabilities	1	3
Total administered liabilities	**1**	**3**

10. Resources provided free of charge

During the period the following resources were provided to other agencies free of charge for functions outside the normal operations of the department.

	2019 $'000	2018 $'000
State governments departments and agencies		
Department of Biodiversity, Conservation and Attractions	156	-
Department of Fire and Emergency Services	331	-
Department of Planning, Lands and Heritage	1	-
Department of Primary Industries and Regional Development	12	-
Keep Australia Beautiful Council (WA)	261	260
Main Roads WA	3	53
Public Transport Authority	3	-
WA planning Commission	5	-
Water Corporation	12	-
Western Power	3	-
Other agencies	1	17
Total resources provided free of charge	**788**	**330**

Outcome-based performance management

In 2018–19, the department had one broad government goal and was funded to deliver this goal through six outcomes and nine services. This table illustrates the relationship between our services and desired outcomes, and the government goal they contribute to.

Appendix B shows the relationships between our indicators, outcomes and services.

Following the machinery of government changes, the Department of Water, the Department of Environment Regulation and the Office of the Environmental Protection Authority were amalgamated and formed the Department of Water and Environmental Regulation (DWER) on 1 July 2017. This is the second reporting period for the new department.

Results with significant variances of 10 per cent or more compared to the target and prior year results are explained.

➤ Outcome-based management framework

Government goal	Agency outcome	Agency services
Better places: A quality environment with liveable and affordable communities and vibrant regions	1 Western Australia's growth and development is supported by the sustainable management of water resources for the long-term benefit of the state	1. Water information and advice
		2. Water planning, allocation and optimisation
		3. Water regulation, licensing and industry governance
	2 Emissions, discharges and clearing of native vegetation are effectively regulated to avoid unacceptable risks to public health and the environment	4. Environmental regulation
	3 Development and implementation of strategic policy and legislation that promoted sustainable environmental outcomes	5. Environmental policy
	4 Waste avoided and the recovery of materials from landfill maximised	6. Waste strategies
	5 Quality advice to the Environmental Protection Authority (EPA) and Minister for Environment (the Minister) on significant proposals and environmental issues	7. Environmental impact assessment services to the EPA
		8. Environmental management services to the EPA
	6 Compliance with Ministerial Statement implementation conditions are monitored effectively	9. Compliance monitoring services to the Minister for Environment

Key performance indicators

As shown in the outcome-based table, the department aims to use performance measurement to gain insight into, and make judgements about, the effectiveness and efficiency of the services we provided to the community in 2018–19. This both measures our achievements and shows where we need to improve and develop our services to the community.

In this section, we provide the details of our agreed measurements in two ways, through key effectiveness and key efficiency indicators. Through key **effectiveness** indicators, we measure the extent of impact and success in the delivery of our services against the achievement of desired outcomes. The key **efficiency** indicators monitor the relationship between the services delivered and the resources we use to produce our services.

Certification of key performance indicators

I hereby certify that the key performance indicators are based on proper records, are relevant and appropriate for assisting users to assess the Department of Water and Environmental Regulation's performance, and fairly represent the performance of the Department of Water and Environmental Regulation for the financial year ended 30 June 2019.

Mike Rowe
Director General
18 September 2019

Key effectiveness indicators

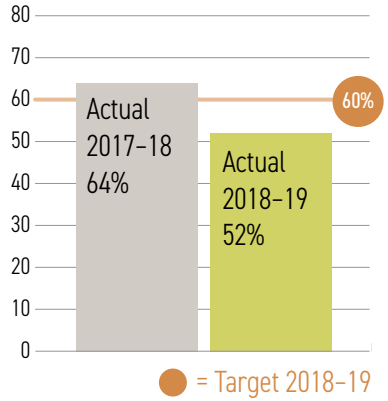
List of indicators

Agency outcome	Key effectiveness indicators	Page
1	1. Proportion of stakeholders who perceive the department to be effectively managing the state's water as a resource for sustainable, productive use	158
	2. Proportion of priority growth areas that have a water supply planning strategy	159
2	3. Percentage of regulatory compliance activities completed as planned	161
	4. Percentage of potential environmental risks identified during compliance monitoring program that are rectified within two months	162
3	5. Percentage of advice and recommendations that met Ministerial approval, without the need for significant modification	163
4	6. Percentage of municipal solid waste reported as diverted from landfill through recycling compared to waste strategy target in the Perth metropolitan region	164
	7 Percentage of commercial and industrial waste reported as diverted from landfill through recycling compared to the statewide waste strategy target	165
	8. Percentage of construction and demolition waste reported as diverted from landfill through recycling compared to the statewide waste strategy target	166
5	9. The EPA's satisfaction with the department's environmental impact assessment (EIA) service, during the year, in line with best practice principles of EIA	167
	10. Percentage of project-specific conditions which did not require significant change following the appeal process	168
	11. Percentage of assessments that met agreed timelines	168
	12. The EPA's satisfaction with the department's provision of environmental management services during the year	169
6	13. The number of Ministerial Statements audited compared to targets	169

1

Outcome 1
Proportion of stakeholders who perceive the department to be effectively managing the state's water as a resource for sustainable, productive use

1 Proportion of stakeholders who perceive the department to be effectively managing the state's water as a resource for sustainable, productive use[(a)]



(a) The 2018–19 survey results have a confidence interval of +/-5.0% at 95% confidence level.
Other survey statistics include:

- Population size: 1540 stakeholders
- Population character: stakeholder contacts provided by DWER
- Stakeholders invited to participate: 1540 stakeholders
- Number of participants: 294
- Number of respondents: 294
- Response rate: 19%
- How sample was selected: total population as provided by DWER contacted by email or mail (for those without email contact details). The initial contact sought assistance with an online survey. Phone follow-up interviews were sought with stakeholders who did not respond to the online self-completion invitation.

The management of the state's water resources to enable growth and development is a core objective for the department, and this occurs within the context of ensuring the sustainability of the resources and their dependent environments.

The department has many stakeholders with competing interests, including those from industry, investment, community and environmental sectors.

A survey was conducted in March 2019 with the intent to determine the extent to which stakeholders perceive the department to be effectively

fulfilling the statutory and other obligations that form its core role rather than satisfaction with a particular decision or handling of a specific issue.

The indicator is based on feedback received from stakeholders through the survey. It is calculated as a percentage of respondents answering 'Very effective' or 'Quite effective' to a question in the survey about their perception of the department effectively managing the state's water as a resource for sustainable productive use. The other options for selection included 'Neither one nor the other', 'Quite ineffective', 'Very ineffective' or 'Don't know'.

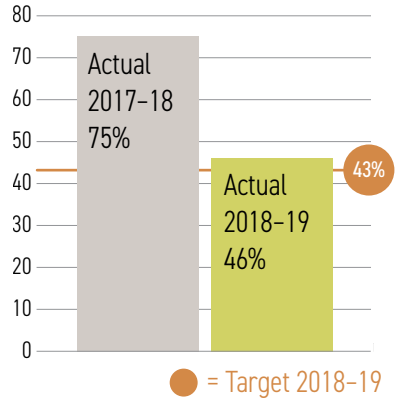
► Variance analysis

The 2018–19 Actual is lower than the Target and prior year due to an increase in uncertainty responses. The increase in uncertainty responses is mainly from categories of large water licence holders and other stakeholders rather than the top/key stakeholder category. Analysis of responses show that the key reasons for an increase in uncertainty ('Neither' and 'Don't know' responses) are:

- a request for greater communication and engagement
- issue with transparency in decisions and a perception that the department errs on the side of water sustainability over industry
- concerns about the resources available for water management.

2 Proportion of priority growth areas that have a water supply planning strategy

'Priority growth areas' refers to a list of significant projects and water resources areas. For each priority growth area, the department or key stakeholders in collaboration with the department, develops a water supply plan or strategy to identify current and future water resource and supply options to meet demand for industry and population growth over the long term. This supports the timely development of resource and supply options to meet demand in areas of state priority.



Projects included in the priority growth areas have strategic significance for the state; and include areas identified through the Water Supply–Demand Model as having a gap between future water demand and water availability.

The indicator is calculated as a percentage of the priority growth areas with a water supply planning strategy (or advisory report for key stakeholders) out of the total priority growth areas that the department is currently working on.

► Variance analysis

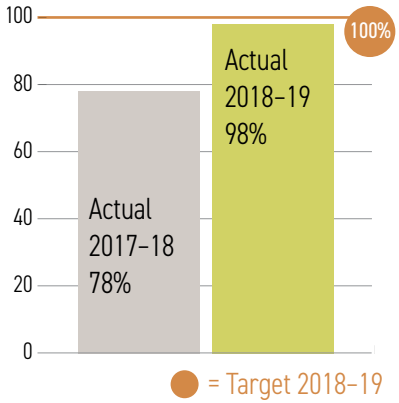
Prior to 2018–19, the proportion of priority growth areas with implemented water supply planning strategy was based on five-year water supply strategic plan for the period 2013–14 to 2017–18. The five-year plan ended in 2017–18. The approach for establishing the total priority growth areas has changed since 2018–19. Under the new plan a list of total priority growth areas will be reset every three years so that the target and actual percentage of priority growth areas with a water supply planning strategy or advisory report will be reported on cumulative number of areas that have a water supply planning strategy over a three-year period.

Twelve (75 per cent) outputs were completed for the sixteen priority growth areas identified for the Water Supply Planning Strategy during the period 2013–2014 to 2017–18. At the end of 2017–18, a list of thirteen new priority growth areas were established with six completed in 2018–19 (46 per cent).

2

Outcome 2
Emissions, discharges and clearing of native vegetation are effectively regulated to avoid unacceptable risks to public health and the environment

3 Percentage of regulatory compliance activities completed as planned



Compliance activities are an integral part of the department's regulatory work and include promotion, monitoring and enforcement. Information gathered and assessed through compliance activities is also used to inform and revise both regulation and policy frameworks as well as to inform legislative reform programs.

The department is a risk-based regulator that channels its resources to address the greatest risks to public health, the environment and water resources and is responsive to emerging risks and issues.

The Prescribed Premise Compliance Monitoring Program is focused on the assessment of emissions and discharges from premises to ensure they are managed appropriately by the current instrument and relevant legislation to ensure there is no unacceptable risk to public health, the environment or water resources. The program identifies premises and targets activities based on a risk assessment informed by environmental and operational risk including type of activity, compliance history and intelligence gathered including from complaints and incidents. The nominated inspections are scheduled.

4 Percentage of potential environmental risks identified during compliance monitoring program that are rectified within two months

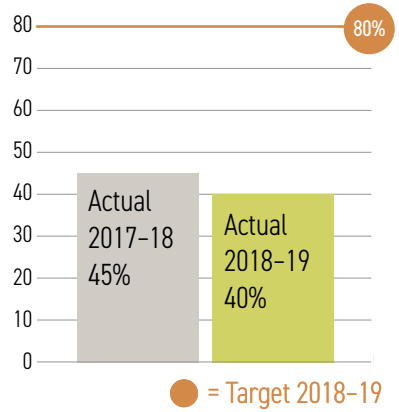
The Waste sector compliance monitoring program assessed compliance at landfills and associated industries with the requirements of the landfill levy.

► Variance analysis

The department planned 245 inspections and conducted 240 inspections in 2018–19. In addition, 110 unplanned inspections have been completed for landfill levy compliance monitoring program.

The improved percentage of regulatory compliance activity from 78 per cent in 2017–18 to 98 per cent in 2018–19 is in part due to a reduction in the number of planned inspections for 2018–19, to allow more time to dedicate to emerging issues and risks through unplanned inspections.

Non compliances identified through inspections undertaken as part of Prescribed Premises Compliance Monitoring Program and the Waste sector compliance monitoring program are recorded and the length of time taken for these non-compliances to be rectified is tracked.



Non compliances vary in nature from administrative non-compliances which are technical in nature and generally pose a low risk to public health, the environment or water resources through to operational non compliances and emissions.

As compliance monitoring programs target inspections at areas of greatest risk, the resolution of non-compliance is often protracted and relies on work by third parties, therefore requiring longer than the two calendar month target timeframe.

► Variance analysis

During 2018–19, a total of 134 non-compliances were identified as a result of inspections under the Waste Sector Program and Prescribed Premises Compliance Program. The target of 80 per cent of non-compliances being closed within two calendar months was not achieved. Forty per cent of non-compliances were closed within the specified timeframe. As a result

of the Prescribed Premises Compliance Program targeting its inspections at areas of greatest risk, resolution of non-compliances is often protracted, and relies upon work undertaken by third parties requiring longer than the two calendar month timeframe.

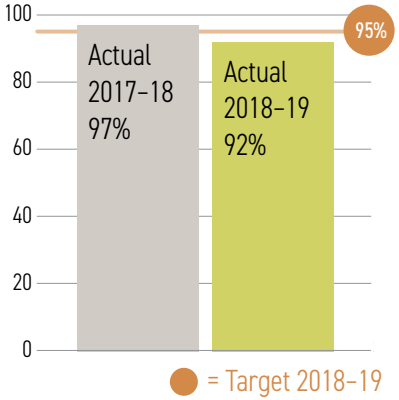
The reduction in the Actuals for 2018–19 from the 2017–18 was primarily due to the Prescribed Premises Compliance Program targeting its inspections at areas of greater risk which increased the protracted work by third parties.

3

Outcome 3
Development and implementation of strategic policy and legislation that promoted sustainable environmental outcomes

5 Percentage of advice and recommendations that met Ministerial approval, without the need for significant modification

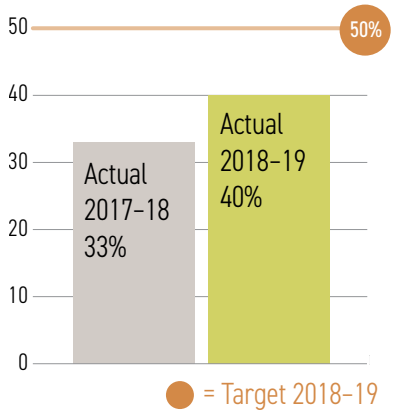
This indicator seeks to ensure that the advice provided by the department is consistent with the government's policy direction by measuring how well it meets the Minister's expectations.



4

Outcome 4
Waste avoided and the recovery of materials from landfill maximised

6 Percentage of municipal solid waste reported as diverted from landfill through recycling compared to waste strategy target in the Perth metropolitan region



The indicator is a direct measure of the effectiveness of the government's waste management goal of diverting waste from landfill and reflects the target in the waste strategy.

Municipal solid waste includes construction and demolition waste generated by local governments.

Due to significant time required to gather the relevant information, 2017–18 data, as reported in *Recycling activity in Western Australia 2017–18*, was used to calculate this indicator for 2018–19, the same basis used in prior year.

► Variance analysis

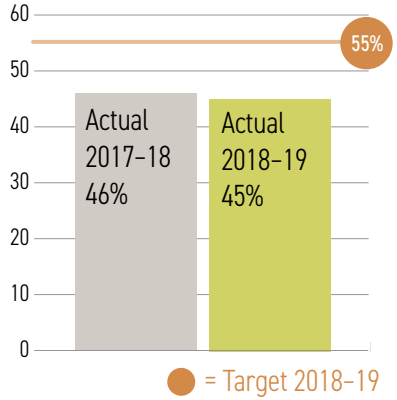
The variance between the 2018–19 Target and the 2018–19 Actual reflects the lack of significant change in the services and infrastructure being provided by local governments to households. The majority of household waste is collected directly from the kerbside. In Western Australia, the best kerbside systems for waste recovery are those that include a third bin. It is anticipated that the rollout of a third kerbside bin by local governments under the Better Bins program will start to have a positive impact on the landfill diversion rates.

The improvement in the KPI from 33 per cent in 2017–18 to 40 per cent in 2018–19 reflects an increase in reported recovery of about 60 000 tonnes and reduced landfill of almost 40 000 tonnes.

7 Percentage of commercial and industrial waste reported as diverted from landfill through recycling compared to the statewide waste strategy target

The indicator is a direct measure of the effectiveness of the government's waste management goal of diverting waste from landfill and reflects the target in the waste strategy.

Due to significant time required to gather the relevant information, 2017–18 data, as reported in *Recycling activity in Western Australia 2017–18*, was used to calculate this indicator for 2018–19, the same basis used in prior year.



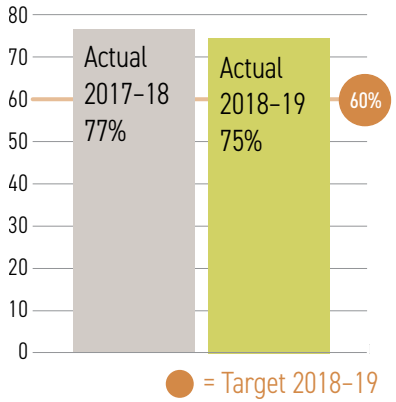
► Variance analysis

Increases in the waste levy rate since 2015 have increased the cost of landfilling but led to a more limited response from the industry than expected. The commercial and industrial (C&I) waste recovery rate has remained largely unchanged over the past three years. Although organic waste already represents a significant proportion of recovered materials from the C&I stream, there are likely to be significant opportunities to improve performance against this target with increased recovery of this material type.

8 Percentage of construction and demolition waste reported as diverted from landfill through recycling compared to the statewide waste strategy target

The indicator is a direct measure of the effectiveness of the government's waste management goal of diverting waste from landfill and reflects the target in the waste strategy.

Due to significant time required to gather the relevant information, 2017–18 data, as reported in *Recycling Activity in Western Australia 2017–18*, was used to calculate this indicator for 2018–19, the same basis used in prior year.



► Variance analysis

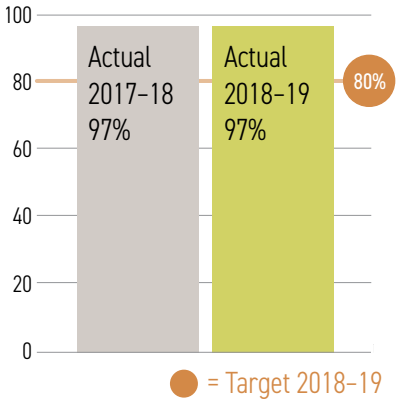
The variance between the 2018–19 Target and the 2018–19 Actual is primarily due to a decrease in the total amount of construction and demolition (C&D) waste reported as being disposed of to landfill rather than an increase in the amount recycled. Scheduled increases in the waste levy since 2015 have made C&D waste landfilling more cost prohibitive. Furthermore, it is likely that industry has engaged in more stockpiling of C&D waste in lieu of disposal which has contributed to the decrease in the quantity of C&D disposed of to landfill, thus increasing the overall diversion rate.

5

Outcome 5
Quality advice to the Environmental Protection Authority (EPA) and Minister for Environment (the Minister) on significant proposals and environmental issues

9 The Environmental Protection Authority's satisfaction with the department's environmental impact assessment (EIA) service, during the year, in line with best practice principles of EIA

The indicator is determined through surveys of the EPA members (service recipients) who rate the quality of each service against best practice principles (currently, the International Association for Impact Assessment's principles of EIA best practice).

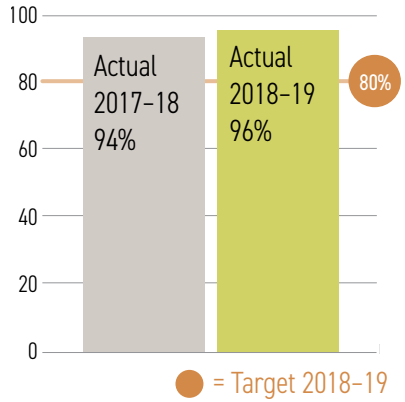


► Variance analysis

The department strives to ensure that all advice provided to the EPA is as practical, efficient, rigorous, participative and fit for purpose as possible. In line with this goal, this year the EPA considered the EIA services provided by the department were of a very high standard, which resulted in the KPI being exceeded by more than 10 per cent.

10 Percentage of project-specific conditions which did not require significant change following the appeal process

The indicator assists stakeholders in ascertaining the quality of conditions recommended by the department's EIA services. The department provides periodic reports to the EPA outlining the results of the appeals process and drawing attention to significant changes to the recommended conditions. This provides an important part of the government's expectation of a 'continuous improvement loop' in the appeals process.



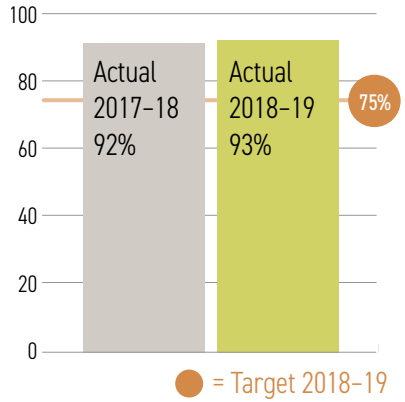
A significant change can be deemed as a substantial change to the form of a condition, the deletion or addition of a new condition, a substantial change to the outcome or objective specified in a condition. A substantial change to the specified requirements of an environmental management plan or environmental monitoring plan and a change to a prescribed action are determined on a case-by-case basis.

► Variance analysis

The department strives to ensure the conditions recommended to the EPA are as robust and comprehensive as the project requires and therefore does not require substantial change by the Office of the Appeals Convenor. In line with this goal, this year the department's recommended conditions required minimal substantial changes and therefore exceeded the KPI by more than 10 per cent.

11 Percentage of assessments that met agreed timelines

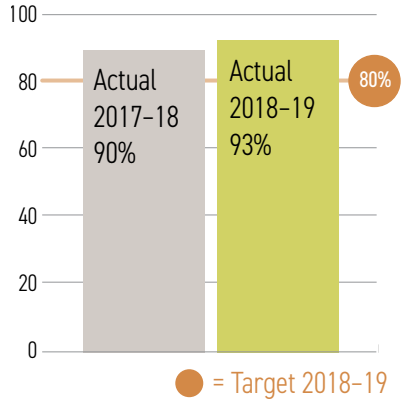
The agreed timeline is stated in the EPA's report and recommendations and refers to the time between the endorsement of the final assessment document and the release of the report and recommendations. The timeline for an assessment may vary according to the complexity of the project and is usually agreed with the proponent soon after the level of assessment is determined.



► Variance analysis

The department strives to ensure that assessments are completed in a timely manner and within the timelines published in EPA guidelines. In line with this goal, this year the department exceeded the KPI by more than 10 per cent.

12 The EPA's satisfaction with the department's provision of environmental management services during the year



The level of quality is determined by the EPA with reference to the desirable underlying qualities of good environmental management advice. The EPA rates the quality of advice on strategic advice, statutory policies or guidelines provided by the department.

Each of the EPA members who participate in a decision rates the product on a scale of one to five (poor to excellent) and the scores of each member are averaged, combined and proportionally adjusted to a percentage. The final indicator is the average rating awarded to all environmental management services endorsed by the EPA during the period.

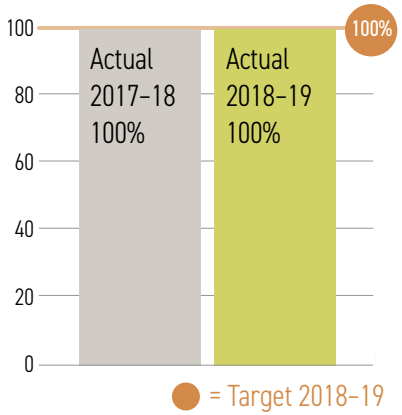
► Variance analysis

The department strives to ensure that all environmental management services provided to the EPA have a clear purpose, are rigorous, readable, applicable and consistent and informed by stakeholder input as possible. In line with this goal, this year the EPA considered the EIA services provided by the department were of a very high standard, which resulted in the KPI being exceeded by more than 10 per cent.

6

Outcome 6
Compliance with Ministerial Statement implementation conditions are monitored effectively

13 The number of Ministerial Statements audited compared to targets



Compliance monitoring is managed through a structured annual compliance management program. The annual program sets out the number of audits to be undertaken and using a priority matrix, identifies the Ministerial Statements to be audited.

The Minister imposes conditions on proposals in order to ensure that they are managed in an environmentally acceptable manner.

Key efficiency indicators

List of indicators

Services	Key efficiency indicators	Page
1	Proportion of statutory referrals from decision-making authorities where advice is provided within target timeframes	171
	Average cost per statutory referral assessment	172
	Average cost per water measurement site managed	172
2	Average cost per plan, report or guidance document to support water planning, allocation and optimisation	173
	Average cost per hour of scientific support for water planning, allocation and optimisation	174
3	Average cost of assessing a water licence application by risk assessment category	175
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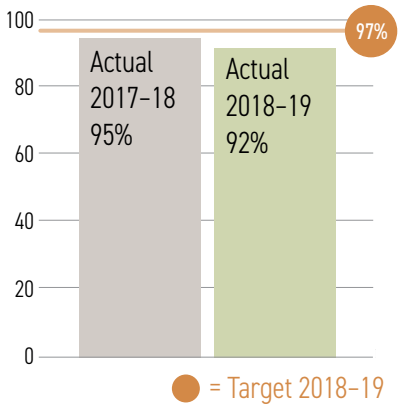
7	Cost per standardised unit of assessment output	183
8	Cost per standardised unit of environmental management services output	184
9	Average cost per environmental audit completed	185

Service 1
Water information and advice

The department enables investment decisions of regional and state significance through the provision of data and information on the quantity, quality, location of, and demand for, water across the state. The information also underpins policy advice for consideration by government and supports other government agencies and stakeholders in their planning for future economic growth and urban and rural development.

Proportion of statutory referrals from decision-making authorities where advice is provided within target timeframes



Technically proficient, reliable and timely advice on the state's water resources enables effective decision making by decision-making authorities (DMAs) that directly supports growth, development and investment for the long-term benefit of the state. Decision-making authorities include the departments of Water and Environmental Regulation; Planning, Lands and Heritage; Mines, Industry Regulation and Safety; and Local Government, Sports and Cultural Industries. This includes advice about water availability; the avoidance, management and mitigation of impacts on water resources; and the protection of public drinking water sources.

This indicator represents a measure of the department's timeliness with respect to the provision of advice on various statutory referrals from DMAs. It demonstrates the efficiency with which the department is meeting statutory timeframes in providing water information and advice.

A statutory referral is a formal request for water advice from a DMA that has a statutory timeframe associated with the provision of that water advice. This indicator is calculated as a percentage of the total number of statutory referrals from DMAs to the department for advice that met the 35 business day timeframe within the period.

Average cost per statutory referral assessment

This measure provides information on the amount of operational expenditure being used for statutory referrals that enable decisions on proposals that support the state's growth and development.

Actual 2017–18 $	Target 2018–19 $	Actual 2018–19 $
13 072	11 912	11 442

The indicator is relevant to the service because it is a directly attributable operational cost incurred in service delivery to meet the desired outcome.

An assessment is generated from both a formal request for water advice from a DMA or a proponent such as under the Better Urban Water Management Framework. The indicator is calculated using the total cost of the water information and advice service divided by the total number of assessments conducted within the period.

► Variance analysis

The reduction in the Actuals for 2018–19 from the 2017–18 Actuals was driven by an increase in the volume of statutory referral assessments and a reduction in the total costs allocated to this indicator in 2018–19, relative to 2017–18

Average cost per water measurement site managed

Access to reliable and current information about water resources – quantity and quality – is a core input to decision making by government and water-dependent businesses that enables growth and development of the state.

Actual 2017–18 $	Target 2018–19 $	Actual 2018–19 $
8754	7085	7118

Stakeholders access water information and data to support investment and business decisions. It also supports accurate water resource management decisions and advice. To service this need, the department measures or holds water data for over 116 000 groundwater and surface water field sites, verifies and stores the data and makes it available as water information. Regular or periodic field measurements are essential to maintain up-to-date data, and verification, storage and accessibility are essential to make data available as reliable information.

This indicator is calculated by dividing the annual cost of water measurement and water information functions by the number of active sites.

► Variance analysis

The reduction in the Actuals for 2018–19 from the 2017–18 Actuals resulted from improved efficiency. This resulted in a reduction in the total cost for measurement sites managed with the volume of sites managed remaining relatively consistent.

Service 2
Water planning, allocation and optimisation

The department undertakes and facilitates water planning, allocation and optimisation to ensure the sustainable management of water resources for the long-term benefit of the state relies on good science. This includes planning and allocating water for sustainable productive use, protecting public drinking water sources, and ensuring the sustainability of water resources and their dependent ecosystems.

Average cost per plan, report or guidance document to support water planning, allocation and optimisation

Actual 2017–18 $	Target 2018–19 $	Actual 2018–19 $
417 794	334 511	431 338

Water resources need to be sustainably managed to achieve sufficient water quantity and quality for current and future needs. Increasingly precise, systematic and transparent management is predicated by science-based water allocation and optimisation plans, reports and guidance documents. They guide and define management decisions to meet demand and avoid, mitigate or minimise unsustainable impacts on resources. With this in place, sufficient good quality surface and groundwater will remain an ongoing part of future water supply for economic and population growth and the liveability of towns and cities.

Average cost is calculated by dividing the cost of the services by the total number of the following types of documents or advice produced:

1. Plans
   - Water allocation plan
   - Drinking water source protection plan
   - Statement of response to public submissions
2. Plans for public comment:
   - Water allocation plan for public comment
   - Water source protection plan for public comment

3. Technical reports
   - Drinking water source protection area assessments
   - Environmental water requirements reports
   - Allocation limits methods report
4. Guidance documents
   - Water quality protection notes and information sheets
   - Local water licensing strategy
5. Status reports including:
   - Annual or tri-annual compliance Jandakot and Gnangara compliance reports
   - Water allocation plan evaluations
   - Drinking water source protection reviews
   - Statewide planning reports (e.g. water resources inventory)
   - Pre-planning or implementation phase status reports
   - Communication products (or sets of communication products)

► Variance analysis

The variance between the 2018–19 Target and the 2018–19 Actual is greater than expected due to fewer documents or advice being delivered than the predicted target. This is due to the reprioritisation of senior staff onto priority projects, increasing the cost per document or advice.

Average cost per hour of scientific support for water planning, allocation and optimisation

Actual 2017–18 $	Target 2018–19 $	Actual 2018–19 $
196	194	145

The sustainable management of water resources for the long-term benefit of the state relies on quality and contemporary water science. The indicator will enable judgement about the efficient application of the department's science capacity.

This indicator shows the average cost of providing scientific support for the achievement of water planning, allocation and optimisation outcomes.

This indicator is calculated by dividing annual cost of FTE and operational expenses by total hours worked by employees directly supporting scientific outcomes for this service.

► Variance analysis

The variance between the 2018–19 Target and the 2018–19 Actual is largely due to an increase in the number of hours of scientific support resulting from additional projects delivered compared to the 2018–19 Target.

The reduction in the Actuals for 2018–19 compared with Actuals for 2017–18 was driven by improved efficiency that resulted in a reduction in the total cost for scientific support for water planning, allocation and optimisation despite an increase in the numbers of hours of scientific support for additional projects delivered.

Service 3
Water regulation, licensing and industry governance

Responsible, proportional regulation ensures investment, growth and development is underpinned by sustainable management of the state's water resources for the long-term benefit of the state. This service includes the management of water licensing. It also includes the management of the legislation governing the operations of water service providers.

Average cost of assessing a water licence application by risk assessment category

Risk assessment category	Actual Restated 2017–18 $	Target 2018–19 $	Actual 2018–19 $
Low	3400	2236	3788
Medium	4534	7604	5051
High	5667	15 655	6313

Water licences or access entitlements are a fundamental asset for giving confidence in investment decisions. Responsible, proportional regulation gives confidence that Western Australia's water resources are being sustainably managed for the long-term benefit of the state. The average cost by risk category enables judgement about the efficiency of water licence assessments by risk category.

Licensing is the main tool for sharing and allocating the state's water resources. A water licence grants a licensee an entitlement to an allocation of a particular water resource and is the regulatory tool to ensure efficient and sustainable productive use of available water.

The indicator is calculated by using the departmental cost of the water licensing service divided by the number of licence and permit applications assessed by risk category within the period.

The 2017–18 audited figures were previously reported as $1 071 (Low Risk), $14 297 (Medium Risk) and $28 762 (High Risk). 2017–18 Actual costs

have been restated in order to reflect the same calculation methodology that was used in the current year.

► Variance analysis

The variance between the 2018–19 Target costs and the 2018–19 Actual costs reflects an overall increase in the total number of water licence application assessments completed in 2018–19 relative to the budgeted volumes, a significant shift in the distribution of the completed assessments across the three risk categories – which prompted a recalibration of the actual cost calculation methodology (revised cost ratios applied), and a reduction in the total costs allocated to this indicator in 2018–19 relative to the budgeted costs.

The slight variance in Actuals from 2017–18 to Actuals in 2018–19 is driven by an increase in the total costs allocated to this indicator in 2018–19 relative to the 2017–18 cost allocation.

Average time taken (days) to assess a licence application by risk assessment category

Investment decisions by licensees, existing and prospective, are time-bound and require that applications for access to water are dealt with by the department in a timely manner. Water licences are one of the fundamental assets that support investment decisions.

Risk assessment category	Actual 2017–18 (days)	Target 2018–19 (days)	Actual 2018–19 (days)
Low	73	65	57
Medium	134	75	133
High	158	95	213

The department ensures that the level of assessment applied to an application is consistent with the risk posed should a licence be granted.

The indicator enables judgement about the department's efficiency in decision-making about licence applications within this risk-based framework.

Licensing is the main tool for sharing and allocating the state's water resources. A water licence grants a licensee an entitlement to an allocation of a particular water resource. Licensing application assessment times will vary according to the category level of the licence being processed. Higher risk licence applications are generally more complex and require more time to administer.

This indicator shows the average time taken to assess a licence or permit application by risk category grouping. The indicator includes applications for permits to interfere with bed and banks, licences to construct a well, licences to access water, and renewal of and amendments to existing licences to access water, trades, transfers and agreements.

Risk categories for licence or permit applications guide the level of assessment that is carried out by the department based on the risk should a licence or permit be granted. Risk categories are defined as low, medium or high. Primary factors considered when assigning an assessment risk category are the volume of water being requested, how much water is available in the resource where the water is being requested and potential impact of the proposed water use on other water users and/or the environment, including cumulative impacts.

The indicator is calculated using the total time taken to assess all licence and permit applications within each risk category completed within the period. The measurement of time includes 'stop the clock'.

'Stop the clock' means the time measure excludes the time taken by processes outside of the department's control. When an application process is outside of the department's control, the time taken during this process is not included when calculating assessment times. The 'clock is stopped' in these instances.

► Variance analysis

The variance between the 2018–19 Target and the 2018–19 Actual results in the medium and high-risk categories is a reflection of the new risk assignment methodology embedded within the COMPASS system (which more accurately reflects the actual risk of each application and the associated application assessment effort).

Further, the target figures did not account for some significant outliers within these risk categories that upwardly skew the 2018–19 Actual figures. Removing the top 5 per cent of assessment durations within each risk category significantly reduces the average time taken to complete assessments to 49 days (8 day reduction) for low risk category, 114 days (19 day reduction) for medium-risk category and 186 days (27 days reduction) for high risk category.

The variation in average time taken to assess a licence application by risk category from 2017–18 Actuals to 2018–19 Actuals is mainly due to the clearing of long standing high risk applications under an application backlog reduction initiative, which has upwardly skewed the average processing duration for high risk applications, and the fast-tracking of a greater proportion of low risk applications, which has downwardly skewed the average processing duration for low risk applications.

Average cost of compliance monitoring and enforcement action

Actual 2017–18 $	Target 2018–19 $	Actual 2018–19 $
743	413	608

The department relies on water usage information for accurate water resource management advice and decisions. The department's compliance monitoring of licensed use provides accurate information on actual licensed water use to ensure the sustainable management of water resources for the long-term benefit of the state.

The department undertakes compliance monitoring and, where appropriate, enforcement action when licensed water use is found to be not in accordance with terms, restrictions and conditions. Compliance monitoring within a risk-based framework ensures the department fulfils its legislative requirements, while ensuring efficient and sustainable productive water use.

Investment decisions by licensees, existing and prospective, are time-bound and require that applications for access to water are dealt with by the department in a timely manner. Water licences are one of the fundamental assets that support investment decisions.

This indicator is calculated using the departmental cost of compliance and enforcement activities divided by the number of compliance and enforcement actions undertaken by the department during the year.

The enforcement actions include the following activities undertaken by the department when licensed water use is found inconsistent with the licensing terms, restrictions and conditions:

- incidents of suspected non-compliance identified
- educational letter
- licence amendment
- warnings, infringements or direction notice
- prosecutions.

► Variance analysis

The significant increase in average cost of compliance monitoring and enforcement action for 2018–19 Actual from the 2018–19 Target reflects a more accurate view of the operational activities and costs supporting compliance monitoring and enforcement action. This is relative to the budgeted costs following the internal restructure of the directorate activities delivering and supporting water regulation, licensing and industry governance.

The improvements in the 2018–19 Actuals over 2017–18 Actuals is primarily driven by a significant increase in the compliance monitoring and enforcement actions taken during 2018–19.

Service 4
Environmental regulation

The department seeks to prevent, control and abate activities with the potential to cause pollution or environmental harm. It has adopted a risk-based approach to delivering its regulatory role, which broadly fits into three main functions:

1. approvals and licensing
2. monitoring, audit and compliance inspections
3. enforcement, including complaint and incident investigation.

Average cost per works approval and licence application, Average cost per native vegetation clearing permit application

	Actual 2017–18 (days)	Target 2018–19 (days)	Actual 2018–19 (days)
Average cost per works approval and licence application	55 962	68 503	57 821
Average cost per native vegetation clearing permit application	34 405	28 428	29 865

These measures of efficiency were established to reflect the costs per regulatory action for an instrument for the department's Industry Regulation and Clearing Regulation functions. These are considered relevant efficiency indicators as:

- they capture the primary regulatory functions of the department
- they measure the amount of resources required to assess and determine an industry regulation instrument and clearing regulation instrument
- they are of interest to parties paying regulatory fees
- they are relevant to the review and determination of the department's regulatory fees and charges.

The indicators are considered relevant to the service as they can track the efficiency of the assessment of regulatory instruments over time and provide a simple metric for users of the department's budget statements and annual report.

The indicator is calculated by dividing the total group costs deemed relevant to the agency activity of carrying out and administering the function of works approvals and licences – being applications assessment and decision-making on works approval and licence applications under Part V Division 3 of the *Environmental Protection Act 1986* by the number of work approvals, licences, licence renewals and amendments assessed to provide the average cost.

► Variance analysis

The reduction in average cost per works approval and licence application between the 2018–19 Target and the 2018–19 Actual is due to an eight per cent increase in the number of Works Approval and Licence Applications completed, further complemented by an eight per cent reduction in the total cost base supporting this Service.

The decrease in average cost per Native Vegetation Clearing Permit Application between 2018–19 and 2017–18 was primarily driven by a reduction in the total cost base resulting from business efficiencies.

Service 5
Environmental policy

Develop and implement policies and strategies that promote environmental outcomes.

Average cost per hour of policy advice and recommendations

Actual 2017–18 $	Target 2018–19 $	Actual 2018–19 $
89	114	84

This measure of efficiency was established to reflect the cost per hour of policy advice. This is considered a relevant efficiency indicator as:

- it captures a significant function of the department
- it measures the amount of resources required to develop and implement policies and strategies
- it is of interest as it shows the cost of policy development
- it is relevant to the use of funds being expended to develop and implement strategic policy and legislation that promotes sustainable environmental outcomes.

The indicator is relevant to this service as it can track the efficiency of the policy development and implementation over time and provide a simple metric for users of the department's budget statements and annual report.

The indicator is calculated by totalling the functional group costs associated with agency activity of carrying out and administering the function of providing policy advice and recommendations. The advice and recommendations mainly relate to the development, review and amendment of environmental policy, national policy, primary and subsidiary legislation, and environmental programs, providing advice to the Minister and the government in relation to legislation administration. The total number of available FTE hours for the services are divided into the costs to provide an average cost per hour of policy advice and recommendations.

► Variance analysis

The significant decrease in average cost per hour of policy advice and recommendations between the 2018–19 Target and 2018–19 Actual is due to allocation methodology changes and a lack of precision on the allocation of particular policy staff to the service across budget years.

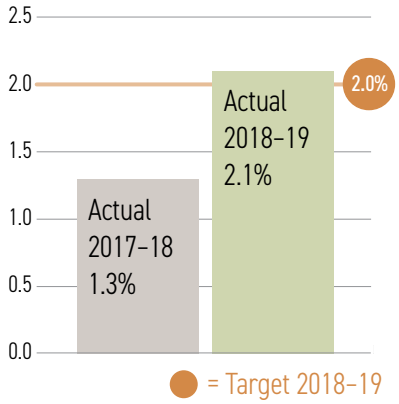
Service 6
Waste Strategies

Waste avoided and the recovery of materials from landfill maximised.

Cost of landfill levy compliance as a percentage of landfill levy income collected

This measure of efficiency was established to reflect the cost of levy compliance as a percentage of the landfill levy income collected. This is considered a relevant efficiency indicator as:

- it measures the amount of resources applied to the waste avoidance strategies and landfill diversion strategies
- it is of interest as it shows the cost of managing the waste strategies
- it is relevant to the use of funds being expended to develop and implement strategic policy and legislation that promotes sustainable environmental outcomes.



The indicator is relevant to the service as it can track the efficiency of managing the waste strategies, and provides a simple metric for users of the department's budget statements and annual report.

The cost of landfill levy compliance as a percentage of landfill levy income collected is determined by totalling those functional group costs deemed relevant to the department's activity of carrying out and administering the function of providing landfill levy compliance – being the administration of the landfill levy returns, auditing of those returns, processing of exemptions and undertaking inspections at a range of waste facilities and carrying out unauthorised waste activity investigations. The indicator is calculated by dividing the cost of levy compliance by the amount of landfill levy income collected for the year.

► Variance analysis

The increase in the KPI from 1.3 per cent in 2017–18 to 2.1 per cent in 2018–19 is primarily driven by an increase in the cost of landfill compliance due to internal business restructure that led to an increase in the cost centres allocated to the cost base for this KPI.

Service 7
Environmental impact assessment services to the EPA

Conduct, for the EPA, environmental impact assessments of significant proposals and schemes.

Cost per standardised unit of assessment output

Actual 2017–18 $	Target 2018–19 $	Actual 2018–19 $
34 681	31 467	33 082

While the variation in assessment complexity is reflected in the level of assessment set, a number of other factors affect how complex a proposal is to assess. To account for this range in difficulty, each assessment completed is assigned a weighting.

The difficulty often influences the amount of time spent dealing with a proposal, how the complexity weightings were allocated and trialled, in consultation with experienced officers, according to inherent proposal characteristics that cause a proposal to be more difficult rather than what causes an assessment to take more time to complete. This ensures that the indicator measures the efficiency of the department's provision of EIA advice to the EPA rather than the department's cost per hour. The total complexity is calculated by summing the individual complexities allocated to each assessment according to their inherent characteristics.

The cost per standardised unit of assessment output is calculated by dividing the total cost of assessments (including an allocation of post approval costs and a portion of costs for policy and administrative support) by the total complexity weighting of assessments completed during the financial year.

Service 8
Environmental management services to the EPA

Develop, for the EPA, statutory policies, guidelines and strategic advice to manage environmental impacts and protect the environment.

Cost per standardised unit of environmental management services output

Actual 2017–18 $	Target 2018–19 $	Actual 2018–19 $
31 377	39 577	21 049

Due to the variation in complexity of environmental management services provided, an average cost per piece of advice provided would not fairly represent the department's efficiency in providing such advice to the EPA. In fact, such a measure could provide a perverse incentive to produce many straightforward pieces of advice rather than tackling more complex issues that are more difficult to investigate. To account for this range in difficulty, each assessment completed is assigned a weighting.

The difficulty often influences the amount of time spent investigating a matter, how the complexity weightings were allocated, in consultation with experienced officers, according to inherent characteristics that cause a piece of environmental management advice to be more difficult rather than what causes it to take more time to complete. This ensures that the indicator measures the efficiency of the department's provision of environmental management advice to the EPA rather than the department's cost per hour.

The cost per standardised unit of environmental management services output is calculated by dividing the total cost of environmental management services (including an allocation of administrative support) by the total complexity weighting of environmental management services endorsed during the period.

► Variance analysis

Strategic advice and support for environmental management services to the EPA is provided by a dedicated EPA services directorate within the department with support from other functions of the department for specialist environmental services. The cost per standardised unit of environmental management services output is lower than the target for 2018–19 and 2017–18 Actual due to more technical support provided by the Science and Planning and the Strategic Policy functions from within the department than previously predicted. This enabled the delivery of highly cost effective environmental management outputs in comparison to the 2018–19 Target.

Service 9
Compliance monitoring services to the Minister

Audit the compliance with conditions set under Ministerial approvals and undertake enforcement action as appropriate.

Average cost per environmental audit completed

The indicator is calculated by dividing the total cost (including an allocation of administrative overheads) allocated to compliance monitoring services by the total number of audits (not including desktop scans) completed during the period.

Actual 2017–18 $	Target 2018–19 $	Actual 2018–19 $
18 069	35 207	31 719

► Variance analysis

Compliance Monitoring Services to the Minister for Environment are provided by a dedicated Compliance and Enforcement Directorate within the department with support from other functions of the department. The movement in Actuals from 2017–18 to Actuals in 2018–19 is primarily driven by improved costing of the levels of support for this service from across the agency, than previously predicted.

Ministerial directives

There were no Ministerial directives in 2018–19.

Other financial disclosures

Pricing policies of services provided

The department provided technical services to the Indian Ocean Territories of Christmas and the Cocos (Keeling) Islands through service delivery agreements with the Commonwealth. These services differentiate between water services and environmental services.

The water services are related to policy advice as well as planning, assessment, allocation and protection of groundwater resources. The environmental services are related to environmental regulation, environmental policy, waste policy and programs, and response to pollution incidents.

Services are provided on a cost-recovery basis which includes the incurred salary and operational costs plus on-costs calculated at the rate specified by the Department of Infrastructure, Transport, Cities and Regional Development.

Capital works

The department's capital works consisted of asset replacement programs and new projects.

The ongoing asset replacement program includes installing, replacing and upgrading water modelling, groundwater monitoring bores and river gauging stations throughout the state and an asset replacement program associated with computer hardware and office equipment.

New projects in 2018–19 included further investment in the groundwater investigation and bore monitoring programs across the state.

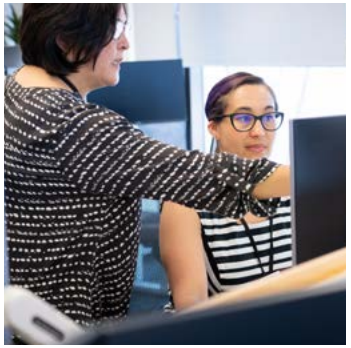
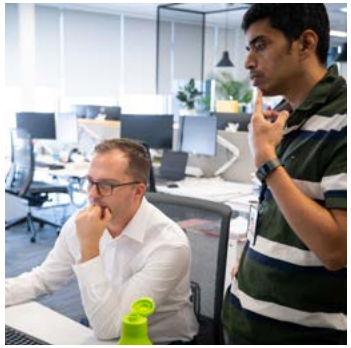
Governance disclosures

Executive recruitment

Seven executive recruitments occurred during the fiscal year.

Government building contracts

No contracts subject to the *Government building training policy* were awarded in 2018–19.

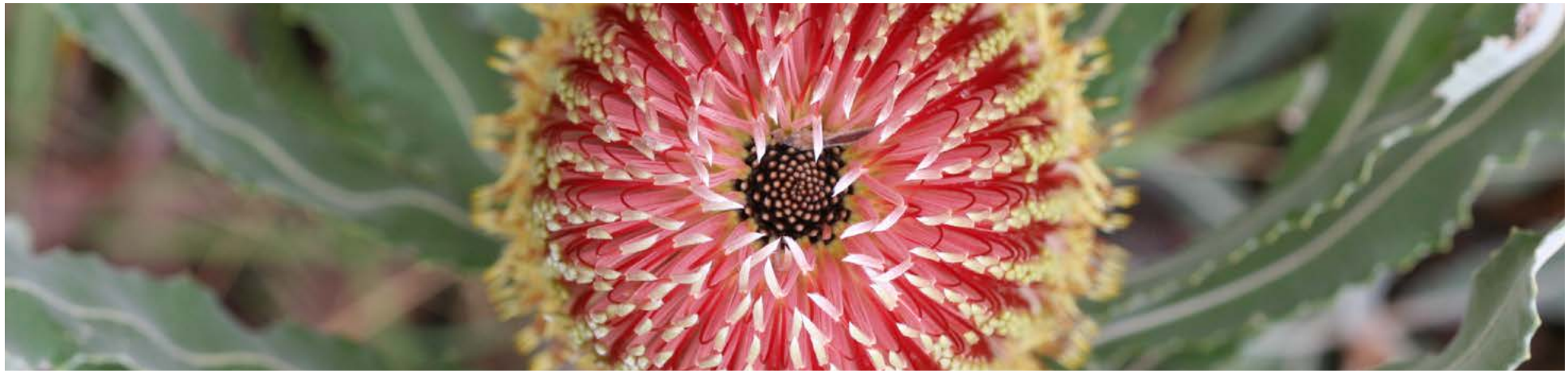
Boards and committee remuneration

All remuneration paid by the Department of Water and Environmental Regulation during 2018–19 to positions on boards and committees is summarised in the table below.

Board name	Position	Member name	Type of remuneration	Period of membership	Gross/actual remuneration ($)
Carnarvon Water Allocation Advisory Committee	Member	Lesley George	Sitting fee	01/07/18 – 30/06/19	Nil
	Member	Terence Fitzgerald	Sitting fee	01/07/18 – 30/06/19	Nil
	Member	Domenico Condo	Sitting fee	01/07/18 – 30/06/19	Nil
	Member	Christopher Boston	Sitting fee	01/07/18 – 30/06/19	Nil
	Member	Edward Smith	Sitting fee	01/07/18 – 30/06/19	Nil
	Member	Kim Nguyen	Sitting fee	01/07/18 – 30/06/19	Nil
	Member	Danny Latimer	Not eligible for remuneration	01/07/18 – 30/06/19	Nil
Geographe Catchment Council	Member	Nikolaus Sellheim	Sitting fee	01/07/18 – 30/06/19	1 056
	Member	Julie Howes	Sitting fee	01/07/18 – 30/06/19	1 056
	Member	Geoffery Oddy	Sitting fee	01/07/18 – 30/06/19	352
	Member	David Kemp	Sitting fee	01/07/18 – 30/06/19	352
	Member	Jeffry Falconer	Sitting fee	01/07/18 – 30/06/19	1 056
	Member	Coralie Tarbotton	Sitting fee	01/07/18 – 30/06/19	352
	Member	Joanne Hoyes	Sitting fee	01/07/18 – 30/06/19	1 056
	Chair	Christopher Adams	Annual	01/07/18 – 30/06/19	3 067
	Member	William Hosken	Sitting fee	01/07/18 – 30/06/19	Nil
	Member	Brian Hearne	Sitting fee	01/07/18 – 30/06/19	1 232
	Member	Felicity Bradshaw	Sitting fee	01/07/18 – 30/06/19	8 227

Board name	Position	Member name	Type of remuneration	Period of membership	Gross/actual remuneration ($)
Warren Donnelly Water Advisory Committee	Member DPIRD	Peta Richards	Not eligible for remuneration	Term at discretion of organisation	Nil
	Member	Cliff Winfield	Sitting fee	01/07/18 – 30/06/19	Nil
	Member	Bob Pessotto		01/07/18 – 30/06/19	Nil
	Member	Dianne Fry	Sitting fee	01/07/18 – 30/06/19	Nil
	Member	John Omodei	Sitting fee	01/07/18 – 30/06/19	Nil
	Member, Shire rep	Paul Omodei		01/07/18 – 30/06/19	Nil
	Member	Travis Luzney	Sitting fee	01/07/18 – 30/06/19	Nil
	Member	Bill Rice	Sitting fee	01/07/18 – 30/06/19	Nil
	Member, WCC	Julian Sharp	Term at discretion of organisation	01/07/18 – 30/06/19	Nil
Environmental Protection Authority	Chair	Dr Tom Hatton	Annual	01/07/18 – 30/06/19	303 178
	Deputy Chair	Robert Harvey	Annual	01/07/18 – 30/06/19	85 445
	Member	Elizabeth Carr	Annual	01/07/18 – 30/06/19	42 723
	Member	Glen McLeod	Annual	01/07/18 – 30/06/19	42 459
	Member	Jennifer Pope	Sitting fee	01/07/18 – 30/06/19	27 770
	Member	Jim Limerick	Annual	01/07/18 – 30/06/19	15 528
Waste Authority Committee	Chair	Marcus Geisler	Annual	01/07/18 – 30/06/19	40 609
	Deputy Chair	Jenny Bloom	Annual	01/07/18 – 30/06/19	25 238
	Member	Neil Foley	Sitting fee	01/07/18 – 30/06/19	20 203
	Member	Victoria Bond	Sitting fee	01/07/18 – 30/06/19	20 203
	Member	Glen McLeod	Sitting fee	01/07/18 – 30/06/19	20 360

Board name	Position	Member name	Type of remuneration	Period of membership	Gross/actual remuneration ($)
Contaminated Sites Committee	Chair	Jim Malcolm	Annual	01/07/18 – 30/06/19	70 956
	Member	Warren Dodge	Sitting fee	01/07/18 – 30/06/19	9 471
	Member	Anthony Jarvis	Sitting fee	01/07/18 – 30/06/19	6 573
	Member	Michael Hardy	Sitting fee	01/07/18 – 30/06/19	7 287
	Member	Jeremy Hogben	Sitting fee	01/07/18 – 30/06/19	5 082
	Chair	Kateryna Longley	Sitting fee	01/07/18 – 30/06/19	24 521
Keep Australia Beautiful Council	Member	Michael Aspinall	Annual	01/07/18 – 30/06/19	12 958
Geographe Catchment Council	Member	Robin Belford	Sitting fee	01/07/18 – 30/06/19	704
	Member	Janet Mannolini	Sitting fee	01/07/18 – 30/06/19	528
	Member	Andrew Weinert	Sitting fee	01/07/18 – 30/06/19	528
Total					**800 130**



Other legal requirements

Expenditure on advertising, market research, polling and direct mail

In accordance with section 175ZE of the *Electoral Act 1907*, the department incurred the following expenditure in advertising, market research, polling, direct mail and media advertising. Total expenditure for 2018–19 was $247 917.71 (excluding GST).

Expenditure was incurred in the following areas:

Expenditure	Total	Expenditure paid to	Amount
Advertising agencies	$3813.69	AdCorp Australia	$3813.69
Market research orgn's	Nil		Nil
Polling organisations	Nil		Nil
Direct mail organisation	Nil		Nil
Media advertising organisations	$311 288.08	AdCorp Australia	$29 977.99
		Metropolitan WA	$15 201.62
		Facebook	$795.32
		Optimum Media	$35 381.73
		Initiative Media Australia	$179 385.36
		Carat Australia Media Services	$70 524.14
		Independent & general media	$9999.91
Total			**$341 266.07**

Disability access and inclusion plan

In line with our value, 'Better together', we recognise that people with a disability, their families and carers have the same rights as other members of the community to access employment and services, information and facilities, and to participate in community consultation.

In support of its commitment to improved disability access and inclusion, our Equity and Diversity Panel has championed a number of initiatives under the department's five-year *Disability access and inclusion plan*.

Critical to the plan, a diversity mission statement was approved by our Corporate Executive to embed diversity and inclusion in all that we do: 'Every day we support and inspire each other to be our whole selves and best selves to thrive and reach our full potential. We celebrate, acknowledge, respect and embrace differences because we know that when people from different backgrounds and with different points of view work together, we create the most value and reflect the community we serve.'

During 2018–19, we progressed the following initiatives:

- Developed a detailed equity and diversity plan for the next three years to foster real change for key focus groups including people with disabilities and neuro-diverse employees.
- Ensured accessibility requirements for our new leased offices at Prime House, Joondalup. This included a post-move review of accessibility, recorded voice announcements in lifts, push button entry and nearly universal access ambulant toilets to improve accessibility.
- Reviewed recruitment processes, policies, internal and external websites, forms and documents as part of gaining accreditation as a Disability Confident Recruiter through the Australian Network on Disability.
- Delivered 'Unconscious Bias' training to managers.
- Delivered presentations to employees by guest speakers with disabilities to increase awareness through storytelling.

- Endorsed a draft employee community involvement policy to invite staff to participate in a trial volunteer activity in the disability sector as a paid work day, designed to improve awareness and understanding.
- Continued to promote and support flexible working arrangements.
- Established a 12-month traineeship program with three positions for young people with a disability.

Public sector standards and ethical codes

Eight claims of breaches of the Western Australian Public Sector Standards in Human Resources (Employment Standard) were lodged in the fiscal year. None were upheld.

Recordkeeping

We are committed to continuously improving our recordkeeping culture, tools and practices to ensure compliance with the *State Records Act 2000* and best business outcomes for the department. In line with the State Records Commission (SRC) Standard 2, Principle 6, the following information is provided.

In 2017–18, our recordkeeping plan was approved by the SRC in accordance with the State Records Act. Our *Records management policy* was approved in May 2019 and communicated to staff. Activities undertaken this year included the launch of a new online training system (Blue Print) and the development of a mandatory records awareness module for staff.

We introduced 'Business Toolbox' to help staff to create, collaborate and share documents more effectively and securely, while supporting mobility and ensuring the integrity of our information assets. Staff training in regional offices will be completed next financial year.

With the move to Joondalup completed, we continued our 'paper-lite' initiative, reducing our use of physical documents. When files are recalled from offsite storage now, they are scanned into a digital format complying with SRC Standard 8. This approach reduces impacts on the environment, improves information availability and enhances the digital workplace.

Government policy requirements

Substantive equality

We are committed to implementing substantive equality measures and strive to make our services available to all Western Australians in a form that meets individual needs.

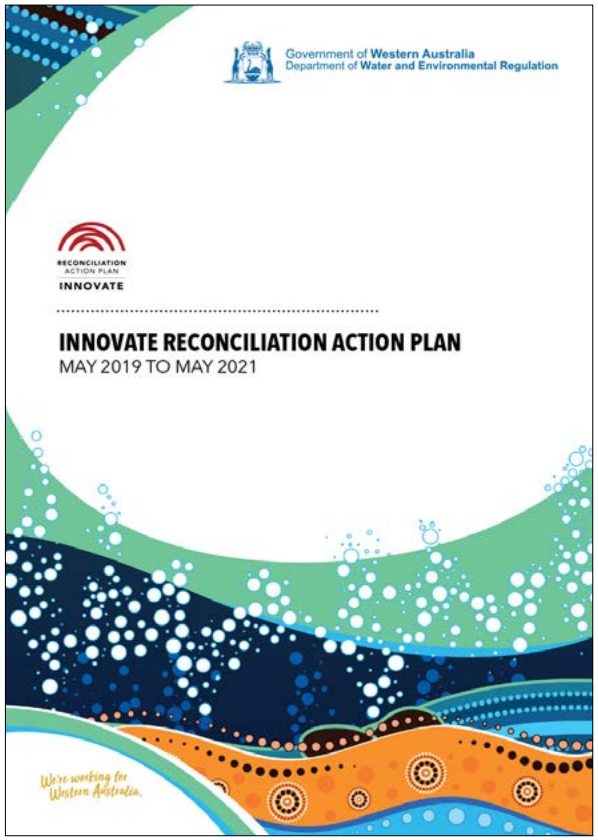
We deliver this by ensuring our processes associated with water and environmental management and planning practices are developed with input from the public and stakeholders as well as broad public invitations to comment on draft documents.

The Equity and Diversity Panel has oversight of the development and implementation of an equity framework which integrates substantive equality strategies.

Importantly, we seek to listen, learn and build strong partnerships with the traditional custodians of the land. We aim to provide genuine opportunities for Aboriginal people within our workforce and through our business.

Our first Reconciliation Action Plan was launched in May 2019 during Reconciliation Week and commits the department to continuing to build sustainable relationships with the Aboriginal community.

Our *Disability access and inclusion plan* provides the framework for universally inclusive access.



Providing safe spaces

We understand that family and domestic violence is a complex issue within our society and recognise the adverse impact it can have on our employees and therefore fully support the government's safe spaces initiative. We acknowledge there is a strong need to provide affected employees with the appropriate levels of support, as and when required.

In November 2018, we rolled out a number of initiatives as part of '16 Days in WA' to stop violence against women. These included:

- lunch-and-learn sessions on domestic violence awareness with our employment assistance program provider
- presentation to staff by Damian Green, CEO of Stopping Family Violence
- training workshops delivered by Lifeline on domestic and family violence response training for peer officers and line managers, including a tailored program at our Kununurra office
- communication campaign to staff on Safe Spaces
- promotion of our specialist employment assistance services
- encouragement of staff to wear orange to show their support
- participation in #ItsintheBag initiative run by charity organisation Share the Dignity. Staff were invited to donate a small bag filled with new toiletries to be donated to women in crisis. Around 300 bags and heartfelt notes were collected from staff.

► Occupational safety and health and injury management

We have established a three-tier occupational safety and health (OSH) consultation system that includes an OSH Steering Committee, OSH Reference Group, area committees and safety and health representatives.

These groups focus on the continuous improvement of OSH systems, processes and performance, workplace safety, and risk and hazard awareness.

The OSH committees, including employee representatives, are integral to effective OSH consultation within the agency. The locations and details of the safety and health representatives are available to all staff through our intranet.

Our OSH management system was subject to an internal audit which highlighted areas for improvement that are being actioned by the OSH team and committees.

► Commitment to return employees back to work after injury

To address any workplace injuries that occur, the department has a *Workers' compensation and injury management policy* and guidelines to assist injured employees to return to work as soon as medically appropriate.

This system ensures we can intervene promptly and effectively in injury management, so injured employees can remain at work or return to work at the earliest possible time. This system and our return to work programs are compliant with the requirements of the *Workers' Compensation and Injury Management Act 1981* and have been reviewed and approved by RiskCover, the department's insurer.

► Support of safety and health representatives and increasing staff awareness of the occupational health and safety system

In late 2018, we trained six new safety and health representatives, with training conducted centrally for all representatives through a recognised provider. We require all our managers and employees to undertake annual OSH training, which is made available through our online learning system.

Our flagship OSH training program known as *OSHtober* provides an annual program of communication and awareness-raising which includes:

- Bullshift training for mental health and positive workplaces
- refresher training for OSH representatives
- training in field safety awareness for pollution response by four experienced officers from USEPA (United States Environmental Protection Agency). Australia uses USEPA as a benchmark for much of its work in environmental emergency response.

► Performance

In managing the health and safety of our people, our obligations are primarily set out under the Public Sector Commissioner's Circular: 2012–05 *Code of Practice occupational safety and health in the Western Australian public sector* and the requirements of the *Occupational Safety and Health Act 1984* and the *Workers' Compensation and Injury Management Act 1981.* The department complies with the code and the requirements of the Acts.

► Vision to Reality

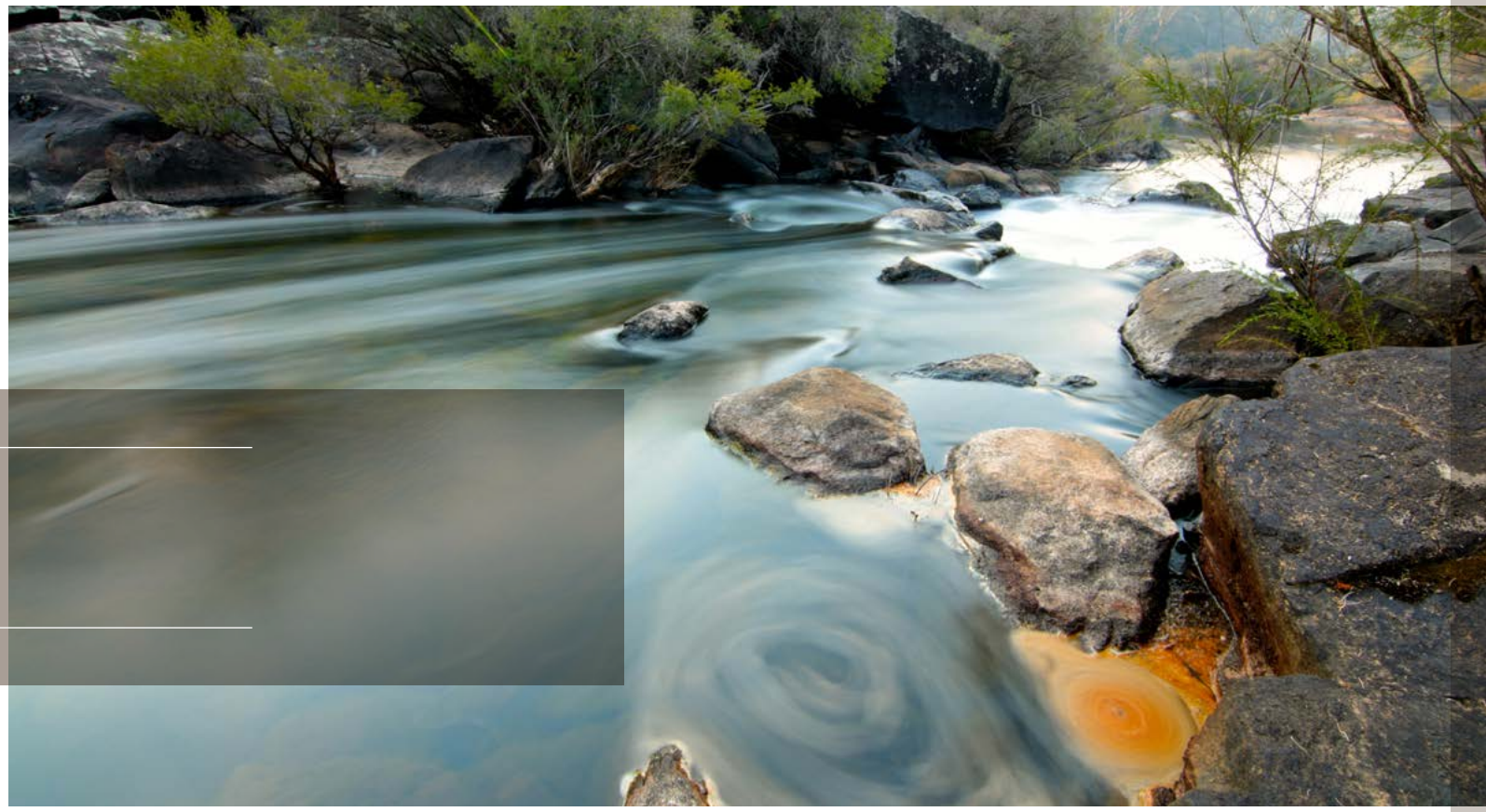
To ensure alignment with the Australian Work Health and Safety Strategy 2012–2022, we committed to developing a *Public Sector Workplace Health and Safety: Vision to Reality* plan and an accompanying CEO commitment statement. This plan details our commitment to providing a safe and healthy workplace (including targets) for all employees.

We continued to prepare for the introduction of the government's new Work Health and Safety Act, which will replace the *Occupational Safety and Health Act 1984* (WA). The new legislation will require us to take a more active role in the management of our department's work health and safety environment.

Freedom of information

In accordance with s. 10 of the *Freedom of Information Act 1992* (FOI Act), a person has a right to be given access to documents of an agency subject to and in accordance with the FOI Act. It is our commitment to make information available as soon as possible and at the least possible cost.

For the 2018–19 period, we received 298 freedom of information applications and of these, six applications progressed to an internal review and five to external review with the Office of the Information Commissioner.

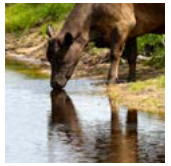


Appendices

Appendix A: Legislation

Legislation administered by the Department of Water and Environmental Regulation as at 30 June 2019

- *Carbon Rights Act 2003*
- *Contaminated Sites Act 2003*
- *Country Areas Water Supply Act 1947*
- *Environmental Protection Act 1986*
- *Environmental Protection (Landfill) Levy Act 1998*
- *Litter Act 1979* [The Department of Water and Environmental Regulation is the agency principally assisting the Minister for Environment in the administration of this Act assisted by the Keep Australia Beautiful Council (Western Australia)]
- *Metropolitan Arterial Drainage Act 1982*
- *Metropolitan Water Supply, Sewerage and Drainage Act 1909*
- *National Environmental Protection Council (Western Australia) Act 1996*
- *Plumbers Licensing Act 1995* (except part 5A which is administered by the Minister for Commerce principally assisted by the Department of Mines, Industry Regulation and Safety) – alternative citations are *Water Services Coordination Act 1995* and *Water Licensing Act 1995)*
- *Rights in Water and Irrigation Act 1914*
- *Waste Avoidance and Resource Recovery Act 2007* [The Department of Water and Environmental Regulation is the agency principally assisting the Minister for Environment in the administration of this Act assisted by the Waste Authority]
- *Waste Avoidance and Resource Recovery Levy Act 2007* [The Department of Water and Environmental Regulation is the agency principally assisting the Minister for Environment in the administration of this Act assisted by the Waste Authority]
- *Water Agencies (Powers) Act 1984*
- *Water Agencies Restructure (Transitional and Consequential Provisions) Act 1995*
- *Water Corporations Act 1995*
- *Water Efficiency Labelling and Standards Act 2006*
- *Water Resources Legislation Amendment Act2007*
- *Water Services Act 2012*
- *Water Services Coordination Act 1995*
- *Water Services Licensing Act 1995*
- *Waterways Conservation Act 1976*



Regulations administered by the Department of Water and Environmental Regulation as at 30 June 2019

- Clean Air (Determination of Air Impurities in Gases Discharged to the Atmosphere) Regulations 1983
- Contaminated Sites Regulations 2006
- Country Areas Water Supply (Clearing Licence) Regulations 1981
- Environmental Protection (Abattoirs) Regulations 2001
- Environmental Protection (Abrasive Blasting) Regulations 1998
- Environmental Protection (Clearing of Native Vegetation) Regulations 2004
- Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998
- Environmental Protection (Controlled Waste) Regulations 2004
- Environmental Protection (Fibre Reinforced Plastics) Regulations 1998
- Environmental Protection (Goldfields Residential Areas) (Sulfur Dioxide) Regulations 2003
- Environmental Protection (Kwinana) (Atmospheric Wastes) Regulations 1992
- Environmental Protection (Metal Coating) Regulations 2001
- Environmental Protection (NEPM-NPI) Regulations 1998
- Environmental Protection (NEPM-UPM) Regulations 2013
- Environmental Protection (Noise) Regulations 1997
- Environmental Protection (Packaged Fertiliser) Regulations 2010
- Environmental Protection (Petrol) Regulations 1999
- Environmental Protection (Plastic Bag) Regulations 2018
- Environmental Protection (Recovery of Vapours from the Transfer of Organic Liquids) Regulations 1995
- Environmental Protection (Rural Landfill) Regulations 2002
- Environmental Protection (Solid Fuel Burning Appliances and Firewood Supply) Regulations 1998
- Environmental Protection (Unauthorised Discharges) Regulations 2004
- Environmental Protection Regulations 1987
- Litter Regulations 1981
- Noise Abatement (Noise Labelling of Equipment) Regulations (No. 2) 1985
- Plumbers Licensing and Plumbing Standards Regulations 2000
- Rights in Water and Irrigation Regulations 2000

- Waste Avoidance and Resource Recovery (Container Deposit Scheme) Regulations 2019
- Waste Avoidance and Resource Recovery Regulations 2008
- Waste Avoidance and Resource Recovery Amendment Regulations 2019
- Waste Avoidance and Resource Recovery Levy Regulations 2008
- Water Agencies (Entry Warrant) Regulations 1985
- Water Agencies (Infringements) Regulations 1994
- Water Corporations (Transitional Provisions) Regulations 2013
- Water Services Regulations 2013
- Water Services Coordination Regulations 1996
- Water Services (Water Corporations Charges) Regulations 2014
- Waterways Conservation Regulations 1981

Other subsidiary legislation affecting our activities

For all other subsidiary legislation including by-laws, notices, declarations, proclamations, approvals, exemptions, orders, policy, pollution control areas, vesting orders, irrigation districts, standards, and guidelines, please go to: www.legislation.wa.gov.au

Other key legislation affecting our activities

In the performance of our functions, the department complied with the following laws:

- *Aboriginal Heritage Act 1972*
- *Auditor General Act 2006*
- *Corruption and Crime Commission Act 2003*
- *Disability Services Act 1993*
- *Equal Opportunity Act 1984*
- *Financial Management Act 2006*
- *Freedom of Information Act 1992*
- *Government Employees Housing Act 1964*
- *Industrial Relations Act 1979*
- *National Environmental Protection Council Act 1997* (Cwlth)
- *Long Service Leave Act 1958*
- *Minimum Conditions of Employment Act 1993*
- *Native Title Act 1993* (Cwlth)
- *Occupational Safety and Health Act 1984*
- *Public Interest Disclosure Act 2003*

- *Public Sector Management Act 1994*
- *Salaries and Allowances Act 1975*
- *State Records Act 2000*
- *State Supply Commission Act 1991*
- *Workers' Compensation and Injury Management Act 1981*

Appendix B: Summary of our services

We support the government goal of 'Better places: A quality environment with liveable and affordable communities and vibrant regions'. The diagram below illustrates the relationship between our services and desired outcomes, and the government goal to which we contribute.

Government goal: Better places: A quality environment with liveable and affordable communities and vibrant regions

Outcome	Key effectiveness indicator	Services	Key efficency indicator
1 Western Australia's growth and development is supported by the sustainable management of water resources for the long term benefit of the state	• Proportion of stakeholders who perceive the department to be effectively managing the state's water as a resource for sustainable, productive use • Proportion of priority growth areas that have a water supply planning strategy	1. Water information and advice	• Proportion of statutory referrals from decision-making authorities where advice is provided within target timeframes • Average cost per statutory referral assessment • Average cost per water measurement site managed
		2. Water planning, allocation and optimisation	• Average cost per plan, report or guidance document to support water planning, allocation and optimisation • Average cost per hour of scientific support for water planning, allocation and optimisation
		3. Water regulation, licensing and industry governance	• Average cost of assessing a water licence application by risk assessment category • Average time taken (days) to assess a licence application by risk assessment category • Average cost of compliance monitoring and enforcement action
2 Emissions, discharges and clearing of native vegetation are effectively regulated to avoid unacceptable risks to public health and the environment	• Percentage of regulatory compliance activities completed as planned • Percentage of potential environmental risks identified during compliance monitoring program that are rectified within two months	4. Environmental regulation	• Average cost per works approval and licence application • Average cost per native vegetation clearing permit application

Click on any part of this table for more detail.

Government goal: Better places: A quality environment with liveable and affordable communities and vibrant regions			
Outcome	**Key effectiveness indicator**	**Services**	**Key efficency indicator**
3 Development and implementation of strategic policy and legislation that promoted sustainable environmental outcomes	Percentage of advice and recommendations that met Ministerial approval, without the need for significant modification	5. Water and environment policy	Average cost per hour of policy advice and recommendations
4 Waste avoided and the recovery of materials from landfill maximised	• Percentage of municipal solid waste reported as diverted from landfill through recycling compared to waste strategy target in the Perth metropolitan region • Percentage of commercial and industrial waste reported as diverted from landfill through recycling compared to the statewide waste strategy target • Percentage of construction and demolition waste reported as diverted from landfill through recycling compared to the statewide waste strategy target	6. Waste strategies	Cost of landfill levy compliance as a percentage of landfill levy income collected
5 Quality advice to the EPA and the Minister for Environment on significant proposals and environmental issues	• The EPA's satisfaction with the department's Environmental Impact Assessment (EIA) service, during the year, in line with Best Practice Principles of EIA • Percentage of project-specific conditions which did not require significant change following the appeal process • Percentage of assessments that met agreed timelines • The EPA's satisfaction with the department's provision of environmental management services during the year	7. Environmental impact assessment services to the EPA	Cost per standardised unit of assessment output
		8. Environmental management services to the EPA	Cost per standardised unit of environmental management services output
6 Compliance with Ministerial statement implementation conditions are monitored effectively	The number of Ministerial statements audited compared to targets	9. Compliance monitoring services to the Minister for Environment	Average cost per environmental audit completed

Click on any part of this table for more detail.

Appendix C: Index to operational performance

Strategy 4
Delivering trusted information, science and evidence-based advice

Strategy 5
Building organisational excellence

Features

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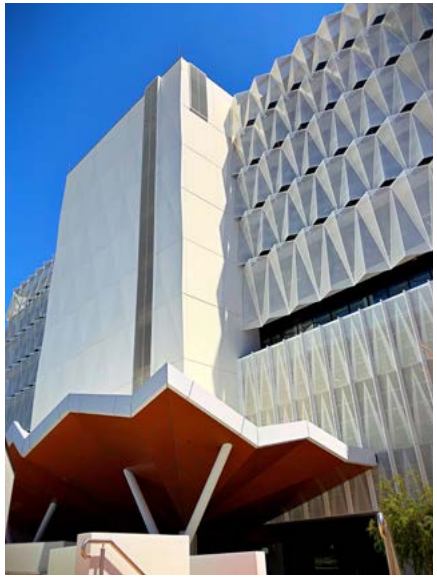

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Feedback form

Your feedback on our 2018–19 annual report would be greatly appreciated. We will use your comments to help improve the clarity and presentation of our publications. Thank you.

► Did the report help you understand the department, its purpose, services and performance?

not at all | not really | somewhat | yes | absolutely

► Did you find the design and presentation functional and effective?

not at all | not really | somewhat | yes | absolutely

► Was the report clear, concise and easy to read?

not at all | not really | somewhat | yes | absolutely

► Did you find the structural format of the report simple and logical?

not at all | not really | somewhat | yes | absolutely

When completed please return to:
Corporate Communications

Email: communications@dwer.wa.gov.au

or

Mail to:
Department of Water and Environmental Regulation
Locked Bag 10
Joondalup DC WA 6919

Please send your comments by 5 pm, 6 December 2019

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