Department of Health

GOVERNMENT OF WESTERN AUSTRALIA

Environmental Health Directorate Yearbook

Financial Year Report 2022–2023

health.wa.gov.au

This yearbook was prepared by:

Environmental Health Directorate
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Disclaimer

Feedback

Any feedback related to this plan should be emailed to ehinfo@health.wa.gov.au

Acknowledgment of Country

WA Health acknowledges the Aboriginal people of the many traditional lands and language groups of Western Australia. It acknowledges the wisdom of Aboriginal Elders both past and present and pays respect to Aboriginal communities of today.

Contents

Message from the Executive Director

It is with great pleasure that I present to you our yearbook for the 2022–23 financial year. Our yearbook outlines the significant events and activities that have shaped our efforts in safeguarding public health throughout the year.

The past year has been marked by several notable events and initiatives, each of which has allowed us to demonstrate our commitment to protecting the health of Western Australians. We faced unique challenges, yet with dedication and resilience, our team embraced these opportunities to make a positive impact on the communities we serve.

One such event was our response to the total solar eclipse. Ensuring public safety during this celestial spectacle required close collaboration with various agencies and meticulous planning, and our response reflected our preparedness to address unforeseen circumstances.

Furthermore, we demonstrated unwavering support during the Fitzroy Crossing flood recovery, where our team actively participated in efforts to help communities recover from the devastating impact of the floods, providing assistance and resources to ensure the well-being of the affected population.

Our commitment to shaping effective policies that benefit the entire state was evident with the release of the draft Code of Practice for On-site Wastewater Disposal. This initiative prompted state-wide consultation, allowing us to seek feedback from diverse stakeholders to gather valuable insights for the formulation of robust code.

Another significant milestone in our journey was the publication of the report on the Statutory review of the Food Act 2008. This review provided essential feedback, contributing to the continuous improvement of food safety measures and ensuring that the food industry adheres to the highest standards of hygiene and quality.

In line with our commitment to promoting safe events, we published the updated Guidelines for Concerts, Events, and Organised Gatherings. This proactive resource aims to mitigate potential health risks during public events and ensure that the community can continue to enjoy events safely.

Throughout the year, we maintained an ongoing response to the Japanese encephalitis virus, prioritising disease surveillance and prevention measures, exemplifying our dedication to safeguarding public health against emerging health threats.

Recognising the importance of food safety, we rolled out Standard 3.2.2A – Food Safety Management Tools, emphasising the significance of proper food handling and preparation practices across the food industry. A range of resources were developed to support local governments to promote the changes.

Lastly, we celebrated the launch of the WA Foodborne Illness Reduction Strategy 2023–2026, reinforcing our commitment to reducing foodborne illnesses.

None of these achievements would have been possible without the support of our dedicated team, the cooperation of our partner organisations, and the invaluable trust and encouragement from our community.

As we embark on another year of service, we are committed to continuing our efforts in promoting public health, and fostering a healthier and safer Western Australia. We look forward to even greater achievements in the coming year, building on the solid foundation laid during the 2022–23 financial year.

Thank you for your continued support and collaboration.

Dr Michael Lindsay

Executive Director
Environmental Health Directorate
Western Australian Department of Health

Environmental health aims to protect our health from hazards in the environment

Biological

Mosquito-borne disease vectors

Insects of public health significance (biting midge, march flies, ticks)

Beauty therapy industries

Legionella

Built environment

Public events

Lodging houses

Housing

Mould

Public buildings

Chemical

Air quality

Asbestos

Chemical exposure

Pesticide safety

Lead

Contaminated land and water

Contamination from illicit drug manufacture

Food

Food pathogens

Food allergens

Food contamination

Food composition

Food poisoning

Food hygiene

Water

Wastewater and biosolids

Aquatic facilities

Air handling systems

Drinking water

Environmental recreational water

Groundwater replenishment

Recycled water

The air we breathe, the water we drink and the food we eat are all part of our environment and can have a direct impact on our health. As we live, work and play we may be exposed to biological, chemical and physical hazards in both indoor and outdoor environments. Different exposures may be linked to diseases, illness, injury, disability, physical and mental health conditions and premature death. Environmental health professionals aim to protect people from these health hazards and activities in non-workplace environments.

Emergency hazards

Natural disasters

Climate change

About us

The Environmental Health Directorate (EHD) has a crucial role in managing environmental health matters at a statewide level. We deliver a diverse range of activities, including the administration of 5 Acts and 26 subsidiary regulations. As a trusted regulator, community educator and capacity builder, we work together with the State government, local governments and industry to protect the health and safety of the WA community.

Our vision

Working together to protect, promote and improve the health and wellbeing of Western Australians.

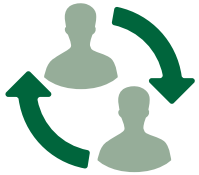
Our goal

Protect our community and prevent disease, illness and injury caused by environmental health hazards.

Our values

Purposeful

Caring



Collaborative

Open

Outcome-focused

Our strategic outcomes

During the 2022–23 financial year our team were adhering to our *Environmental Health Directorate Strategic Plan 2020–2023* which describes 3 key strategic outcomes:

- safe food and water
- healthy built environments and safer industries
- managed community hazards.

Operating structure

The Environmental Health Directorate includes 6 program areas that support the Executive Director to deliver environmental health services.

Executive Director

System performance

Emergency response and management, pesticide and food licensing, development assessments, pesticide compliance, local government response, customer service, system and executive support, workforce planning and capability, surveillance and business intelligence

Science and policy

Legislation and regulatory reform, Aboriginal environmental health, public health assessments, stakeholder engagement

Biological and applied EH hazards

Mosquito management, invertebrate and arbovirus surveillance programs, events, personal appearances, mould, public buildings and legionella

Chemical hazards

Air quality, land and water contamination, asbestos, pesticide safety, illicit drug contamination, chemical exposure

Food

Food policy and standards, management of chemical, microbiological, physical and dietary food risks, food incident management, food recalls

Water

Drinking water, aquatic facilities, environmental waters, wastewater, recycled water, biosolids, air handling and ground water replenishment and subdivision assessment

Enabling legislation

We administer the following Acts and regulations:

Public Health Act 2016
Health (Miscellaneous Provisions) Act 1911

Built environment

- Health (Asbestos) Regulations 1992
- Construction Camp Regulations
- Health (Construction Work) Regulations 1973
- Health (Aquatic Facilities) Regulations 2007
- Health (Public Buildings) Regulations 1992
- Health (Temporary Sanitary Conveniences) Regulations 1997
- Health Act (Carbon Monoxide) Regulations 1975
- Health Act (Laundries and Bathrooms) Regulations
- Health (Garden Soil) Regulations 1998

Body art and personal appearance services

- Hairdressing Establishment Regulations 1972
- Health (Skin Penetration Procedure) Regulations 1998

Pesticide safety

- Health (Pesticides) Regulations 2011

Contaminated sites (parts of)

Contaminated Sites Act 2006

Other

- Fly Eradication Regulations
- Piggeries Regulations 1952
- Health (Cloth Materials) Regulation 1985
- Health (Offensive Trades Fees) Regulations 1976
- Health (Rottnest Island) By-laws 1989
- Health (Prescribed Insect Pests) Regulations 1991
- Health (Notification of Lead Poisoning) Regulations 1985
- Health (Section 112(2) Prohibition) Regulations 2006

Food

Food Act 2008

- Food Regulations 2009

Water

Fluoridation of Public Water Supplies Act 1966

- Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974
- Health Act (Underground Water Supply) Regulations 1959
- Health (Air-handling and Water Systems) Regulations 1994
- Sewerage (Lighting, Ventilation and Construction) Regulations 1971
- Registration, Enforcement and Discharge of Local Authority Charges on Land Regulations

Major achievements

Our teams have delivered a diverse range of activities over the last financial year, partnering with numerous stakeholders to protect the health and safety of the WA community.

Some of our most significant achievements included:

- Response to the total solar eclipse
- Support for Fitzroy Crossing flood recovery
- Release of the draft Code of Practice for On-site Wastewater Disposal for statewide consultation
- Publication of the report on the Statutory review of the *Food Act 2008*
- Published the updated Guidelines for concerts, events, and organised gatherings
- Ongoing response to Japanese encephalitis virus
- Roll out of Standard 3.2.2A – Food Safety Management Tools
- Launch of the WA Foodborne Illness Reduction Strategy 2023–2026

Safe food and water

- Food that is safe and suitable to eat
- Water that is safe to use

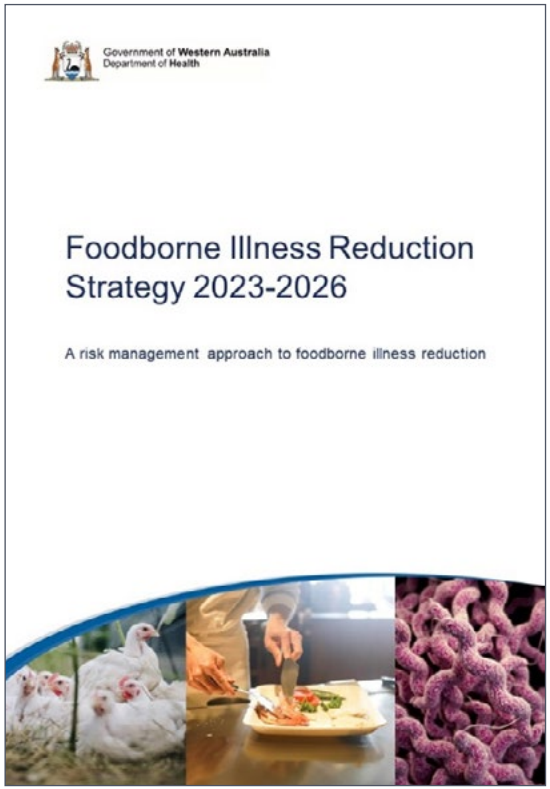
Food that is safe and suitable to eat

Foodborne Illness Reduction Strategy (FBIRS) 2023–2026

Although salmonellosis rates remained low in 2022, WA experienced a historic peak in campylobacteriosis rates, with a 28 per cent increase in cases compared to the previous year. To tackle this public health issue, we launched a revised FBIRS with the aim to decrease rates over the next 3 years.

The FBIRS will adopt a risk-based management approach, similar to its previous edition, aiming to manage food safety risks across every step of the supply chain, starting from primary production and extending all the way to the supply of food to consumers. Key elements:

- establishing and maintaining an effective surveillance and response system
- minimising food safety risks at the primary production and processing stage
- raising consumer food safety awareness
- sector-based initiatives for the chicken meat, egg, and high-risk horticulture industries.



Report on the Statutory review of the *Food Act 2008*

Following a public consultation period from 1 December 2021 to 5 May 2022, the findings of the review of the *Food Act 2008* were tabled and published on the WA Parliament website. The review considered submissions from a wide range of stakeholders, including food retailers, food businesses, academics, charities, research institutes, communities of practice, local government regulators, the public and food safety regulators. Overall, it found that the Act and regulations are working well and offer effective tools for regulation, compliance and enforcement. Additional guidance material is being prepared on key provisions for the local government sector.

Roll out of Standard 3.2.2A – Food Safety Management Tools

Standard 3.2.2A – Food Safety Management Tools was gazetted on the 8 December 2022. The new regulatory measures require food handler training, a food safety supervisor and evidence to substantiate food safety management of key processes, depending on whether the business is a category one or two food service business.

The food team coordinated the implementation of the standard in partnership with local governments across WA. They hosted an engagement meeting with local government Environmental Health Officers (EHOs) to identify the resources required to support local government enforcement agencies and food service businesses in understanding and complying with the new requirements.

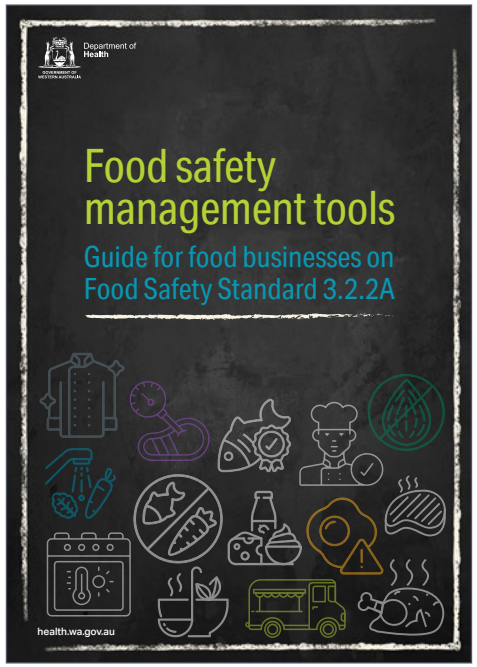
Following this, the team published a range of resources including:

- food safety management tools for food businesses webpage
- food safety management tools guide for food business
- infographic
- factsheet
- stakeholder engagement toolkit
- promotional assets.

The team also made these available in other languages including Simplified Chinese, Italian, Vietnamese and Thai.

Alongside this, the team ran a series of newspaper articles and social media posts to raise awareness of the new standard. Several seminars and a webinar were hosted for local government EHOs and industry stakeholders to provide an overview of the new requirements.

Food that is safe and suitable to eat



New horticulture standards for berries, leafy vegetables and melons

Following extensive review by Food Standards Australia New Zealand (FSANZ) 3 new standards were gazetted on the 12 August 2022 and added to chapter 4 of the Food Standards Code:

1. Standard 4.2.7 – Berries
2. Standard 4.2.8 – Leafy Vegetables
3. Standard 4.2.9 – Melons

We coordinated the implementation of the standards across WA in partnership with local governments and industry representatives. This included forming a WA Horticulture Standard Implementation Working Group to oversee implementation, with a 30-month transition period for industry to comply by February 2025, and the following key activities:

- development of resources and assessment templates for EHOs
- collaboration with Vegetables WA to develop a training program for EHOs
- development of resources for growers to assist with implementation.

We hosted a webinar on 15 November to raise awareness of the standards to local governments and industry.

National surveillance of antimicrobial resistant bacteria in retail meat survey

We collected retail samples of poultry, pork and beef as part of a national survey coordinated by FSANZ to support Australia's National Antimicrobial Resistance Strategy – 2020 and Beyond. This was the first national surveillance of antimicrobial resistant bacteria in retail food since 2007.

WA commenced sampling in September 2022, testing for the presence of *salmonella, campylobacter, E. coli* and *enterococcus*, to gauge the scale of antimicrobial resistant bacteria in select retail foods and to identify emerging threats.

Alcohol content and labelling requirements for non-alcoholic fermented beverages guide

We developed the Alcohol content and labelling requirements for non-alcoholic fermented beverages guide to assist local governments to monitor compliance by food businesses manufacturing fermented beverages commonly sold as non-alcoholic. Regular monitoring of the alcohol content and labelling information of fermented beverages commonly sold as non-alcoholic is important to ensure that unintended high levels of alcohol production do not occur. In WA, any beverage containing more than 0.5 per cent alcohol by volume (ABV) must be labelled with a statement of the alcohol content and the number of standard drinks. Beverages containing more than 1.15 per cent ABV are considered a liquor and must be labelled with the alcohol content, number of standard drinks, as well as a pregnancy warning.

Fermented foods guide

Following an increase in the number of enquiries relating to fermented food products such as kimchi, sauerkraut, kombucha, kvass, kefir and ginger beer, a new Fermented Foods Risk Assessment Guide for local government and food businesses was published. The guide provides an overview of the manufacturing process of 2 fermented products, kimchi and kombucha, the first as an example of lactic acid fermentation and the second an example of acetic acid fermentation.


Risk assessment and legislative requirements for fermented foods

Information for local government Food Act 2008 authorised officers

Background

History of fermented foods

Novel foods

To improve understanding of WA local governments and food businesses on how novel foods are regulated in Australia, we developed a new novel foods webpage to provide guidance on relevant regulatory aspects, including definitions, roles and responsibilities and assessment process of novel foods in Australia.

There has recently been an increase in the commercialisation of novel foods due to the utilisation of new technologies including chemical synthesis resulting in creation of novel foods, creating novel foods or novel ingredients from by-products and creating new foods or novel ingredients that may have low environmental impacts.

Seeds and bean sprouts webpage

We updated the seeds and bean sprouts webpage to improve compliance with WA food laws and standards. Seeds and bean sprouts are considered a high-risk horticulture produce as they are commonly eaten raw or lightly cooked. As harmful bacteria can grow rapidly during the production of seed sprouts, it is important that food safety risks are managed throughout the entire production process.

Hand washing after handling animals poster

Following reports of gastrointestinal illness from infections associated with the handling of farm animals, we produced a poster to raise awareness of the importance of hand washing after handling animals. The poster can be displayed at relevant locations such as farm stays, petting zoos, animal nurseries, exhibits and agricultural shows along with details of the Petting Zoo Guideline.

Survey report of low-THC hemp seed foods

The Implementation Sub-committee for Food Regulation conducted a bi-national survey, led by the NSW Food Authority, to investigate whether low-Tetrahydrocannabinol (THC) hemp food products sold in Australia and New Zealand comply with the requirements under the Food Standards Code.

The survey involved testing the total THC and total CBD level in hemp-based food products such as hemp seeds, hemp flour, hemp protein, hemp oil, and other food products which contain hemp as an ingredient. Our staff collected WA samples for analysis at the ChemCentre in 2021. The survey results were released in February 2023, outlined on the FSANZ website. We later published the low-THC hemp as food products webpage.

Food safety for the holidays on RTRFM

Peter Gray, Manager of the Food Unit discussed food safety for the holidays on RTRFM 92.1 Fitter Happier radio program. A range of common food matters were addressed including food contamination, food poisoning and what to look out for during summer. Listen here.

Removing unsafe foods from the marketplace

The majority of food recalls initiated by WA food businesses during 2022–23 were precautionary consumer level food recalls executed to ensure that potentially unsafe food was removed from distribution, sale and consumption. The most common reason for food recalls were undeclared allergens, followed by microbiological contamination and foreign matter. Examples include:

Undeclared allergen

The department was advised of products imported into WA, namely Jabsons tandoori roasted peanuts and kaju-cashew nuts, which were recalled in the USA due to the products containing undeclared milk. Our food team provided assistance to the City of Stirling in conducting a comprehensive investigation, leading to a WA food business to execute a consumer level food recall of 4 Jabsons products.

Enoki mushrooms microbial contamination

In response to listeriosis outbreaks associated with enoki mushrooms both internationally and in Australia, FSANZ commissioned a nationwide microbiological survey. State regulators across Australia collected retail samples of enoki mushrooms between April and June 2023 to assess the prevalence and concentration of *listeria* in the commodity. Test results received in April detected significant levels of *listeria monocytogenes* present in enoki mushrooms that were imported into WA, and the product label had no instructions to cook the product prior to consumption. The team considered a precautionary approach to recall the product, which was supported by the City of Canning and the food business, which made the decision to execute a consumer level food recall.

Poppy seeds thebaine toxicity

The team supported the national food incident response to thebaine toxicity linked to poppy seeds, which included a national recall of affected products undertaken by FSANZ, and the department issuing 2 media releases warning people to avoid consuming the seeds implicated in the recall given the potential toxicity caused by unusually high levels of thebaine. Refer to the WA Health warns community of severe reactions after consuming poppy seed tea and Update: WA Health warning on poppy seeds media releases.

Representation on multi-jurisdictional shellfish projects

We participated in 2 Fisheries Research and Development Corporation projects:

1. **Contextualising shellfish food safety in Northern Australia**

   This project covered the Northern Territory, WA and Queensland, involving a variety of industry and government stakeholders. Officers completed a risk profile for bivalve oysters grown in the north of Australia.

2. **Toxigenic vibrio baselines and optimum storage, transport and shelf-life conditions to inform cold supply chains in the north Australian tropical rock oyster industry.**

   This study aims to identify the best post-harvest storage and transport temperatures and assess tropical rock oyster (TRO) shelf life at realistic storage temperatures, as very few studies have been published on the optimal storage conditions for tropical oysters particularly blacklip rock oysters (BRO).

   Internationally, TROs have a poor safety reputation, with vibrio at the top of the list. Developing a BRO industry needs to understand how the product quality and safety (particularly the vibrio risk) is affected by post-harvest conditions.

   This project will provide fundamental information to the developing TRO industry in north Australia.

Abrolhos Islands aquaculture

WA continues to see unprecedented growth in shellfish aquaculture across its extensive coastline. As this growth moves into remote areas, it presents numerous logistical challenges to regulating food safety matters. We are currently working collaboratively with several stakeholders to manage these challenges including the Department of Primary Industries and Regional Development, local governments and industry. This area of work is highly specialised and recently has involved gaining advice from a subject matter expert to undertake a food safety risk profile of the Abrolhos Islands.

Under the *Food Act 2008* the department is the enforcement agency for the primary production and processing of bivalve mollusc shellfish. Bivalve molluscs shellfish are a high-risk food given they are filter feeders and can bioaccumulate bacteria, viruses, toxins, heavy metals, chemicals, and other substances derived from the waters in which they grow.

The overall management of the WA Shellfish Quality Assurance Program is the responsibility of the EHD, and careful consideration is given to every application to ensure that future production of bivalve mollusc shellfish in WA are safe and suitable for human consumption.

Meat for human consumption standard

We participated in the Standards Australia review of AS4696:2007, the hygienic production and transportation of meat and meat products for human consumption. The revised new standard was published in March 2023 as AS4696:2023, and the department advised stakeholders of the new requirements which are now enforceable.

National food submissions

Our food science experts reviewed the following national proposals and applications under the Food Standards Code and developed submissions that align with the national food regulation priority of supporting public health objectives to reduce chronic disease related to overweight and obesity:

- FSANZ Proposal P1059 Energy Labelling on alcoholic beverages
- FSANZ Application A1253 Bovine lactoferrin in infant formula products
- FSANZ Application A1256 Colour of pregnancy warning labels for corrugated cardboard packaging
- FSANZ Proposal P1028 – review of the infant formula standard.

Food operational data

	2022–23
Responses to incoming enquiries	
Food safety inbox enquiries/complaints	1,908
Food recalls	
Food recalls coordinated	36
Recalls originating in Western Australia	8
Non-traditional / Novel Foods	26
Food outbreaks	
Pathogen Notifications Actioned	321
Foodborne Outbreaks Coordinated (LG run)	8
Outbreak related sampling (LG)	192
Food poisoning (LG)	111
Type of business activity registered with DoH	
Public hopsitals	87
Meat processors (total)	113
Abattoir	25
Boning room	46
Rendering	2
Small goods	39
Transporter	1

	2022–23
Food not in a district (Kings Park, Rottnest)	33
Tier 1 export abatttoirs	3
Bivalve mollusc processors	4
Audits and assessments	
Food Act Reports submitted by LG	124
Public hospitals	176
Meat processors (how many)	110
How many audits conducted	119
Not in a district (food business)	33
Tier 1 export abatttoirs	2
Controlling authority	119
Bivalve mollusc processors	6
EHD compliance and enforcement	
Improvement notices	6
Publication of names of offenders	9
Applications and renewals	
Egg Stamping Applications	15
Regulatory food safety auditors – renewal	1
Regulatory food safety auditors – new application	7

Food that is safe and suitable to eat

	2022–23
WASQAP monitoring	
Water samples micro	154
Flesh samples micro	48
Water samples phytoplankton	106
Flesh samples for biotoxins	52
Flesh samples for chemicals	13
Food samples analysed by EHD	
Chemical surveys	228
Microbiological surveys	76
Routine Local government samples	516
Food poisoning and outbreak investigation	192
Poultry	392
Animal feed	71
Food samples analysed by PathWest	
Total food samples analysed by PathWest	1,153
Routine Local government samples	516
DoH total samples	322
Stakeholder communication	
Presentations	6

Water that is safe to use

This event highlights the importance of local governments ongoing participation in the annual environmental health recreational water monitoring program.

Vibrio vulnificus associated with the Canning River estuary

We became aware of 2 patients in hospital infected with the potentially life-threatening *vibrio vulnificus*, following recreation in the Canning River estuary. Our officers coordinated water and mussel sampling with the City of Canning and Department of Biodiversity, Conservation and Attractions. Although both samples tested positive for *vibrio* species, *V. Vulnificus* was not detected. Both patients survived, however one required leg amputation.

V. vulnificus is a bacterium normally found in marine or estuarine areas. The combination of climate change and greater public access to natural water bodies may increase the risk posed by *V. vulnificus*. The US is developing a global satellite monitoring vibrio alert system, OceanViewer, which provides WA with an opportunity to input water quality data into this early warning surveillance system. We will continue to explore and develop this.

Moore River elevated bacterial levels and health illness reports

Routine sampling of Moore River at Guilderton revealed elevated *E. coli* results in January. The Shire of Gingin and our staff worked together to erect health warning signs and issue a media release. We received numerous reports of illness (primarily gastric illness, gastroenteritis and skin infections), spanning several weeks after the event, following swimming and other recreational activities within Moore River.

Algal bloom in lower Vasse River Busselton

The lower Vasse River in Busselton bloomed above National Health and Medical Research Council (NHMRC) recreational water cyanobacteria (blue-green algae) action levels in early January 2023. Our officers worked with the City of Busselton to ensure permanent health warning signs were erected along affected river sections and to provide advice of potential health risks for record high-bloom levels (in late January).

We were also involved in the development of river improvement measures, including the Stage 1 removal of nutrient enriched sediment that has built up over many decades. Work will continue with the City of Busselton to monitor algal levels.

Swan and Canning Rivers estuary *alexandrium* bloom

After 3 years without an *alexandrium* blooms on the Swan and Canning Rivers estuary, a bloom occurred on the Swan Canning Estuary alongside Riverside drive in Matilda Bay in February 2023. Department of Biodiversity, Conservation and Attractions (DBCA) sampling confirmed elevated levels of *alexandrium*, renewing concerns of biotoxin accumulation in mussels, and crab viscera, and potential paralytic shellfish poisoning.

The bloom continued for 2 months, extending upstream into Perth waters and the Swan River. We responded by requesting river-fronting local government authorities erect harmful algae signs.

New drinking water guidelines for WA

Following a consultation process with the water industry and key stakeholders, the Advisory Committee for the Purity of Water recommended that WA update from the 2018 Australian Drinking Water Guidelines (version 3.5) to the January 2022 edition (version 3.7), as the basis for setting policy on the quality and safety of drinking water supplied in WA, and the relevant risk management framework

The new arrangements commenced on 1 January 2023. The water team is now embarking on the next round of consultation to further update the regulatory framework applicable to drinking water suppliers in WA.

Mock incident scenarios for drinking water

Every year department officers participate in mock incident scenarios with drinking water suppliers in WA to test preparedness for various contamination incidents that may occur and to test incident communication and reporting protocols. This year several incidents focussed on preparedness for bushfire related events and response to microbiological contamination of drinking water supplies. The incident scenarios tested escalation protocols for the Joint Agency Coordination Teams, which involve senior representatives of the drinking water supplier and the Chief Health Officer. Feedback helps to refine the protocols and enhance preparedness for real world incidents that may affect drinking water supplies in WA in future.

Transfer of remote Aboriginal community water and wastewater supplies

We are closely involved in the transfer of responsibility for water and wastewater services in WA's remote Aboriginal communities from the Department of Communities to the Water Corporation. The transfer, which commenced on 1 April 2023, involves 141 remote communities and approximately 12,000 community residents.

The transfer includes an initial $200 million investment for upgrades and continued improvements to power and water infrastructure and improvements to water quality. Delivered through a collaboration between Water Corporation and Horizon Power, the upgrades, which will be phased in over coming years, will bring services into line with comparable communities elsewhere in WA.

The outcomes of the transfer will see the State Government advance its commitment to Outcome 9 of the National Agreement on Closing the Gap, as well as address elements of the Aboriginal Empowerment Strategy and State Infrastructure Strategy.

We will continue to support the transfer and monitor the performance of drinking water supplied to each community.

Review of the adequacy of Legionella prevention strategies in health care settings

Legionella bacteria can pose health risks in healthcare facilities. To minimise these risks, it is important to design, operate, maintain, and manage the air handling and water distribution systems properly.

Our water experts investigated and evaluated strategies for managing Legionella risks including water quality testing processes and procedures across the department's healthcare system. Part of the investigation included a pilot study of 6 health care facilities of different sizes and locations to test the effectiveness of self-assessment and audit tool. The proposed tool proved to be effective in identifying potential gaps and opportunities for improving Legionella control in health facilities.

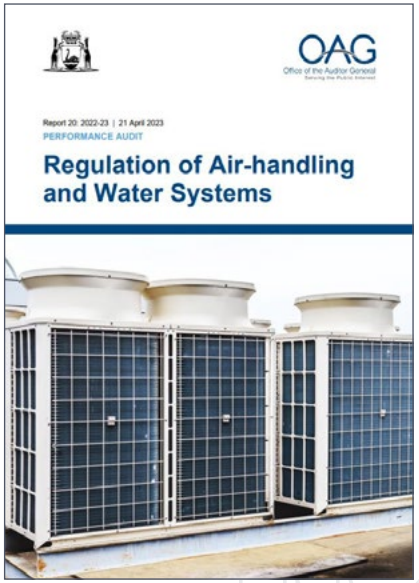
As a result of this investigation, we developed a universal water risk management framework based on existing standards and guidelines, and an associated self-assessment and audit tool which health service providers can use to combat the risk posed by Legionella.

Supporting Legionella control initiatives in healthcare settings

Our water experts were involved in a review of the North Metropolitan Health Service water quality management system (WQMS) to make recommendations on any remaining gaps and necessary remediation strategies, following substantial updates to the WQMS by the health service provider.

They provided advice to the operators of the Mount Hospital following the isolation of legionella in November 2022.

Auditor General review of the regulation of air-handling and water systems



The Office of the Auditor General (OAG) initiated an audit to determine if the department and 3 local government entities, the Cities of Joondalup, Melville and Perth, effectively regulate air-handling and water systems to minimise the risk of Legionella. We provided a range of information to the OAG to support the review. The final report outlined a number recommendations for the department and local government entities to address, which we are currently exploring as part of the review of the newly proposed cooling tower regulatory framework.

Water related planning applications

Poor planning can result in poor public health outcomes, particularly where wastewater disposal is not given the correct level of attention.

Applications for unsewered rezonings, subdivisions and developments are referred to the water team for technical advice. Our water experts assess planning and development applications in accordance with the Government Sewerage Policy. Site and Soil Evaluation (SSE) reports form part of the supporting documentation and are important in the development of town planning and local planning strategies.

Wastewater dump point design guidelines

Wastewater dump points are crucial facilities utilised by recreational vehicle and caravan owners to empty their wastewater canisters while travelling around WA. To clarify requirements a new Wastewater Dump Point Design Guideline was published to provide information on the construction and approval process for dump point wastewater disposal.

Government of Western Australia
Department of Health

Wastewater Dump Point Design

Introduction

Wastewater dump points are public facilities usually provided by local governments, caravan parks or tourist organisations. They are designed to receive toilet waste and wastewater from transitory caravans and other vehicles equipped with toilet and sanitary fixtures.

Dump points are not sewage treatment systems, and are not designed to accept fixed and continual disposal of effluent from caravans and other vehicles. They are designed to collect once-off discharge from such vehicles into a holding tank for collection, or into a reticulated sewer managed by a licensed service provider.

The scope of this document is to provide a guideline on how to install and/or construct onsite wastewater dump points.

Approval to construct and/or install a dump point

Dump points that connect to holding tanks must be approved for installation and use by the relevant local government in accordance with Regulation 50(1)(b) *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulation 1974* (external site).

An application must be lodged every time a dump point is constructed or installed. This should be referred to the Local Government in the first instance by completing an application form (PDF 350KB).

Dump points that connect to sewers must be assessed and approved by the licensed service providers' trade waste requirements.

Constructing a dump point

Dump points consists of a receptacle which allows users to easily connect or empty their wastewater storage tank. Only WaterMark ATS5200.482 certified receptacles can be installed in Western Australia.

Dump points should be equipped with:

- a tap and hose for washdown of wastewater canisters from vehicles and dump point. A back-flow prevention device should be installed to prevent scheme water contamination from the hose and wash down area. All plumbing work must be done in accordance with Australian Standard AS 3500.
- barriers to prevent vehicle damage without hindering user access
- adequate drainage to prevent storm water entering the dump point and holding tank
- adequate signage to make people aware of the location
- sufficient room for vehicles to manoeuvre
- a lockable access lid to prevent misuse
- a raised road to allow gravity assisted flow of wastewater from the vehicle
- a suitable floor surface (e.g. an existing floor surface or cast into a concrete slab).

The following diagrams show the layout of a typical dump point.

health.wa.gov.au

Wastewater consultation summary paper

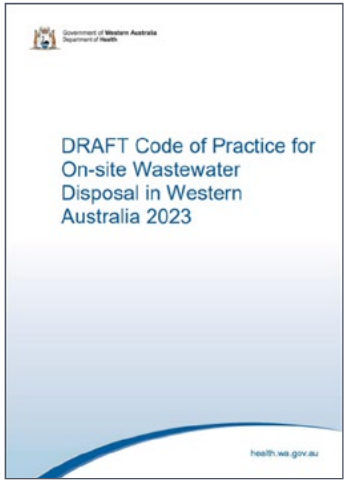
In 2021 the department undertook consultation on a proposed new regulatory framework for on-site wastewater disposal in WA. We published the Consultation Summary Report which summarises stakeholder responses to the discussion paper for managing the public health risks from wastewater conveyance, treatment and disposal in WA. The consultation summary assessed the effectiveness of the current regulation of wastewater and proposed strategies to manage this public health risk into the future.

Draft Code of Practice for On-site Wastewater Disposal

As part of the department's regulatory reform program a draft Code of Practice for On-site Wastewater Disposal was prepared for consultation with the intent to adopt the code within future wastewater regulations to be created under the *Public Health Act 2016*.

The need to develop a code of practice was identified from feedback submitted during the consultation on the discussion paper for managing the public health risks from wastewater conveyance, treatment and disposal in WA. Feedback indicated a need for a code to provide the detail to support compliance with the proposed regulation.

The code was initially drafted in collaboration with industry and local government representatives before disseminating statewide for a 12-week consultation period. Stakeholders have been provided an opportunity to review the draft code and make a submission. Two seminars and live webinars have been organised.



DRAFT Code of Practice for On-site Wastewater Disposal in Western Australia 2023

Promoting compliance in recycled water management

As part of our focus on ensuring compliance among recycled water scheme operators we initiated a comprehensive review of our recycled water approvals database. This crucial step ensured that the database accurately reflected active recycled water schemes and effectively tracked key compliance requirements. By maintaining an up-to-date and reliable database we have set the stage for increased transparency and accountability within the recycled water industry.

Our officers inspected several recycled water schemes, including irrigation of sporting fields, managed aquifer recharge systems, the reuse of greywater in commercial buildings, and the Water Corporation's Perth groundwater replenishment scheme. We gained valuable insights into the operations of these schemes, identified areas for improvement, and verified compliance with regulatory standards.

Enforcement action was initiated based on audit findings and annual report submissions to ensure recycled water scheme operators adhere to the prescribed standards and rectify non-compliant practices.

Equipotential bonding assessment

Equipotential bonding in a swimming pool environment is a crucial safety measure that ensures electrical safety for pool users. We continued to assist the Department of Education to ensure their swimming pools complied with the Code of Practice for Aquatic Facilities. A key focus was to ensure equipotential bonding was compliant with AS/NZS 3000:2018.

Baby spa safety

A baby spa is an aquatic facility defined under the *Health (Aquatic Facilities) Regulations 2007*. It is an emerging type of aquatic facility in WA where babies are allowed to float in heated water under supervision for a short duration.

Baby spas are marketed by spa operators as an opportunity for learning and health benefits. To ensure the safety and proper operation of these facilities, the Baby Spa Installation, Operation, Monitoring, and Risk Management in Western Australia guide was released for both local governments and spa operators. The guideline has incorporated input from local government and interstate health departments. With this framework in place, it will help provide a unique experience for babies in a safe and controlled environment.

Water operational data

	2022–23
Water Unit assessments and approvals	
Drinking water quality management plans assessed	4
Wastewater MOUs	3
Aquatic facility applications assessed	61
Aquatic facility compliance inspections	42
Aquatic facility certificates of complinance issued	24
Assessments of recycled water quality management plans	24
Assessments of recycled water scheme applications	4
Assessments of biosolids applications	18
Product assessments for wastewater	22
Applications to install or construct an apparatus for the treatment of sewage	242
Application approvals for subdivision submitted by WAPC	327
Septic Tank Application Payments Received/Processed	261
Number and type of water monitoring samples collected	
Swimming pool / aquatic facilities	17,340
Drinking waters (excluding remote Aboriginal communities)	2,609
Natural environmental waters	3,546

	2022–23
Recycling schemes	933
Wastewater	13
Abattoir, meat and poultry processes	24
Legionella monitoring of air-conditioning	279
Type and number of responses to wastewater overflows/sewage spills	
Commercial	18
Domestic	303
Environmental and domestic	95
Environmental (land based) only	318
Environmental waters only	40
Public – internal	2
Total	**776**
Number of health responses to fish kills and algal bloom events	
Fish kills in recreational water bodies	7
Algal bloom events	16
Bacterial alerts and/or investigations	3
Shellfish, crab and/or fishing alerts	1
Total	**27**

Healthy built environments and safer industries

- Improved environmental health conditions in remote Aboriginal communities
- Safe public events, homes and public buildings
- Control of pesticide use, tobacco and personal appearance industries

Improved environmental health conditions in remote Aboriginal communities

Aboriginal environmental health program review

The department completed a review of the Aboriginal Environmental Health Program in 2022, publishing the main report and an options paper with a number of recommendations to inform and support the program into the future.

The department has committed to responding to the recommendations and is in the process of working with the Aboriginal Health Council of WA as the state's peak body for Closing the Gap and Aboriginal community-controlled health services, to collaboratively manage the co-design process for the program. This is an exciting opportunity to engage with the Aboriginal community controlled sector to inform the shape, purpose and outreach of a future program.

Clinic based environmental health referrals for home assessments

A clinical referral can assist with identifying and remediating risks in the home and living environment that might be contributing to a presenting illness or disease. This area of work continued to be a high priority in 2022–23, with processes, documents and e-tools being updated and rolled out. There have been significant improvements in this area due to on-the-job training, personal support and mentoring for our contracted Aboriginal staff. Another key component of the work in this area has been supporting referring clinicians in primary health care and hospital settings, so that they are aware of the service, have easy and ready access to the referral forms and tools they need, and have confidence in the responses of the Aboriginal services. Clinical staff turnover in remote and regional areas also provides a challenge, with ongoing training and support in this area.

Healthy home assessments app.

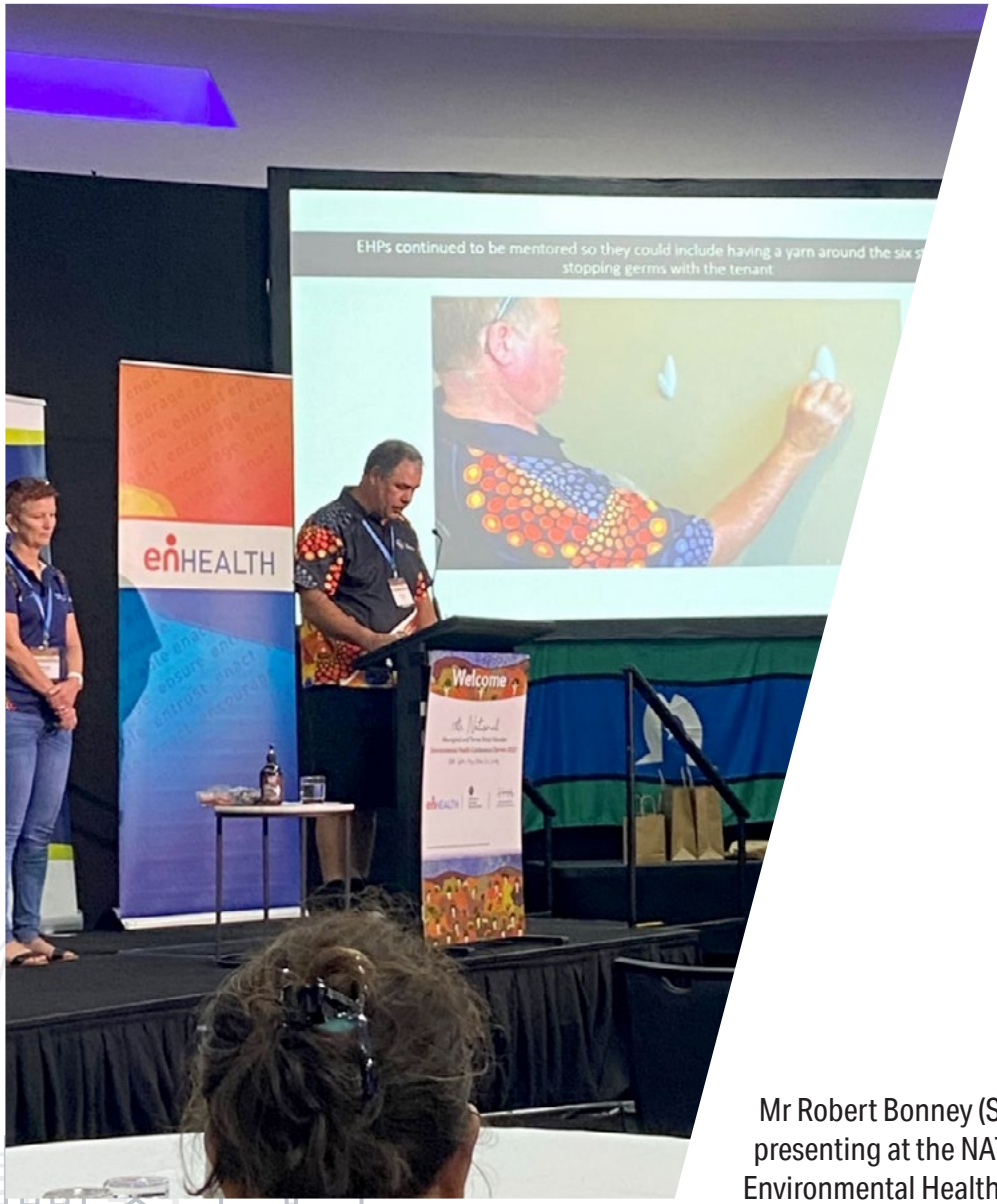
After seeing the widespread and enthusiastic take up of safe bathroom assessments by service providers, and in response to their requests to do more in the home environment, the assessments were expanded to the more comprehensive healthy housing assessments. To support this expansion, we developed an app based recording platform that can be used on a range of electronic devices. Smart phones are proving to be the most popular way of operating for the Aboriginal workforce, and are also proving popular with our housing contacts. They can receive a detailed report (text and photos) from the app, which indicates repairs conducted and maintenance requirements for each property assessed. This reduces the wait times for key maintenance issues to be fixed or followed up to. Use of the app with whole of home assessments has proven to be a more efficient way of getting health hardware issues identified and fixed.

Community wide housing blitzes

Intensive community wide blitzes have continued to be a feature of what the program can offer to regional and remote communities and can be delivered in flexible and adaptive ways to suit community needs. These typically include offering to provide any of the following:

- house to house healthy housing assessments
- emergency plumbing issues fixed on the day
- other new and outstanding maintenance issues being referred to and logged with the provider
- provision of health promotion programs and messaging –based around the 'Milpa's six steps to stopping germs' sticker
- coordination with local health services
- provision of healthy living practices resources such as personal care items, liquid hair and body wash sets, cleaning equipment and consumables, mirrors, towel hooks and rails, towels, replacing broken or missing ceiling light bulbs.

To date more than 40 different agencies have been involved with up to 10 being involved in a single event. Like the healthy housing assessments, these blitzes are offered to communities and are well received by everyone including community leaders, tenants and households, Department of Communities' Housing Authority, Tenancy Management Agencies, other housing and tenancy related agencies and trades.



National Aboriginal and Torres Strait Islander Environmental Health Conference

This conference is held every 2 years, most recently in Darwin from 5 to 8 September in 2022. The WA contingent continues to be well represented, being the biggest cohort of attendees. A total of 9 verbal and poster presentations were accepted by the national conference organisers (under the guiding auspice of enHealth's national Expert Reference Panel for Aboriginal and Torres Straight Islander Environmental Health). A common comment from those who attend and who are new to this series of conferences is that it is one of the best conferences that they have attended, both in terms of organisation and the quality and breadth of topics covered – a real quality professional development and networking event.

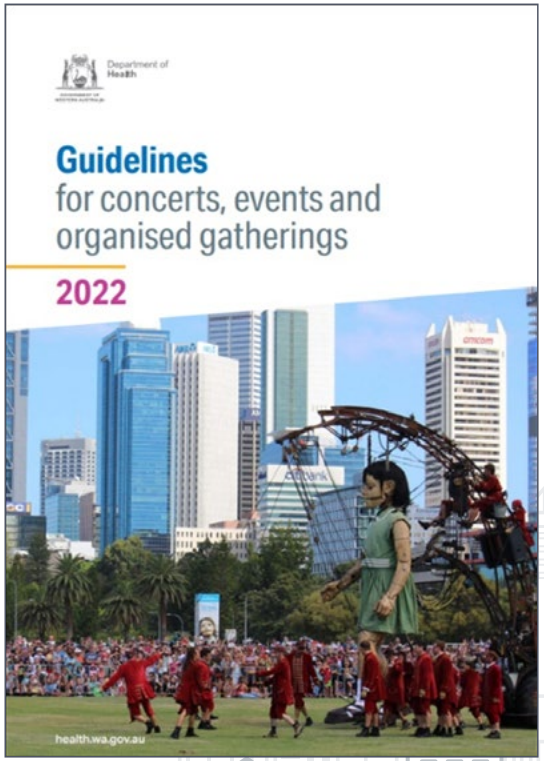
Mr Robert Bonney (Senior AEH Practitioner at the Goldfields' Bega Garnbirringu Health Service) presenting at the NATSIEH Conference 2022 with Dr Melissa Stoneham (Lead of the WA Environmental Health Trachoma Project at Curtin University's Public Health Advocacy Institute)

Safe public events, homes and public buildings

Updated Guidelines for concerts, events and organised gatherings

We updated the *Guidelines for concerts, events and organised gatherings 2022* to support organisers of public events to navigate the various approvals and risk management requirements that need to be considered. This replaced the 2009 version, identifying basic standards and safety measures for event organisers to satisfy authorities including local government, police and emergency response organisations. The new resource is a great example of interagency collaboration, developed in partnership with the Mental Health Commission, WA Police, the Disaster Preparedness Management Unit and Event Health Management.

The guidelines aim to ensure that events and mass gatherings are safe for patrons, do not disturb neighbouring communities and provide uniformity of events and gatherings throughout WA.



Total solar eclipse

The total solar eclipse (TSE) took place on 20 April 2023. The Department of Jobs, Science, Science and Innovation (JTSI) identified the TSE as a unique opportunity to showcase the northwest region of WA, both nationally and internationally, and establish itself as an astro-tourism destination. An extensive schedule of events branded as the 'Night Sky Festival' was developed to run across the Gascoyne and Pilbara regions over the week of the eclipse. Exmouth was the hub of the festival with events also taking place in Carnarvon, Coral Bay and Onslow.

In recognition of the challenges in running an event of this size and complexity in a remote regional area, relevant state government agencies began planning early. They formed a comprehensive governance structure with high level representation from key stakeholders including the Department of Health, overseen by JTSI.

Visitor numbers to the region were anticipated to be in the vicinity of 20,500 people, placing a significant burden on local infrastructure and resources. The coinciding of the TSE with one of WA's busiest school holiday periods, together with the remoteness of the location and scale of the event across several local government areas, required a considered and strategic approach to ensure environmental health risks were adequately managed.

Safe public events, homes and public buildings

We coordinated several activities during the planning and operational phases, including:

- Executive Director Environmental Health appointed as Public Health Officer to the state Project Control Group to advise on public health matters
- member of the TSE Health Steering Group
- formation of the TSE local government working group to facilitate a coordinated approach to planning and preparation for the event across the region
- development of the 'Scoping Tool – Environmental Health Considerations' to identify those environmental health risks that required management to ensure an appropriate standard of public health and safety across the event
- undertook a detailed risk assessment of the TSE event
- completion of a public health readiness assessment to track the level of public health preparedness in the lead up to the event
- deployed 4 EHD staff to provide support to local government EHOs, liaise with other State government agencies and assess the execution of the TSE planning process
- attending debrief with State and local government agencies.

Overall, the event was considered to be a success with no major incidents. Public health risks were effectively identified and mitigated, significantly contributing to the delivery of a safe and successful event.

RTR 'Fitter Happier' radio interview on mould

On the 14 July 2022 Jaala Downes, Senior Scientific Officer from our Biological and Applied Environmental Health Unit discussed mould and dampness problems common in homes as part of the RTRFM 92.1 Fitter Happier radio program. Listen here.

Legionnaire's disease investigations

Of the 21 concluded investigations in cases of Legionnaires disease in the 2022–23 financial year, the sources of infection were identified in only 9 cases (a success rate of 43 per cent), while one case was contracted interstate and another case was contracted overseas.

Five cases were deemed to have contracted the illness from sources within their own homes.

Events operational data

	2022–23
Public events	
Events attended	11
Events the Department assisted in the planning and approval	35
Noteworthy events attended	
AFL games	
Ed Sheeran	
Red Hot Chili Peppers	
Lightscape	
Great Moscow Circus	
WA Day Festival	
Kings Park Concert Series	
Fridayz Live	
Ice Cream Factory	
Wildlands	
The Mezz, Rottnest	

Control of pesticide use, tobacco and personal appearance industries

Development assessment panel review

A review of our development assessment panel is currently progressing recommendations to streamline and digitise the process. This will improve assessment times and ensure compliance with record keeping requirements.

Development assessment operational data

	2022–23
Overview of EH advice provide to developments	
Average number of development assessments received per week	12
Average number of development assessments received per month	53
Total development assessments received	631
Individual EHD unit responses to development assessments	
Biological and Applied Environmental Health Hazards	35
Chemical Hazards	72
Food	6
Science and Policy	301
System Performance	301
Water Unit	603
Total	**1,318**

	2022–23
Stakeholders requesting EH advice for development proposals	
Western Australian Planning Commission	322
Local government	178
Other state governments	111
Other industry	3
Total	**614**
Types of proposals received as part of DAP	
Subdivision	298
Local planning strategy / local planning scheme	59
Structure plan / development plans / precinct plans	25
Region schemes and planning	36
Environmental approvals and licensing / Works approvals	48
Development approval applications	47

Tobacco compliance

A targeted compliance program for the illegal sale of e-cigarettes commenced in 2022–23. The compliance program was carried out in conjunction with the department's Medicines and Poisons branch and involved inspection of licensed and non-licensed premises, seizure of e-cigarettes and provision of education and advice about the illegal sale of e-cigarettes.

The Environmental Health Directorate managed the tobacco compliance portfolio until January 2023. Following this, Tobacco Compliance was transferred to the Public Health Regulation Directorate.

Tobacco operational data

Tobacco compliance (1 July 2022 – January 2023)	
Store inspections/visits	598
Tobacco enquiries	93
Warnings issued	3
New tobacco licences issued	187
Tobacco licences renewed	2,131

Managed community hazards

- Minimise mosquito-borne disease risks
- Reduced exposure to hazardous substances
- Mitigated impacts of environment health emergencies and emerging risks

Minimised mosquito-borne disease risks

Mandurah mosquito management course

The biennial 5-day mosquito management course was held in Mandurah in September 2022, attended by 48 participants from a broad range of locations and organisations including local and State government, environmental health consultants and other relevant stakeholders. The course provided participants with the knowledge and skills required to develop and implement a mosquito management program for their own jurisdictions. Lectures were presented on a range of mosquito management issues and participants gained hands-on experience during practical demonstrations of surveillance and control equipment, field site visits to collect mosquito larvae and adults, laboratory mosquito identification sessions, and group work on specific mosquito management scenarios.

Presenters at the course included experts from the Department of Health, NSW Health, local government mosquito management personnel, the Department of Agriculture, Forestry and Fisheries, and the pest control industry. There was a great deal of interest and focus among the participants with a very high level of satisfaction expressed in evaluations.

Regional mosquito management course

A regional mosquito management course was hosted by the City of Karratha in March 2023, proving to be an effective training opportunity for 17 participants from local governments and Aboriginal Health Service organisations in the Pilbara and Kimberley regions. The course was a shortened version of the full course tailored towards mosquito management in northern WA. An additional one-day training course was also run in November 2022 that focused on management of sewage lagoon infrastructure for mining company staff.


FIGHT the BITE
PROTECT YOURSELF

Minimised mosquito-borne disease risks

Japanese encephalitis virus response

Japanese encephalitis is a rare but serious disease, resulting in swelling of the brain, caused by the Japanese encephalitis virus (JEV). In March 2022, JEV was detected in the southeast of Australia for the first time and was declared a Communicable Disease Incident of National Significance.

Since that time, 45 confirmed or probable human cases of JE have now been reported in QLD, NSW, Vic, SA and NT since December 2022 (no cases have been reported from WA). In response, a multi-agency, one-health approach was adopted in WA to manage the risk of JEV, encompassing animal and human health, through evidence-based surveillance and response activities. The response involved collaboration between the EHD, Communicable Disease Control Directorate, Communications Directorate, PathWest, Department of Primary Industry and Regional Development, Public Health Units, Aboriginal health organisations and local governments.

We played a key role in conducting enhanced JEV surveillance activities throughout WA over 2022–23. We facilitated targeted surveillance by deploying 2 officers to northern WA for 7 months, to undertake mosquito sampling in the Kimberley and Pilbara regions. We also expanded existing trapping in southern WA to capture high-risk wetlands likely to support JEV vectors, vertebrate hosts and those situated in proximity to piggeries. Enhanced sentinel chicken surveillance continued across 21 permanent sites throughout WA with flocks bled and tested for JEV fortnightly, in addition to ad hoc sampling of domestic chicken flocks to increase sentinel chicken surveillance in regions outside of the Kimberley and Pilbara. EHD also established a Feral Pig Surveillance Program to monitor for JEV activity. The enhanced surveillance yielded WA's first evidence of JEV activity.

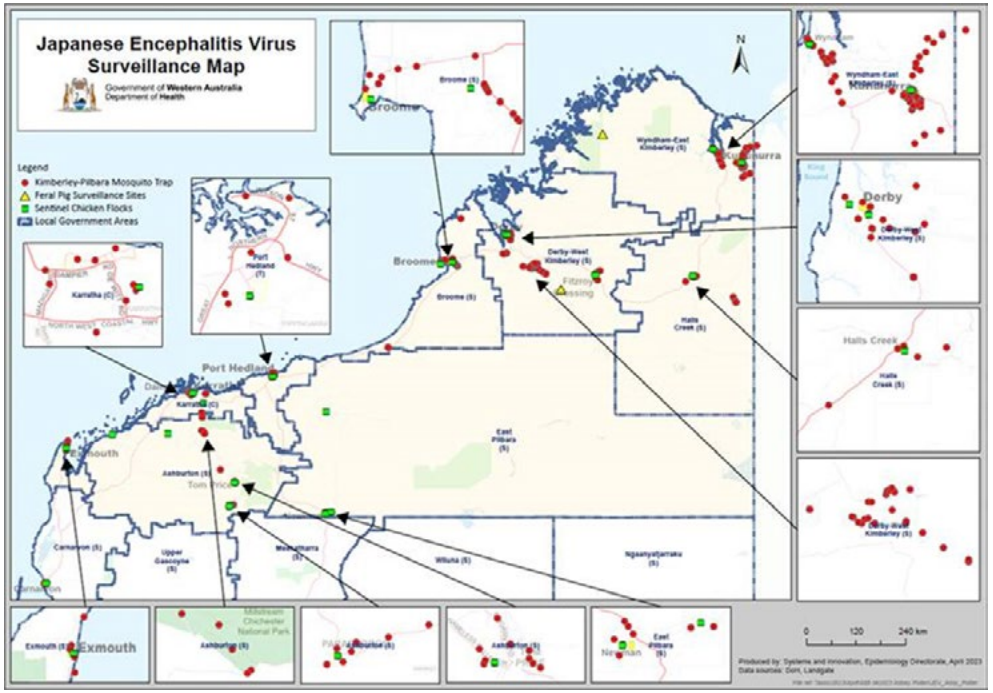
A Department-led incident management team and an EHD coordinated vector management response team were stood up to facilitate response activities including communications, enhanced surveillance, vector management, cultural control and vaccination. More than 650 bed nets and 6,500 units of repellent have been provided to protect those individuals in remote communities, considered most at-risk of acquiring a mosquito-borne disease. Since May 2022, almost 3,000 people at higher risk of JEV have been vaccinated by the program, and prevention messages have been translated into 4 local languages for Kimberley and Pilbara communities.

Significant mosquito-borne virus activity in northern WA

A significant increase in the activity of mosquito-borne flaviviruses including Murray Valley encephalitis (MVE) occurred in 2023, following heavy wet season rainfall and flooding in northern regions of WA which created ideal breeding conditions for mosquitoes. The sentinel chicken program managed by the EHD health first detected evidence of MVE virus activity this season in February in the Kimberley, and a media alert was issued immediately to warn residents and travellers to protect against mosquito bites. Widespread mosquito-borne virus activity continued to be detected in mosquitoes and sentinel chicken flocks across much of northern WA, and as far south as the Wheatbelt. Further media alerts were issued in March and April to advise of the disease risk spread and provide another reminder of the importance of avoiding mosquitoes.

MVE is a rare but potentially serious infection of the brain caused by the mosquito-borne MVE virus for which there is no vaccine or specific treatment. While the risk of getting infected and becoming sick is low, the illness caused by MVE can be severe and even deadly. There were 4 human cases of MVE acquired in WA in 2022–23 (the first since 2018 and most in one year since 2011), of which one was sadly fatal.

The EHD continues to work with local governments on surveillance, mosquito management measures and 'Fight the Bite' messaging. Significant resources, including mosquito repellent and bed nets were also deployed to Aboriginal Health Organisations to distribute to high-risk communities.



Dr Andrew Jardine, Managing Scientist from the EHD participated in a number of interviews to raise awareness about these mosquito-borne disease risks and how to protect yourself. These included:

- Channel 9 news
- GWN7 regional news
- ABC Pilbara – Regional Drive
- This podcast could save your life.

Minimised mosquito-borne disease risks

Review of CLAG funding scheme

The department conducted a consultation with local government on the operation and effectiveness of the Contiguous Local Authorities Group (CLAG) Mosquito Management Program. Formerly known as the CLAG funding scheme, this program helps local governments to manage the public health risks of mosquito borne disease.

Since the program was last reviewed in 2009, the number of CLAGs supported by the department with technical, advisory and financial support has risen to 20 across WA, comprising a total of 40 local governments. A changing climate, consecutive years of La Niña weather patterns, and more recently, the requirement for increased mosquito surveillance and response preparedness activities to mitigate the growing risk of JEV has heightened the importance of providing a responsive and innovative mosquito management program.

The consultation involved surveying participating and prospective local governments considering membership to better understand their views, requirements and expectations on the mosquito management program model and the administration of the program. Responses will help the department consider how best to support mosquito management within WA and participating CLAGs in an equitable and sustainable way.

An initial Consultation Summary Report of the data provided by local governments through the consultation process has been developed. Recommendations to improve the operation and effectiveness of the CLAG Program will be developed and implemented in time for the 2024–25 funding round.

Enhanced surveillance questionnaires

Of the 189 Ross River virus (RRV) cases reported to the department during the year, 125 (or 66 per cent of cases) were notified by the practising doctor. Of these, 52 (or 42 per cent of doctor notified cases) completed enhanced surveillance questionnaires.

Similarly, 31 Barmah Forest virus (BFV) cases were notified with 16 cases notified by the patients practising doctor (52 per cent cases). Of these, 6 patients completed enhanced surveillance questionnaires.

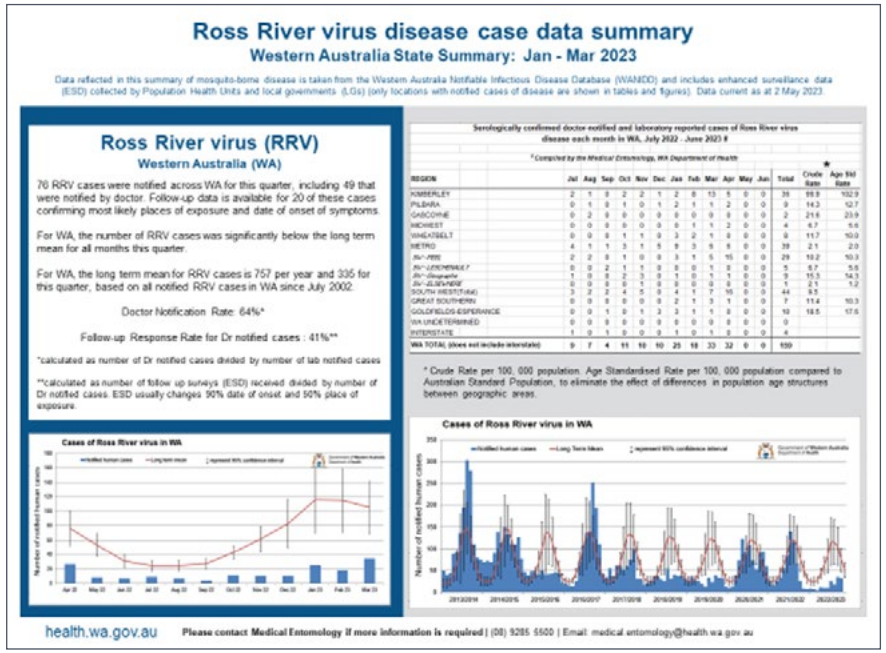
From the enhanced disease case surveillance data received, 83 per cent indicated that symptoms developed on a different date to that reported on the notification form, and 40 per cent were most likely infected at a location different to their residential address.

As exposure to biting mosquitoes usually occurs within the 3 weeks prior to the date of onset of symptoms, knowing the actual date of onset is vital to determine the most likely locations where patients may have been bitten by mosquitoes. These results indicate that enhanced surveillance questionnaires can dramatically improve data on patient's date of onset of symptoms and the likely location of infection.

Mosquito-borne disease quarterly reports

Our medical entomology team monitors and reviews human cases of mosquito-borne diseases notified to the department and recorded in the Western Australian Notifiable Infectious Disease Database (WANIDD). Follow-up surveys are sent out to local governments to enhance surveillance data by interviewing actual patients to clearly document the date of onset of disease symptoms and the most likely place of infection. The collected data is used to identify patterns of disease throughout WA, inform mosquito management activities and ascertain the need to release media statements.

Based on this enhanced data, quarterly reports summarizing human case data is prepared for each of the public health regions across WA and published on the department's website.


Ross River virus disease case data summary

Western Australia State Summary: Jan - Mar 2023

Ross River virus (RRV)

Western Australia (WA)

76 RRV cases were notified across WA for this quarter, including 49 that were notified by doctor. Follow-up data is available for 20 of these cases confirming most likely places of exposure and date of onset of symptoms.

For WA, the number of RRV cases was significantly below the long term mean for all months this quarter.

For WA, the long term mean for RRV cases is 757 per year and 335 for this quarter, based on all notified RRV cases in WA since July 2002.

Doctor Notification Rate: 64%*

Follow-up Response Rate for Dr notified cases : 41%**

*calculated as number of Dr notified cases divided by number of lab notified cases

**calculated as number of follow up surveys (ESD) received divided by number of Dr notified cases. ESD usually changes 90% date of onset and 50% place of exposure.

Serologically confirmed doctor notified and laboratory reported cases of Ross River virus disease each month in WA, July 2022 - June 2023 #

Compiled by the Medical Entomology, WA Department of Health

REGION	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total	Crude Rate*	Age Std Rate*
KIMBERLEY	2	1	0	2	2	1	2	8	13	5	0	0	36	99.9	102.9
PILBARA	0	1	0	1	0	1	2	1	1	2	0	0	9	14.3	12.7
GASCOYNE	0	2	0	0	0	0	0	0	0	0	0	0	2	21.6	23.9
MIDWEST	0	0	0	0	0	0	0	1	1	2	0	0	4	6.7	5.6
WHEATBELT	0	0	0	1	1	0	3	2	1	0	0	0	8	11.7	10.2
METRO	4	1	1	3	1	5	9	3	5	0	0	0	39	2.1	2.0
SW - PEEL	2	2	0	1	0	0	3	1	5	15	0	0	29	10.2	10.3
SW - LESCHENAULT	0	0	2	1	1	0	0	0	1	0	0	0	5	6.7	5.6
SW - Geographe	1	0	0	3	0	1	0	1	1	0	0	0	7	15.5	15.3
SW - ELSEWHERE	0	0	0	0	1	0	0	0	0	0	0	0	1	2.1	1.2
SOUTH WEST(TOTAL)	3	2	2	4	2	0	4	1	7	15	0	0	44	9.5	
GREAT SOUTHERN	0	0	0	0	0	0	2	1	3	1	0	0	7	11.4	10.3
GOLDFIELDS-ESPERANCE	0	0	1	0	1	3	3	1	1	0	0	0	10	18.5	17.5
WA UNCERTERMINED	0	0	0	0	0	0	0	0	0	0	0	0	0		
INTERSTATE	1	0	1	0	0	0	1	0	1	0	0	0	4		
WA TOTAL (does not include interstate)	9	7	4	11	10	10	25	10	33	32	0	0	109		

* Crude Rate per 100, 000 population. Age Standardised Rate per 100, 000 population compared to Australian Standard Population, to eliminate the effect of differences in population age structures between geographic areas.

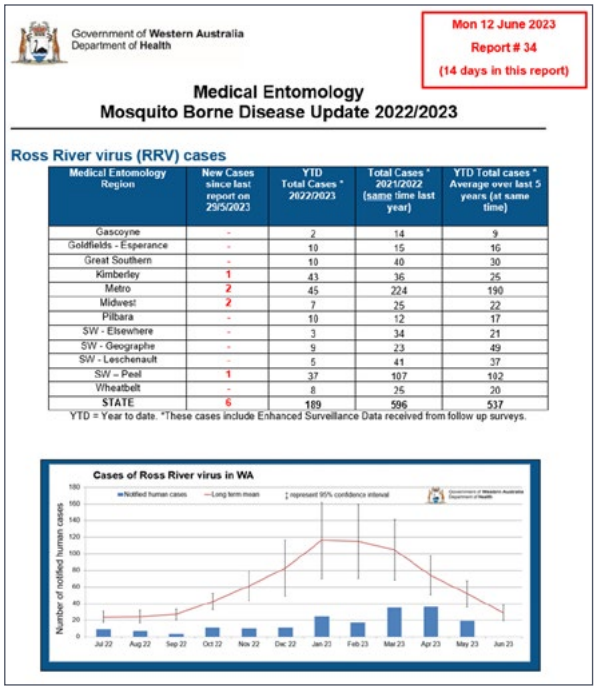
Cases of Ross River virus in WA

Cases of Ross River virus in WA

health.wa.gov.au Please contact Medical Entomology if more information is required | (08) 9285 5500 | Email: medical.entomology@health.wa.gov.au

Mosquito-borne disease weekly reports

We distributed mosquito-borne disease updates each week throughout the peak mosquito season in the south of the state, to all public health units, all CLAGs and relevant local governments in which the number of cases was above their long-term average. As case numbers have reduced, the updates moved to fortnightly distribution. Whilst mosquito-borne disease case data is made available in quarterly and annual reports and during CLAG updates, the weekly reports enabled local governments to be aware of increased mosquito disease within their jurisdiction. In 2023, this has also enabled more timely communication of more serious mosquito borne disease activity in the north of WA. These reports allow local governments to respond rapidly, providing enhanced surveillance and control in areas of concern, to reduce the burden of disease.


Government of Western Australia
Department of Health

Mon 12 June 2023
Report # 34
(14 days in this report)

Medical Entomology
Mosquito Borne Disease Update 2022/2023

Ross River virus (RRV) cases

Medical Entomology Region	New Cases since last report on 29/5/2023	YTD Total Cases * 2022/2023	Total Cases * 2021/2022 (same time last year)	YTD Total cases * Average over last 5 years (at same time)
Gascoyne	-	2	14	9
Goldfields - Esperance	-	10	15	16
Great Southern	-	10	40	30
Kimberley	1	43	16	25
Metro	2	45	224	190
Midwest	2	7	25	22
Pilbara	-	10	12	17
SW - Elsewhere	-	3	34	21
SW - Geographe	-	9	23	49
SW - Leschenault	-	5	41	37
SW – Peel	1	37	107	102
Wheatbelt	-	8	25	20
STATE	6	189	596	537

YTD = Year to date. *These cases include Enhanced Surveillance Data received from follow up surveys.

Cases of Ross River virus in WA

Minimised mosquito-borne disease risks

Cut grass often and keep it short infographic

Feedback from stakeholders indicated that long grass and unmaintained vegetation around houses and in the backyard was creating harbourage sites for mosquitoes during the wet season, and potentially increasing the risk of people getting bitten.

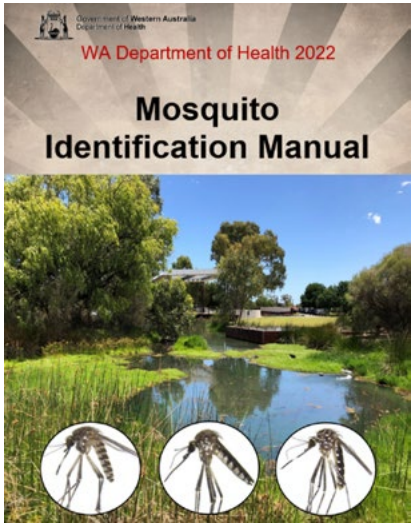
Therefore, we developed a new Fight the Bite infographic to promote the need to cut or mow grass and vegetation, to reduce the likelihood of mosquitoes seeking shelter around the home.

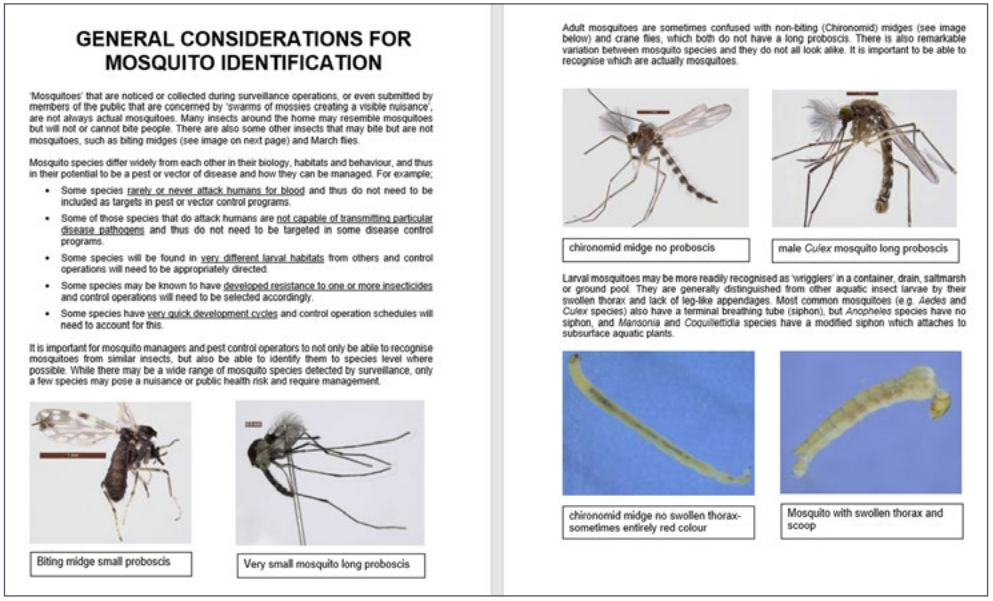
Differentiating mosquitoes vs midges factsheet

Our Medical Entomology team developed a factsheet to assist in differentiating between mosquitoes and midges. Environmental health staff and pest control operators need to be able to differentiate mosquitoes from similar insects, to determine whether the 'insects of concern' pose a public health risk. Often 'mosquito complaints' to local government are due to non-biting (hironomid) midges and are not mosquitoes.

Mosquito Identification Manual revised

The Mosquito Identification Manual was fully revised in 2022 to incorporate more photographs and keys, making the task of identifying mosquitoes more user friendly. These are published as hard copies and provided to participants at Mosquito Management Training Courses run by the EHD.





Mosquito team operational data

	2022–23
Mosquito operations	
Trapping runs (Southwest)	19
Total number traps	443
Total mosquitoes (SW)	96,787
Peel	29,311
Leschenault	16,321
Geographe	51,155
Trapping runs (SW JEV targeted program)	24
Total number traps (SW JEV)	145
Total mosquitoes (SW JEV)	5,984

	2022–23
Southwest surveillance program (All)	
Total sentinel chicken flocks	21
Serum samples tested	2,018
Chicken seroconversions	130
Enhanced surveillance flocks (opportunistic sites)	25
Serum samples tested	207
Chicken seroconversions – only 7 confirmed by rebleed (Crossing Falls, Kununurra)	29
Aerial Treatments	
Total number treatments	35
Total hectares	6,457
Stakeholder Engagement	
No LG funding applications assessed	20
Media statements issued	6
Mosquito management courses conducted	2

Reduced exposure to hazardous substances

Per-and poly-fluoroalkyl (PFAS) substances

Officers from the Chemical Hazards Unit attended a number of home visits in collaboration with the Department of Water and Environmental Regulation (DWER), to address health concerns related to discovery of a PFAS plume around Jandakot airport. There is no access to mains water supply and residents rely on ground and/or rainwater for drinking, washing and irrigation.

Meth and other illicit drug contamination – industry workshop and new WA guidance

We held an industry workshop on 5 December 2022, to provide participant feedback on draft WA Guidelines for Testing and Remediation of Methylamphetamine and Illicit Drug Contamination. Attendees primarily consisted of WA health system accredited illicit drug management service providers, other illicit drug experts and local government EHOs.

Feedback from the workshop allowed specific modifications and completion of new guidelines on investigation and remediation of both clandestine laboratories and residential properties impacted by smoke residue.

Dust concerns in Pinjarra

Over the last year there have been increasing concerns among the residents of Pinjarra about windblown dust from the nearby alumina refinery. DWER, as the regulator of the refinery, is undertaking investigations of the operations, including air monitoring in and around the town. Officers from Chemical Hazards were invited by DWER to attend a community meeting to discuss general health concerns and provide general health advice. The Department has also been asked to undertake a preliminary cancer or chronic disease cluster analysis – this was conducted by the Epidemiology Branch. As an ongoing issue, the Chemical Hazards team will assist in interpreting and communicating the results of both the DWER air monitoring and the cluster analysis.

Public health risks from smoking methylamphetamine in homes statement

The department published the Public Health Risks of Residues from Smoking Methylamphetamine in Homes Statement, which formally outlines WA's position on the nature and management from methylamphetamine (meth) smoking residues in homes. Although surface residues from smoking of methylamphetamine in residential properties generally represent a relatively low public health risk, the large number of people potentially exposed warrants specific and proportionate contamination management measures. We hosted a webinar to raise awareness on the position statement.

Contaminated Sites Act turns 20

You may remember the old 'Perth and Tram Station' at the eastern gateway to the Perth's CBD, that was replaced by the Perth Police Precinct after 1975. As was common practice at the time, the demolition waste was buried under the foundations of the new development. However, soon after completion of these shiny new offices, there were reports of strange and sickly odours in the basement, with officers complaining of persistent headaches and nausea. A 2001, investigation found buried fuel tanks, leaking pipes and widespread diesel contamination of the soils and shallow groundwater beneath the buildings. Eighteen months and an Auditor General's Report later, the *Contaminated Sites Act 2003* was born.

Today the Minister for the Environment (via DWER) is responsible for the administration of the Act, and the Minister for Health (via the Department of Health) must formally review and agree to all classifications and statutory notices made under it to ensure that public health is adequately protected.

Chemical Hazards have been fulfilling this role by providing more than 2,000 separate pieces of detailed written public health advice to DWER. Chemical Hazards assess public health risks from soil, air and land contamination, or impacts to potable groundwater supplies. Contamination may be from asbestos containing materials in soils, heavy metals, PFAS compounds, dioxins and/or pesticides. Petroleum and solvent vapour intrusion into buildings and landfill gas migration from landfill sites are also investigated. Chemical Hazards have also provided expert peer review of pollutant fate and transport models, Tier 2+ exposure assessments and toxicological reviews of novel and emerging pollutants.

The Act continues to be a driving force in the assessment and management of legacy contaminated sites. There are currently 26,191 lots classified under the Act of which 6,200 require clean up works and/or restrictions on use. In addition, 3,200 lots are currently undergoing investigations as part of the risk assessment process.

Mould in the air handling units of Perth hospitals

Mould detected in multiple air handling units at the Mount Private Hospital (February 2023) and Peel Health Campus (May 2023) generated considerable media attention and led to major service disruptions as patients were evacuated from affected areas. The chemical hazards team was consulted and provide general health advice and management options.

Specialist advice was given to ensure that standardised methods are employed to identify the sources or causes of the elevated dampness or humidity and remediate effectively. Where there is significant, or widespread contamination of buildings or mechanical ventilation components, prompt decontamination by a competent and qualified person is necessary to ensure the release of spores into occupied spaces is minimised.

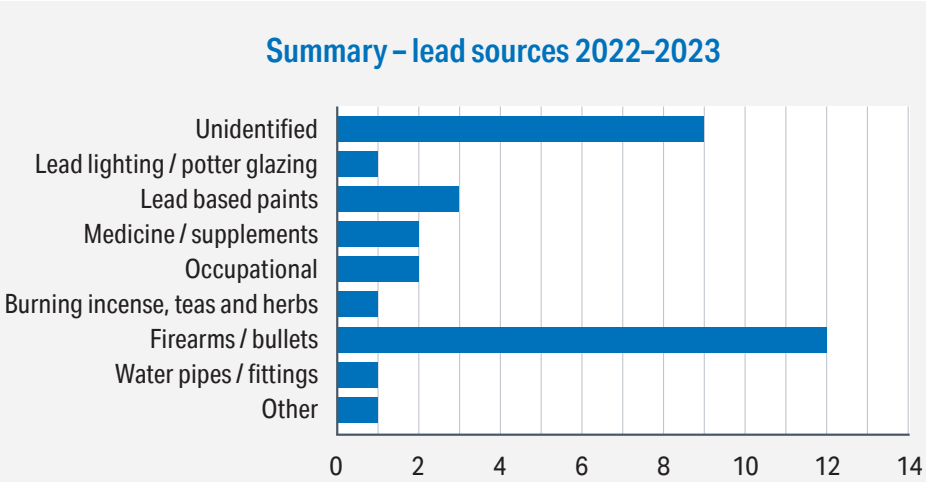
Reduced exposure to hazardous substances

Lead investigations

We followed up on 34 lead notifications. The notifications are referred by the Medical Regulatory Support Unit to the EHD who may engage with local government EHOs to assist with environmental exposure assessments, provide advice on lead source removal and how to reduce exposure to lead in the future.

Although it is not always possible to find the source of a lead exposure and confirm with laboratory analysis, the most likely reason for a persons elevated blood lead level can often be attributed to undertaking known lead-based activities or exposure to products known to sometimes contain lead. Some examples include, car batteries, ammunition, fishing sinkers, some imported cosmetics and jewellery.

The following chart provides a breakdown of suspected sources associated with lead notifications for 2022–23. The most common exposure source was the use of firearms. Other sources include lead-based paint (usually associated with renovation activities), complementary medicines and exposures that relate to a person's hobby or previous occupation.



Pesticide businesses electronic assessments

We implemented a pest management business electronic assessment process during 2022–23 to improve efficiencies with visiting and discussing regulatory requirements with businesses.

Contaminated sites/chemical hazards operational data

	2022–23
Contaminated sites	
Contaminated site applications assessed	110
Onsite contaminated site inspections	1
Classified contaminated sites that required our agreed sign off in partnership with the DWER	211
Provided expert evidence at SAT, LDAP,JDAP and Parliamentry inquiries	1
Average response time (DWER MoU 2006) in days	10
Lead notifications	
Elevated lead notification investigations	34

	2022–23
Pesticides licensing, registrations and renewal activities for pesticide management	
Pest management technician licences renewed	1,943
New pest management technician licences issued	480
Pest management business registrations renewed	630
New pesticide businesses	84
Vehicle inspections	15
Premises business audits	108
Pesticide related complaints investigated	24
Fumigation sites assessed	53
Fumigation sites health risk assessments	9
Illicit drugs	
Clandestine drug laboratories reported	15

Mitigated impacts of environmental health emergencies and emerging risks

Environmental Health support for Fitzroy Crossing flood recovery

Our Emergency Response Unit provided support to the department's overarching Kimberley flood response in January 2023. We liaised regularly with local EHOs to provide expertise and support during the emergency response and continued to be involved during the recovery phase. We assisted with sourcing supplies of mosquito repellent, mosquito control chemical products, mosquito nets, and hand sanitiser. The products were deployed to the region to aid in the recovery phase. The Shires of Broome and Derby West Kimberley were instrumental in the wider distribution of these items along with public awareness messaging and social media updates to advise of general environmental health risks during and after a flood emergency.

Thirty seven updated public resources, including flyers, videos, web content and factsheets, were published to support environmental health risk communications including:

- floods webpage updated – HealthyWA
- floodwater asbestos safety flyer
- mould can make you sick flyer
- floodwater tips for cleaning flyer
- mosquito bites can make you sick flyer
- mosquitoes can make you sick. protect yourself audio – plain English
- mosquitoes can make you sick. protect yourself – audio.

Several resources were translated into Kriol, Walmajarri and plain English to assist local Aboriginal people to managed health issues. A series of social media ads were also organised to raise awareness of health risks.

Our water experts liaised closely with the Water Corporation to mitigate public health impacts associated with loss of the town water supply at Camballin and loss of main sewer line at Fitzroy Crossing. They also provided advice to the Shire of Derby-West Kimberley in undertaking damage assessment of residential water and wastewater infrastructure. We also worked with the Department of Communities in streamlining the approval process for the on-site wastewater systems associated with portable shelters designed for emergency and disaster relief in applicable remote communities surrounding the Fitzroy Crossing township.

Two staff from our Emergency Response Unit visited Fitzroy Crossing in January, where they established a flood hub with representatives from government agencies involved in the recovery phase, including:

- Department of Health
- Department of Fire and Emergency Services
- Department of Communities
- Shire of Derby-West Kimberley
- National Emergency Management Agency.

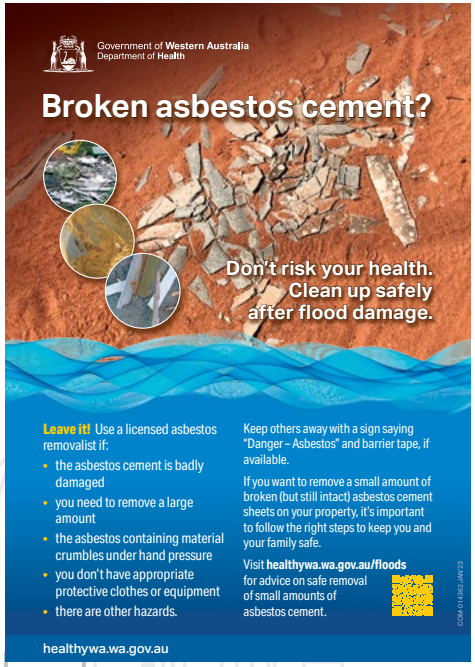
The hub provided a 'one stop shop' for residents to obtain information and advice regarding their properties and assistance available to them.

We provided training sessions on mould, mosquito management and healthy homes to local health and housing organisations, and attended community meetings to provide information to residents on mould and liaised with agencies involved in the recovery to address environmental health-related issues. One of our key roles is to provide specialist environmental health advice and support to local government during and in recovery from natural disasters and other emergencies

Kimberly Evasco, Scientific Officer from the Medical Entomology Team participated in an interview with Warringarri radio as part of the 'Staying Healthy in the Kimberley' program. This program has a focus on raising awareness about the importance of mosquito-borne disease risks. The interview can be listened to via SoundCloud (external site).

Senior Scientific Officer Dr Jay Nicholson was interviewed by Channel 10 News First Perth on the dangers of mosquito-borne disease following the floods in the West Kimberley and presented on the RTR Fitter Happier radio program, talking about mosquito-borne disease.

Mitigated impacts of environmental health emergencies and emerging risks



Organisational supports

Review of our quality management system

This year, we initiated a review of the EHD's internal quality management system (QMS). The primary focus of the QMS is developing standard operating procedures (SOPs) to guide our work and ensure processes are completed in an efficient and consistent manner.

This is the first comprehensive review of the QMS since we adopted it in 2017. We identified a number of improvements to streamline the system and enable ease of implementation. Progress has commenced on updating forms, SOPs, templates, registers and core guidance documents, which we anticipate will be completed in 2023–24.

WA Environmental Health Professional Review Board (WAEHPRB)

The WAEHPRB (on behalf of the Chief Health Officer) assesses and reviews overseas environmental health qualifications and experience in approving officers to work as an environmental health officer in WA. The board has an independent chair, with member representatives from the department, WA Local Government Association, Environmental Health Australia (WA), Curtin University and Edith Cowan University. It meets 4 times per year and participates with Environmental Health Australia in the accreditation of all environmental health courses within Australia (both undergraduate and postgraduate) to ensure national consistency.

In 2022–23, 7 overseas qualifications were approved and 11 courses were accredited at 7 universities.

Environmental Health local government indicators summary reports

Local governments were requested to report on a range of environmental health regulatory functions and environmental health risk management activities. Reports summarising the data for WA regions were released:

- East Metro
- Goldfields
- Great Southern
- Kimberley
- Midwest
- North Metro
- Pilbara
- South Metro
- South West
- Wheat belt.

Communication activities

Professional development

Our teams hosted or presented at a range of professional development events including:

Start date	Subject	Organising team(s)	Partner agencies	Course length	Location
14 September 2022	Events guideline update	BAEHH	Events Industry Association	2 hours	Perth
5 September 2022	Mosquito management course (5 day)	BAEHH	City of Mandurah	5 days	Mandurah
10 October 2022	Lecture to postgraduate Curtin University students on investigation of foodborne illness outbreaks	Food	Curtin University	2 days	Curtin University
27-28 October 2022	Great Southern regional EHO meeting (4 presentations and two Q&A sessions):'Six Pillars of Food Business Assessment'; 'Assessment of Non-Traditional/Novel Foods'; 'Horticultural Standards related to berries, leafy greens and melons' and 'Food Safety Management tools.'	Food	City of Albany	2 days	Albany
15 November 2022	EH webinar: Food safety management systems and Horticulture Standards	Food		2 hours	online
23 November 2022	Mosquito management course (1 day)	BAEHH	Rio Tinto	1 day	Perth
12 May 2022	Workshop for meth and illicit drug contamination management	Chemical Hazards		1 day	Perth and online
28 February 2023	Food safety management tools seminar	Food		2 hours	Shenton Park
2 March 2023	Food safety management tools webinar	Food		2 hours	Online
14 March 2023	EH webinar: Skin penetration regulatory controls and new procedures	BAEHH		1 hours	Online

Start date	Subject	Organising team(s)	Partner agencies	Course length	Location
14 March 2023	EH webinar: Meth smoke houses	Chemical Hazards		1 hour	Online
15 March 2023	Healthy homes after a flood	System Performance	Marra Worra Worra Aboriginal Corporation	2 hours	Fitzroy Crossing
17 March 2023	Food safety management tools and horticulture standards	Food	Shire of Augusta-Margaret River	2 hours	Margaret River
29 March 2023	Mosquito management course (3 day)	BAEHH	City of Karratha	3 days	Karratha
26 April 2023	Asbestos management masterclass	Chemical Hazards	Environmental Health Association (EHA) WA	1 day	Perth
27 April 2023	EH referrals and home health hardware checks	SPU	EHA WA	30 min	Perth
27 April 2023	Enhanced mosquito-borne disease surveillance in response to increased endemic and exotic risks in WA	BAEHH	EHA WA	20 min	Perth
28 April 2023	Environmental health risks and priorities for WA	EHD	EHA WA	20 min	Perth
28 April 2023	Mobile food vendor centralised register	BAEHH	EHA WA	20 min	Perth
28 April 2023	The Hester fires and associated HAZMAT response	Chemical Hazards	EHA WA	20 min	Perth
2 May 2023	Food safety management tools – school canteens	Food	Department of Education, School Canteen Association WA	1 hour	Online

Committee representation

Our team represents the Department of Health on a range of national, state, regional, metropolitan and local committees, groups and forums, which aim to steer the agenda of numerous environmental health issues relevant to WA.

Committee	Jurisdiction
Environmental Health general	
Environmental Health Standing Committee	National
Metropolitan EH Managers Group	Local
Central West EH Regional Group	Local
Eastern Goldfields EH Regional Group	Local
Great Southern EH Regional Group	Local
Mid-west EH Regional Group	Local
North West EH Regional Group	Local
Peel EH Regional Group	Local
South-West EH Regional Group	Local
Biological and Applied EH Hazards	
Mosquito Control Advisory Committee	State
Mosquito Control Association of Australia	National
National Arbovirus and Malaria Advisory Committee	National
Arbovirus Surveillance Committee	State
Mosquito and Arbovirus Research Committee	National
Events Industry Association of WA	State

Committee	Jurisdiction
Chemical Hazards	
Environmental Health Committee – Expert Reference Panel on Environmental Health (ERPEH)	National
Across Agency Asbestos Group	State
Smoke Management Working Liaison Group	State
Air Quality Coordinating Committee	State
Port Hedland Senior Officer Group	State
Department of Defence PFAS Task Force	Federal
enHealth Working Group on air quality	National
enHealth Risk Communication Working Group	National
Wittenoom Steering Committee	Local
Construction and Demolition (C&D) Stakeholder Reference Group	State
Pesticides Advisory Committee	State
Food	
Food Regulation Standing Committee	National
Implementation Subcommittee for Food Regulation	National
Australian Meat Regulators Working Group	National

Committee	Jurisdiction
Food Export Regulators Steering Committee	National
Food Incident Response Protocol Working Group	National
Food-Medicine Interface Working Group	National
Front of Pack Labelling	National
Jurisdictional Nutrition Food Regulation Group	National
Jurisdictional Recall Committee	National
Jurisdictional Technical Forum	National
Advisory Committee on Novel Foods	National
Policy Guideline on Food Labelling in relation to the Dietary Guidelines Working Group	National
Health Star Rating Implementation Working Group	National
Surveillance, Evidence and Analysis Working Group	National
Food Safety Management Tools Implementation Working Group	National
Horticulture Standards Implementation Working Group	National
Food Safety Culture Working Group	National
Egg Standards Implementation Working Group	National
FSANZ Expert Elicitation Panel	National
Australian Shellfish Quality Assurance Advisory Committee	National
WA Foodborne Illness Reduction Strategy Across-Government Advisory Group	State
Local Health Authorities Analytical Committee	Local

Committee	Jurisdiction
Science and Policy	
Public Health Planning Reference Group	State
Expert Reference Panel for Aboriginal and Torres Strait Islander Environmental Health (one of two enHealth subcommittees)	National
Pilbara Aboriginal Health Planning Forum	Regional
Goldfields Region Aboriginal Health Planning Forum	Regional
Goldfields Region Aboriginal Environmental Health Forum	Regional
Midwest Region Aboriginal Environmental Health Forum	Regional
Pilbara Aboriginal Environmental Health Forum	Regional
System Performance	
enHealth – Environmental Health Workforce Working Group	National
Sediment Task Force	State
Short-term accommodation registry	State
Sustainable Communities and Waste Hub	National
Water	
enHealth Aquatic Facilities Working Group	National
enHealth National Recycled Water Regulators' Forum	National
Water Quality Expert Reference Panel	National
National On-site Regulators Forum	National
Advisory Committee for the Purity of Water	State

Committee	Jurisdiction
Fluoridation of Public Water Supplies Advisory Committee	State
Remote Essential Municipal Services	Regional
Cockburn Sound Management Council	State
Lower Vasse River Management Advisory Group	Local
Results subcommittee of the Advisory Committee for the Purity of Water	State
Collaboration on Sewage Surveillance of SARS-CoV-2	National
Australian Standards Committee WS-027 Domestic Water Treatment Appliances	National
Australian Standards Committee CH-034 Materials In Contact With Drinking Water	National
Drinking Water Source Protection subcommittee of the Advisory Committee for the Purity of Water	State
Whole of government beverage industry working group	State

Publications

Examining the effectiveness of behaviour change techniques for improving safe egg handling behaviours: A randomised prospective experimental study. Food Control (2023) 143: 109285.

Jessica Charlesworth, Hayley Breare, Barbara A. Mullan, Henry Tan, Bree Abbott

Media campaigns aim to improve safe food handling behaviours; however, their efficacy is still being determined. As safe egg handling behaviours are among the more difficult safe food handling behaviours to change, media campaigns may benefit from the addition of behaviour change techniques to campaigns to improve efficacy. Thus, the aim of this study was to determine whether behaviour change techniques are effective for improving safe egg handling behaviours among consumers. One hundred and forty-eight participants, completed 2 online surveys, 2 weeks apart. Participants completed measures of safe egg handling knowledge, behaviour, intention, and other psychological variables in the first online survey. Participants were then randomly allocated to three groups, and either (1) watched a 30-s video advertisement designed to promote safe egg handling, (2) watched the 30-s video and completed behaviour change tasks, or (3) did not watch the video or complete the tasks. In the second online survey, all participants completed all measures again, excluding the intervention tasks. Findings indicated that behaviour change techniques were effective for improving knowledge and some psychological constructs, however, the behaviour change techniques were no more useful for improving behaviour than the video or mere participation in the study. The use of behaviour change techniques in safe egg handling media campaigns may be beneficial, though, further research is needed. Read here.

Examining the long-term effects of a safe food-handling media campaign. Food Control (2023) 149: 109690.

Jessica Charlesworth, Caitlin Liddelow, Barbara A. Mullan, Henry Tan, Bree Abbott

In Australia, food poisoning affects over 4.1 million people annually, with most cases occurring in domestic (i.e., household) environments. Strategies aimed at improving safe food-handling among the community have begun being implemented across Australia. Recently, the 'Play it Food Safe' mass media campaign by the Western Australian Department of Health was piloted and shown to have some effectiveness in improving safe food-handling behaviour among consumers following the campaign. However, little is known about whether these changes in safe food-handling behaviours can be maintained in the long-term. Therefore, the aim of this paper was to determine if the Western Australian 'Play it Food Safe' campaign could lead to long-term change of safe food-handling knowledge, behaviour, and related psychological constructs (i.e., habit, perceived risk, self-efficacy, and subjective norms) among consumers. Participants (N = 689) completed measures assessing their safe food-handling knowledge, behaviour, and psychological constructs, derived from psychological theories, following the conclusion of the 'Play it Food Safe' campaign that was re-run in Perth, Western Australia. Participants completed these measures again approximately 8 weeks later. Data were analysed to determine if there were any changes in these measures over time, or whether scores on these measures were maintained long-term. Results indicated that some psychological constructs improved over time, and knowledge was higher among participants who saw the campaign, however, behaviour remained the same. These findings show that the 'Play it Food Safe' campaign may be effective for increasing knowledge, and effective for improving some psychological constructs long-term, though further development of the campaign is needed for further impact on behaviour. Read here.

	2022–23
General communication activities	
Briefing notes to ADG / CHO	53
Briefing notes to DG	25
Briefing notes to Minister for Health	20
Briefing notes to Executive Director	52
Contentious issue briefing notes	4
Other briefing notes	2
Letters drafted for ADG/CHO signature (not including mail merges)	27
Letters drafted for DG signature (not including mail merges)	22
Letters for the Minister for Health's signature	3
Letters signed by Executive Director (not including mail merges or DAP letters)	70
Estimate briefing notes	2
Requests for legal advice	25
Ministerial activities by each team	
Directorate	1
BAEHH	3
Chemical Hazards	16
Food	36
Water	21
Science and Policy	18
System Performance	4
Other	1
Total Ministerial correspondence	**100**
Customer service	
Total number of calls recevied	11,642
Food	967
Water	1,942
Science and Policy	55
System Performance	1,903
Chemical Hazards	508
Biological and Applied EHH*	198
EH System Support	263
Referred to local government	428
Other**	5,378

* Biological and Applied EHH have their own direct line and not all calls go via the EHD Customer Service desk

** No details provided, referred to another agency, Team previously located in EHD but now located in another Directorate, or referred to another area in the DoH.

Financial overview

	2022–23
Own Sourced Revenue (EHD Unit)	
Pesticide licensing	$942,708
Waste water management	$19,804.50
BAEHH	$10,900.00
Food safety	$3,658.00
Total	**$977,070.60**
Funding source	
Commonwealth	$385,750
State Government	$20,071,311
Own source revenue	$977,071
Total	**$21,434,132**
EHD total expenditure	**$21,434,132**
Employments costs	$9,100,476
Other goods and services	$12,333,656
Total	**-**
Workforce distribution	
System Performance	17%
Food	17%
Water	15%
SPU	13%
Chemical Hazards	11%
BAEHH	20%
Workforce costs	
System Performance	$1,566,332
Food	$1,508,906
Water	$1,352,048
SPU	$1,205,267
Chemical Hazards	$983,680
BAEHH	$1,808,649
EH Directorate	$675,589
Number full-time employees	68
EHD Employee Expenditure	$9,100,476
Financial highlights for the year (list 3–4 major project expenditures)	
Total spent Aboriginal EH	**$8,364,995**
Total spent Japanese Encephalitis (JEV)	**$521,185**
Total spent moquito management (non-JEV)	**$2,973,421**

This document can be made available in alternative formats.

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