



Government of **Western Australia**  
Department of **Health**  
**Public and Aboriginal Health Division**

# A new regulatory framework for drinking water in Western Australia

## Consultation Paper



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## **Disclaimer**

Although every care has been taken to ensure accuracy in the preparation of this paper, the information has been produced as general guidance for persons wishing to make submissions. The contents of this paper do not constitute legal advice or legal information and do not constitute Government policy. This paper should not be used as a substitute for a related Act or professional advice.

This document is intended to serve as the basis for further discussion with interested stakeholders.

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## Executive Summary

The key focus of this review is to obtain feedback on the most effective option to manage the public health risks associated with the supply of drinking water in Western Australia (WA).

With the introduction of the *Public Health Act 2016* in WA, the provisions in the *Health (Miscellaneous Provisions) Act 1911* relating to the safety of drinking water, must be reviewed and either repealed or replaced with new regulations in accordance with the new regulatory framework.

This paper will provide a summary of the current regulatory framework for drinking water in WA and the formal arrangements the Department of Health (DOH) has with other regulatory authorities and drinking water service providers. The issues with the current regulatory framework will also be discussed to highlight the improvements that can be made to manage the public health risks associated with the supply of drinking water in WA more effectively.

As part of the regulatory review process, this consultation paper presents three options for the new regulatory framework:

- **Option 1: Maintain the status quo**, that is to replicate as far as is practicable the relevant provisions of the *Health (Miscellaneous Provisions) Act 1911* in regulations under the *Public Health Act 2016* and retain the arrangements with Department of Water and Environmental Regulation to condition the license of any drinking water service providers to enter into a binding Memorandum of Understanding with the DOH.
- **Option 2: Deregulate the drinking water supply industry**, that is to repeal without replacement the relevant provisions of the *Health (Miscellaneous Provisions) Act 1911* and to remove the requirement (in the licence issued under the *Water Services Act 2012*) for licensed water service provider to enter into a binding Memorandum of Understanding with the DOH. Drinking water suppliers will be allowed self-regulate and will only be bound by the general public health duty provisions of the *Public Health Act 2016*.
- **Option 3: Develop a new public health regulatory framework for drinking water** under the *Public Health Act 2016* which in part reflects the obligations currently set out in the binding Memorandum of Understanding for Drinking Water Quality between the DOH and each licensed water service provider. The new regulatory framework will also introduce a holistic approach to the management of public health risks associated with the supply of drinking water that would apply to the delivery chain from the catchment to consumer for all drinking water supplies in WA, including those not currently captured by other regulatory frameworks.

DOH's preferred option is to develop a new public health regulatory framework for drinking water under the *Public Health Act 2016* (Option 3). A proposed regulatory framework that aligns with the principles and provisions of the *Public Health Act 2016* is also presented in this paper for feedback.

The five (5) key features of the proposed regulations are:

1. Set out the registration and licensing framework for drinking water suppliers.
2. Clearly defined health-related standards for the quality of drinking water.
3. General risk management obligations placed on drinking water suppliers that are based on public health risk analysis, due diligence, hazard management and auditing.
4. Transparency and public disclosure of water quality information.
5. Provide flexibility to ensure that the framework is not overly onerous for smaller drinking water suppliers.

## Consultation process

### How we will consult

This consultation paper has been created to allow the Western Australian Department of Health to seek feedback, ideas and suggestions from the community and stakeholders regarding a proposed new regulatory framework for managing public health risks associated with drinking water in Western Australia.

Stakeholder consultation promotes transparency, improves proposal design and ensures risks are identified and managed early. It also allows for innovative ideas to be proposed for consideration. You are invited to read through the following paper and provide feedback, either via the DOH's [consultation hub](#) and selecting "see all open consultations", or by making a written submission to the Department.

This consultation provides an opportunity for the water industry, other parties supplying drinking water, related stakeholders and the public to raise issues, concerns and opportunities about the proposed options and provide advice on how any proposed regulatory framework may affect you, your business or the community.

This paper contains a series of questions related to proposed inclusions in the regulatory framework. You do not need to comment on all the questions, and may wish to focus on those areas that are important to you. You are also welcome to provide additional feedback that may not be related to any of the questions. It would be helpful if you could explain the reasons behind your suggestions, and where possible evidence to support your views (such as statistics), estimates of any costs that may relate to the proposal, and examples of solutions.

Information provided will be collated into a publicly available report on the Department of Health website. Please note that because your feedback forms part of a public consultation process, the Government may quote from your comments in future publications, or may publish your submission in whole or in part. If you prefer your name and organisation to remain confidential, please indicate that in your submission.

As submissions made in response to this paper may be subject to Freedom of Information requests in accordance with the [Freedom of Information Act 1992](#), please do not include any personal or confidential information that you do not wish to become available to the public.

## How to make a submission

### ***Consultation Hub***

The consultation is accessible at the DOH's consultation hub, <https://consultation.health.wa.gov.au/>. Select "see all open consultations", then "A new regulatory framework for drinking water in Western Australia".

The direct link to the consultation is:

<https://consultation.health.wa.gov.au/environmental-health-directorate/drinking-water-regulations>

The consultation closes on 30 August 2019.

### ***Written submissions***

Written submissions must be received by 5pm (WST) on Friday 30 August 2019.

Written submissions can be lodged by email as a PDF (preferred) to [publichealthact@health.wa.gov.au](mailto:publichealthact@health.wa.gov.au) or hard copies can be mailed to:

Drinking Water Consultation  
Environmental Health Directorate  
Department of Health WA  
PO Box 8172  
Perth Business Centre WA 6849

Late submissions will not be considered.

## For further information

Email: [publichealthact@health.wa.gov.au](mailto:publichealthact@health.wa.gov.au)

Website: <http://ww2.health.wa.gov.au/Improving-WA-Health/Public-health/Public-Health-Act/Regulation-review-program>

## List of Definitions

### Appropriate enforcement agency

In relation to the provision in which the term is used, means the enforcement agency prescribed by the regulations for the purposes of that provision.

### Auditor

A suitability skilled reviewer, whose principal role is to assess a licensable drinking water supplier's performance against the regulatory framework.

### Critical control point

An activity, procedure or process at which control can be applied, measured and the effective operation of that control is essential to prevent a hazard that may arise to human health or reduce the hazard to an acceptable level.

### Drinking water

Water intended primarily for human consumption, either directly, as supplied from the tap, or indirectly, in beverages, ice or foods prepared with water, but which may have other uses. Also sometimes referred to as potable water.

### Drinking water supplier

A person who supplies drinking water to another person.

### Drinking water treatment process

Any process that is applied to water that is supplied, or is to be supplied, as drinking water, which is intended and designed to beneficially render the water suitable for supply as drinking water, including any physical, chemical or microbiological treatment, filtration or disinfection of water, or the containment of drinking water in a water tank, reservoir or other containment structure.

### Drinking water quality standards

In the context of this paper the term drinking water quality standard refers to a microbiological, chemical, physical or radiological measured parameter of the quality of water supplied to consumers.

### Enforcement order

An enforcement order issued under Part 14 Division 3 of the *Public Health Act 2016*

### Hazard

A biological, chemical, physical or radiological agent that has the potential to cause harm.

### Hazardous event

An incident or situation that can lead to the presence of a hazard.

### Improvement notice

An improvement notice issued under Part 14 Division 2 of the *Public Health Act 2016*.

### Licensable source water supplier

A person who supplies water intended for human consumption to a drinking water supplier.

### Licensable drinking water supplier

A person who supplies drinking water to another person by means of reticulated conduits to any premises that is not under the management or control of the drinking water supplier.

### Non-drinking water

Water that is not intended for drinking. Also sometimes referred to as non-potable water.

### Premises

As defined in Section 4 of the *Public Health Act 2016*. Premises includes:

- (a) land (whether vacant or not); and
- (b) land covered by water, whether permanently or temporarily or from time to time; and
- (c) the whole or any part of a building or other structure, of whatever type and whether of a permanent or temporary nature; and
- (d) a vehicle.

### Registrable drinking water supplier

A person who supplies drinking water to another person on a premises not connected to a drinking water supply of a licensed drinking water supplier.

### Regulatory framework

Services of interlinked regulatory activities designed to ensure that the quality of a service or activity supplied in Western Australia meets specified standards and that risks are managed

### Risk management plan and system

Holistic and comprehensive management strategy for the quality of drinking water from catchment to tap. It considers all management and operational procedures and practices implemented to ensure that the drinking water supplied is safe, that it continuously meets specified standards and that the drinking water supplier is managing hazards and risks to the water supply with due care and diligence. This incorporates water quality information plans and systems and incident management plans and systems.

### Water Carter

Business or legal person who undertakes the transport of water (bulk water cartage). This service may or may not be for remuneration.

### Water service provider

A person who has been granted a licence to provide a water service under the *Water Services Act 2012*.

## List of Abbreviations

<b>ADWG</b>	Australian Drinking Water Guidelines
<b>AS/NZS</b>	Joint Australian and New Zealand Standards
<b>CHO</b>	Chief Health Officer
<b>DOH</b>	Department of Health WA
<b>DPLH</b>	Department of Planning, Lands and Heritage
<b>DWER</b>	Department of Water and Environment Regulation
<b>DWRMP</b>	Drinking water risk management plan
<b>ERA</b>	Economic Regulation Authority
<b>MOU</b>	Memorandum of Understanding
<b>NATA</b>	National Association of Testing Authorities, Australia
<b>NHMRC</b>	National Health and Medical Research Council <sup>1</sup>
<b>PDWSA</b>	Public drinking water source area
<b>WHO</b>	World Health Organisation

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<sup>1</sup> Details at: [www.nhmrc.gov.au/](http://www.nhmrc.gov.au/)

# 1 Introduction

Safe drinking water is a fundamental human right and a determinant of good health. Communities have a right to expect that their drinking water is safe to drink and that there are reliable systems in place to ensure that their health is protected.

The implementation of the [Public Health Act 2016](#) (Public Health Act) provides a rare opportunity for an assessment of public health risks relevant to the quality of drinking water supplies, to determine the appropriate management measures.

## 2 Objectives

The DOH proposes to establish a new regulatory framework via the provisions of the Public Health Act to manage the public health risks associated with the supply of drinking water. The proposed regulatory framework will be an improvement to the current arrangements that DOH has in place with drinking water service providers and smaller drinking water suppliers.

The DOH currently requires adherence to best practice quality management by entering into a MOU with a water service provider who is licenced under the *Water Services Act 2012*. The *Water Services Act 2012* is administered by the ERA and the requirement to enter into a MOU with DOH is a condition of receiving a licence pertaining to the supply of drinking water.

In comparison to the prescriptive provisions in the current *Health (Miscellaneous Provisions) Act 1911* (Health (MP) Act), the proposed framework under the Public Health Act introduces a more proactive and risk-based approach to the management of public health risks associated with the supply of drinking water.

The principal objectives of the proposed drinking water quality regulatory framework are to:

- Protect public health in Western Australia, in relation to the quality of drinking water;
- Create a consistent and clear state-wide regulatory framework for drinking water quality;
- Establish a comprehensive risk management framework for drinking water quality that covers the critical aspects from catchment to consumer;
- Provide clarity regarding drinking water incident management;
- Ensure that drinking water suppliers are accountable and are transparent in their undertakings.

To achieve this, the regulatory framework needs five (5) key features:

1. Clearly defined roles and responsibilities for both the drinking water suppliers and enforcement agencies.
2. Clearly defined health-related standards for the quality of drinking water.
3. Risk management obligations placed on drinking water suppliers that are based on public health risk analysis, due diligence, hazard management, incident management and auditing
4. Transparency and public disclosure of water quality information
5. Provide flexibility to ensure that the framework is not overly onerous for smaller drinking water suppliers.

This consultation paper describes features of the current regulatory framework in relation to drinking water quality in Western Australia, examines how the quality of drinking water is regulated in comparable jurisdictions in Australia and internationally, presents a number of regulatory options and describes in more detail the proposed regulatory framework.

The paper also poses a number of questions on which stakeholder feedback is sought.

## 3 Background

### 3.1 Drinking water quality

A wide range of substances can potentially be found in drinking water affecting its quality and causing adverse health outcomes. These characteristics, compounds or constituents normally fall into the following categories of pathogenic (disease-causing) microorganisms (including bacteria, viruses, cyanobacteria and protozoa), hazardous chemicals, algae toxins and radiological parameters. Detailed information about these hazards, their prevalence and health significance can be found in the “*Australian Drinking Water Guidelines*” (ADWG) and similar reference works (WHO, 2011)<sup>2</sup>.

The most common and widespread public health risk associated with water-borne illnesses is drinking water contamination, either directly or indirectly, by human or animal excreta and the microorganisms contained in faeces. Drinking contaminated water or using it in food preparation may cause illness. The illnesses they cause can vary in severity from mild gastroenteritis to severe and sometimes fatal diarrhoea, dysentery, hepatitis, cholera or typhoid fever.

Disinfection is the single process that has had the greatest impact on drinking water safety. There is clear evidence that the common adoption of chlorination of drinking water supplies in the 20th century was responsible for a substantial decrease in infectious diseases. Applied properly, disinfection will kill all bacterial pathogens and greatly reduce numbers of viral and most protozoan pathogens. Combined with protection of water sources from human and livestock waste, disinfection can ensure safe drinking water (ADWG).

The paradox of assessing drinking water quality is that substances that make the water unappealing are often in themselves harmless, whilst the greatest health risk usually derives from microorganisms or chemicals that are not visible and have no taste. This means that some parameters are of significance to health (e.g. microorganisms, heavy metals, pesticides and disinfection by-products), while others generally are of aesthetic significance only (e.g. iron or physical parameters such as colour or hardness).

International and national drinking water quality guidelines have been developed over time, providing advice to practitioners on the levels of the characteristics, compounds and constituents found in water. The guidelines usually also incorporate concepts of due diligence and effective risk management for drinking water suppliers. These concepts are used across Australia and the world to ensure the drinking water industry provides water of a quality that will not cause health issues.

Case studies of past failures of drinking water around the world are shown in section 5.

### 3.2 Drinking water standards and the Australian Drinking Water Guidelines

The ADWG is national guidance on drinking water standards and risk management published by the National Health and Medical Research Council (NHMRC) with the latest revision published in August 2018<sup>3</sup>.

The ADWG is intended to provide a framework for good management of drinking water supplies that, if implemented, will assure safety at point of use, and has been developed after consideration of the best available scientific evidence and a comprehensive public consultation process. It is designed to provide an authoritative reference on what defines safe drinking water, how it can be achieved and how it can be assured. ADWG is concerned both with safety from a health point of view and with aesthetic quality.

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<sup>2</sup> Details at: [www.who.int/water\\_sanitation\\_health/publications/2011/dwg\\_guidelines/en/](http://www.who.int/water_sanitation_health/publications/2011/dwg_guidelines/en/)

<sup>3</sup> Details at: [www.nhmrc.gov.au/guidelines/publications/eh52](http://www.nhmrc.gov.au/guidelines/publications/eh52)

The ADWG is not a mandatory standard in its own right. However, it provides a basis for determining the quality of water to be supplied to consumers. These determinations need to consider the diverse array of Australian regional or local factors, and take into account economic, political and cultural issues, including customer expectations and willingness and ability to pay (usually in relation to aesthetic criteria). The ADWG are intended for use by the Australian community and all agencies with responsibilities associated with the supply of drinking water, including catchment and water resource managers, drinking water suppliers, water regulators and health authorities.

The guiding principle of the ADWG is “*The greatest risks to consumers of drinking water are pathogenic microorganisms. Protection of water sources and treatment are of paramount importance and must never be compromised.*”

Currently the ADWG provides health related guidance on 20 types of pathogenic microorganisms, 20 types of toxic blue green algae, 26 inorganic chemicals, 10 disinfection by-products, 24 organic chemicals and 120 pesticides. It also provides guidance on a range of aesthetic criteria, such as water colour, temperature, pH, hardness, taste and odour and a number of other chemicals with no health significance in the levels typically encountered in drinking water supplies.

When guideline values are used in assessing overall performance, such as when presented in an annual report; the aim is to assess whether management strategies are effective. The assessment is used to identify emerging problems and to determine priorities for improvement. Resulting actions will generally be applied in the longer term.

In addition to the guideline values the ADWG sets out a 12 element framework for management of drinking water quality. This framework is considered best practice for system management of drinking water supplies. There are four general areas in which each of the elements falls (Table 1). The framework was developed to guide the design of a structured and systematic approach for the management of drinking water quality from catchment to consumer, to assure its safety and reliability.

The framework incorporates a preventive risk management approach. It includes elements of hazard analysis and critical control points (HACCP), ISO 9001 and AS/NZS 4360:2004, but applies them in a drinking water supply context to support consistent and comprehensive implementation by drinking water suppliers and others involved in the catchment to tap delivery chain. The framework is considered best practice and many other countries and the WHO have adapted it to inform their management frameworks.

In this context:

- A **hazard** is a biological, chemical, physical or radiological agent that has the potential to cause harm.
- A **hazardous event** is an incident or situation that can lead to the presence of a hazard (what can happen and how).
- **Risk** is the likelihood of identified hazards causing harm in exposed populations in a specified timeframe, including the severity of the consequences.

The distinction between hazard and risk is important: attention and resources need to be directed to actions selected primarily on the basis of level of risk, rather than just the existence of a hazard.<sup>4</sup>

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<sup>4</sup> Details at: Section 3.2.3 of the “*Australian Drinking Water Guidelines*”

**Table 1 Summary of the framework for management of drinking water quality**

<b>COMMITMENT TO DRINKING WATER QUALITY MANAGEMENT</b>	
Element 1	Commitment to drinking water quality management
<b>SYSTEM ANALYSIS AND MANAGEMENT</b>	
Element 2	Assessment of the drinking water supply system
Element 3	Preventative measures for drinking water quality management
Element 4	Operation procedures and process control
Element 5	Verification of drinking water quality
Element 6	Management of incidents and emergencies
<b>SUPPORTING REQUIREMENTS</b>	
Element 7	Employee awareness and training
Element 8	Community involvement and awareness
Element 9	Research and development
Element 10	Documentation and reporting
<b>REVIEW</b>	
Element 11	Evaluation and audit
Element 12	Review and continual improvement

The guideline values, along with the risk management framework set out in ADWG, thus can be regarded as defining a water supply system that, based on current knowledge, is safe to drink over a lifetime; that is, it constitutes no significant risk to health.

Historically, Western Australia has not formally referenced the ADWG except in health local laws and in the advice from the state mining engineer that states “Where mining companies and mining operators provide drinking water to employees (and in some cases also to associated communities), there is an obligation to comply with the ‘Guidelines for Drinking Water Quality in Australia 2004,’ as published by the National Health & Medical Research Council.

This aspect is discussed in more detail in Section 3.3.

### **3.3 Current regulatory arrangements for drinking water in Western Australia**

The quality of drinking water in WA is currently managed through a number of WA Government agencies including the [DOH](#), the [Department of Water and Environmental Regulation](#) (DWER), the [Department of Planning, Lands and Heritage](#) (DPLH) and the [Economic Regulation Authority](#) (ERA).

Water source assessment, allocation, licensing, management and protection are administered by DWER. Drinking water source quality is supported by the constitution of Public Drinking Water Source Areas (PDWSAs) and the implementation of Drinking Water Source Protection Plans. These cover most drinking water sources in WA, but not all.

The proclamation of PDWSAs and the recommended land uses within them are managed through the [Metropolitan Water Supply, Sewerage, and Drainage Act 1909](#), the [Metropolitan Water Supply, Sewerage and Drainage By-laws 1981](#), the [Country Areas Water Supply Act 1947](#), the [Country Areas Water Supply by-laws 1957](#), the [Strategic policy: Protecting public drinking water source areas in Western Australia](#) (Department of Water, 2016) and Water Quality Protection Notes no [25](#), [36](#), [75](#), [76](#).

The Western Australian Planning Commission (supported by DPLH) has developed [State Planning Policies](#) that support the protection of water quality in PDWSAs. Those policies rely upon the land use compatibility tables set out in [Water Quality Protection Note no. 25](#).

For sources outside of PDWSAs, or alternative sources, no legislative source quality management measures are currently in place with the guidance provided in [Water Quality Protection Note no. 41](#).

The only legislation administered by the DOH that is relevant to the quality of drinking water supplies is in Part IV, Division 7 of the *Health (Miscellaneous Provisions) Act 1911*, which specifies that polluting a water supply is an offence, allows local government to take action to prevent or stop the pollution of a water supply and allows for a source of water supply to be closed if deemed unfit for human consumption. This aspect is discussed further in section 4.4.

NB – The Minister for Health is responsible for the [Fluoridation of Public Water Supplies Act 1966](#). For the purposes of this Consultation Paper, the fluoridation of drinking water supplies for dental health purposes does not fall within the scope of this review.

### **Licensed water service providers**

Regulation of drinking water in WA is currently divided into licensed and non-licensed providers, pursuant to the *Water Services Act 2012* licensing framework that is administered by the ERA. Under this Act, the ERA issues licences for the delivery of water services including supply, irrigation, sewerage and drainage. A water supply service is a service that supplies water, whether potable or not, by means of reticulated conduits and other appropriate water supply works.

The ERA licenses larger water service providers such as the Water Corporation, Aqwest and Busselton Water, as well as Rottnest Island Authority, Hamersley Iron Pty Ltd, Robe River Mining Co Pty Ltd, Aquasol Pty Ltd and Lancelin South Pty Ltd.

These service providers supply drinking water to a total of 259 localities in WA, as listed in Table 2. The Water Corporation is WA's largest water supplier, providing drinking water to 251 localities across WA, including the Perth metropolitan area and most regional communities in WA. Rio Tinto (Hamersley Iron) supplies 3 localities (Paraburdoo, Tom Price and Dampier) and the remainder supply one locality each (Bunbury, Busselton, Rottnest Island, Pannawonica and Lancelin South respectively). Further details on water service licence holders can be found on the [ERA Water Licensing Website](#).

DOH currently has an agreement with ERA to condition the license of water service providers that supplies a drinking water service to establish a binding Memorandum of Understanding for Drinking Water Quality with the DOH. The MOU requirements are based on the Australian Drinking Water Guidelines 12 element framework and ensure that the drinking water that is supplied meets relevant quality standards. As a result, the drinking water supplied by water service providers in WA complies with the current health-related requirements.

**Table 2: Licenced drinking water service providers in WA**

Licenced Water Service Provider	Localities serviced
Water Corporation	251
Rio Tinto (Hamersley Iron)	3
AqWest (Bunbury Water Corporation)	1
Athena Water Solutions Pty Ltd	1
Busselton Water Corporation	1
Lancelin South Pty Ltd	1
Moore River Water Services Pty Ltd	1
Rio Tinto (Robe River) (Pannawonica)	1
Rottnest Island Authority	1
Aquasol Pty Ltd ##	0
Peel Water Pty Ltd	0
<b>Total</b>	<b>261</b>

## 0 localities services as at March 2019

### Other water service providers

Under some other circumstances, the Minister for Water may grant an exemption from licensing, if the exemption is not contrary to the public interest<sup>5</sup>. This has occurred to date in relation to the supply of drinking water at Windy Harbour (Shire of Manjimup), Mundaring Christian College, Smiths Beach Resort near Yallingup, Karri Mia Caravan Park near Denmark and on Garden Island, and in relation to non-potable water services provided at a number of locations in WA, including non-potable water provided to Murchison Settlement.

Likewise, mine sites in WA that supply water in such a way that they are providing a (drinking) water supply service within the meaning of the *Water Services Act 2012* are exempted from licensing requirements.

Further, not all circumstances require a licence under the *Water Services Act 2012* in the first place. Some activities that do not require a licence under this Act are:

- Where a person provides water to themselves within the boundaries of a single lot to a single dwelling (e.g. rainwater tanks, single-lot recycled water systems, private bores, farms)
- watering of public open spaces by local councils from council bores
- transporting water or sewerage by cart, truck or tanker
- intermediaries through whom the service is provided by a third party, such as a shopping centre where water is delivered to individual tenants
- mine dewatering, excluding any subsequent on-supply of the mine dewater to other parties
- geothermal water supply services, where water is supplied for heating or cooling and is then returned to the point of supply.

<sup>5</sup> Details at:

[www.water.wa.gov.au/urban-water/water-services/water-service-licensing-and-licence-exemptions](http://www.water.wa.gov.au/urban-water/water-services/water-service-licensing-and-licence-exemptions)

In most cases these exemptions mean that the drinking water regulatory framework as set out under MOU's for licensed water service providers can not apply. This means that most other drinking water providers in WA, such as caravan parks, roadhouses, camps, small or remote communities, mine sites and other exempted bodies listed above that supply drinking water and are not licensed, need to be monitored directly by DOH, separately to the MOU process applicable to licensed water service providers set out above.

They are thus not subject to the same regulation and auditing procedures as licenced providers, but rather are managed through a variety of ad hoc management measures. These measures are managed as best as possible by the DOH, through either Local Government environmental health officers, by direct reporting by mine sites, or by the Department of Communities (Housing) under the Remote Essential and Municipal Services program.

Where drinking water is supplied on crown land or by a Commonwealth agency, Commonwealth legislation rather than State legislation applies. Situations where this is the case are defence facilities located in WA. Oil, gas and similar facilities located further than 3 nautical miles off the coast of WA are also not covered.

The supply of drinking water at accommodation facilities in WA is presently covered by the *Occupational Safety and Health Regulations 1996*, relevant Health Local Laws, section 150 of the *Health (Miscellaneous Provisions) Act 1911* and the *Caravan Parks and Camping Grounds Regulations 1997*, but these legislation do not set detailed requirements about the quality of drinking water supplied.

Finally, the supply of drinking water at private residential properties of a domestic nature is not covered by any statewide public health regulatory framework, regardless of whether that water originated from a water service provider, or privately from that propriety (e.g. via local bore or rainwater tank). In some cases some local government authorities have set local laws requiring rainwater tanks on properties to be clean and maintained, or for bores to meet certain minimum design requirements. Technical guidance material is also available publicly<sup>6</sup>.

Table 2 summarises the current situation where drinking water is supplied to consumers under circumstances other than directly by a licensed water service provider.

When considering how drinking water is supplied, the facility types shown in Table 3 (many of which are food premises) broadly fall into three categories:

- Those that supply drinking water that they received from a licensed water service provider, which then, due to the scale of the facilities or volume of water required, needs to be stored or further treated in some way;
- Those that obtain their own drinking water, usually from local bores or rainwater tanks, because they are not connected to a licensed water supply from a water service provider; or
- Those where there is no drinking water supply (either no supply of any kind, or there is a non-potable supply), with drinking water obtained by means such as bottled water etc.

The DOH has limited ability to fully scope the extent of these supplies in WA, or the quality of water provided at the premises. In most instances, premises that are not connected to a licensed water supply are often located in remote areas, or regional areas outside of towns supplied with drinking water.

Nonetheless, the majority of drinking water supplied in WA is from licensed water service providers and complies with the current health-related requirements. Based on present knowledge, the majority of drinking water provided at sites such as mine sites, remote Aboriginal communities, or locations obtaining drinking water from a licensed water service provider, also

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<sup>6</sup> Details at: [www.healthywa.wa.gov.au/Articles/U\\_Z/Water-tanks-on-your-property](http://www.healthywa.wa.gov.au/Articles/U_Z/Water-tanks-on-your-property)

complies with the current health-related requirements. However the degree of confidence in this statement may be reduced due to the more ad hoc nature of the current regulatory framework.

The quality of drinking water provided at the other types of facilities is not systematically measured at present.

### **3.4 Current regulatory arrangements for food in WA**

The quality of drinking water that is used or supplied by a food business, either directly to customers, used in food or beverage preparation, used in cleaning of food preparation surfaces or utensils, or provided as packaged ice or bottled water (including spring water) is customarily covered by food safety regulatory frameworks in Australia.

A food business is a business, enterprise or activity that includes the handling of food intended for sale or the sale of food. This includes all food manufactures and businesses such as restaurants, road houses, bottled water manufactures and ice manufacturers.

In WA, water quality for water used in food businesses is managed through the [Food Act 2008](#) and the [Food Regulations 2009](#). The *Food Act 2008* adopts the [Food Standards Code](#). This code requires that all food businesses use water of drinking water quality as specified in the Australian Drinking Water Guidelines.

Where a food business is connected to a licenced water provider it is assumed that the water that is so supplied will be of drinking water quality. Where a food business receives water from a water supply that isn't licenced, the food business usually must provide water quality details and proof of how the quality will be maintained when applying for business approval.

The Food Act and Regulations are enforced by local governments who may test the quality of the water at a food business from time to time as part of their enforcement activities. It is generally expected that it is the responsibility of business owners to prove to food safety enforcement agencies when asked, that the water they are using meets appropriate quality standards.

The *Food Act 2008* specifies that it does not apply to a water supplier in respect to the supply of water for human consumption through a reticulated water system.

Any regulatory framework for drinking water must be compatible with the food safety regulatory framework applicable in WA.

**Table 3 Summary of relevant legislation for situations where drinking water is supplied other than from licensed water providers**

<b>Facility type</b>	<b>Person type</b>	<b>Legislation</b>	<b>Responsible Agency</b>
<b>Accommodation</b>	Staff/workers	<i>Occupational Safety and Health Regulations 1996</i>	Department of Mines, Industry Regulation and Safety
	Visitors / persons staying in the accommodation	Health Local Laws	Local Governments
		Section 150 of the <i>Health (Miscellaneous Provisions) Act 1911</i>	Department of Health Enforced by Local Governments
<b>Aged care facilities</b>	Staff and residents	<i>Aged Care Act 1997 (Cth)</i>	Federal Government Department of Health
<b>Caravan parks and camping grounds</b>	Visitors / persons staying in the park or grounds	<i>Caravan Parks and Camping Grounds Regulations 1997</i>	Department of Local Government, Sport and Cultural Industries Enforced by Local Governments
<b>Public hospitals, and other health care facilities</b>	Staff, users, patients and visitors	Western Australian Health Facility Guidelines for Engineering Services 2006	Department of Health
<b>Private hospitals, and other health care facilities</b>	Staff, users, patients and visitors	Western Australian Health Facility Guidelines for Engineering Services 2006	Department of Health
<b>Domestic household self-supply</b>		Health Local Laws	Local Governments
<b>Mine sites (mine sites, accommodation villages and mine site airports)</b>	Staff / workers working at the mine site	<i>Mines Safety and Inspection Regulations 1995 and the Occupational Safety and Health Regulations 1996.</i> Advice from the State Mining Engineer	Department of Mines, Industry Regulation and Safety
	Staff / workers / visitors staying at the employer provided accommodation	<i>Mines Safety and Inspection Regulations 1995 and the Occupational Safety and Health Regulations 1996.</i> Advice from the State Mining Engineer	Department of Mines, Industry Regulation and Safety
<b>Oil and gas facilities onshore and within 3 nautical miles of land</b>	Staff / workers working at the mine site	<i>Mines Safety and Inspection Regulations 1995 and the Occupational Safety and Health Regulations 1996.</i> Advice from the State Mining Engineer	Department of Mines, Industry Regulation and Safety

Facility type	Person type	Legislation	Responsible Agency
	Staff / workers / visitors staying at the employer provided accommodation	<i>Mines Safety and Inspection Regulations 1995</i> and the <i>Occupational Safety and Health Regulations 1996</i> . Advice from the State Mining Engineer	Department of Mines, Industry Regulation and Safety
<b>Shops</b>	Staff	<i>Occupational Safety and Health Regulations 1996</i> .	Department of Mines, Industry Regulation and Safety
	Visitors	No apparent legislation	
<b>Local Government Facility (e.g. community centres, sports facilities)</b>	Staff	<i>Occupational Safety and Health Regulations 1996</i> .	Department of Mines, Industry Regulation and Safety
	Visitors	No apparent legislation	
<b>Remote Aboriginal Communities – REMS</b>	Residents	Health Local Laws (if the community is not on crown land)	Local Governments
		Remote Essential and Municipal Services (REMS - Not legislated)	Department of Communities
<b>Remote Aboriginal Communities – Non-REMS</b>	Residents	Health Local Laws (if the community is not on crown land)	Local Governments
<b>Remote Aboriginal Communities – Not supplied</b>	Residents	Health Local Laws (if the community is not on crown land)	Local Governments
<b>Regional Airport (Public facility managed by or for a Shire)</b>	Staff	<i>Occupational Safety and Health Regulations 1996</i>	Department of Mines, Industry Regulation and Safety
	Persons using the airport	No apparent legislation	
<b>Prisons</b>	Staff	<i>Occupational Safety and Health Regulations 1996</i>	Department of Mines, Industry Regulation and Safety
	Prisoners	Standard Guidelines for Corrections in Australia 2012	Western Australian Department of Corrective services
<b>Schools</b>	Staff	<i>Occupational Safety and Health Regulations 1996</i>	Department of Mines, Industry Regulation and Safety

Facility type	Person type	Legislation	Responsible Agency
	Students	No apparent legislation	
<b>School camps</b>	Camp staff	<i>Occupational Safety and Health Regulations 1996</i>	Department of Mines, Industry Regulation and Safety
	Persons using and staying at the camp	No apparent legislation	
<b>Roadhouses</b>	Staff	<i>Occupational Safety and Health Regulations 1996</i>	Department of Mines, Industry Regulation and Safety
	Food business	<i>Food Act 2008</i>	
	Accommodation	No apparent legislation	
	Other persons using road house facilities	No apparent legislation	
<b>National parks</b>	Persons using or staying at the park	No apparent legislation	
<b>Ports and bunkering</b>	Ships receiving water	No apparent legislation	
<b>Temporary water supply – Events</b>		Guidelines for concerts, events and organised gatherings 2009	Department of Health and Local Governments
<b>Temporary water supply – Temporary Worksites</b>	Workers	<i>Occupational Safety and Health Regulations 1996</i> Section 3.16.	Department of Mines, Industry Regulation and Safety
<b>Temporary water supply – Emergencies</b>		No apparent legislation	
<b>Toilet facilities</b>	Users	No apparent legislation	
<b>Water Carters</b>		Guidelines for the bulk cartage of drinking water 2015	Department of Health

## 4 Issues with the current regulatory framework

### 4.1 Lack of health specific legislation covering the supply of drinking water

The DOH currently requires adherence to best practice quality management by entering into a MOU with a water service provider who is licenced under the *Water Services Act 2012*. The *Water Services Act 2012* is administered by the ERA and the requirement to enter into a MOU with DOH is a condition of receiving a licence pertaining to the supply of drinking water. This current arrangement is pragmatic and relies on a good collaborative relationship between the ERA and the DOH, but means that public health provisions are subordinate to a water licensing framework, rather than having public health provisions as a valuable or intrinsic social right.

Furthermore, the licensing framework under the *Water Services Act 2012* either exempts or is not designed for the supply of drinking water in circumstances other than that contemplated by its licensing provisions. As indicated in Section 3, this means that there are a large number of situations in WA where an MOU under a licence cannot cover the public health risks involved, because the supply in question has not been licensed.

Whilst there is no systemic evidence of unsafe drinking water supplies across WA, this ad hoc arrangement means that the current system outside of the MOU's is vulnerable, with the potential to eventually pose health risks to visitors and users of various supplies. Even so, this deficiency means that there are a number of smaller systems in WA for which the quality of drinking water is not known with any degree of reliability.

The risks associated with this legislative gap can be mitigated by a DOH health specific regulation for the quality of drinking water supplies.

### 4.2 Lack of transparency in setting standards and regulatory obligations

Whilst DOH has adapted the ADWG as best as it can to the management of drinking water safety in WA, the fact remains that there has been no transparency or external oversight in this process, or comparability of the system applied via the MOU's for water service providers and the more ad hoc system applied for other drinking water suppliers.

This also means that it may be intrinsically more difficult to generate public confidence in the current drinking water quality regulatory framework compared to a better one. This problem can be overcome by developing a regulatory framework that has been systematically established under a legislative process and which would follow best practice principles about the design of regulatory frameworks, and that establishes accountabilities and a balance for the regulator, as well as the regulated.

### 4.3 MOU system vs an auditing system

As part of meeting their requirements of the MOU each licenced water service provider that supplies drinking water is required to provide the DOH with:

- A Drinking Water Risk Management Plan;
- A quarterly Water Quality Report;
- Incident reports as and when incidents occur; and
- An annual report that is available to the public.

The DOH:

- Reviews the Plans and provide advice
- Reviews the Water Quality Reports
- Reviews the annual reports.
- Deals with incidents as needed
- Run regular mock incident workshops.
- Reviews the MOU at regular intervals

In addition the DOH and the licenced water service provider have regular meetings to discuss drinking water quality supply and management. This is a fairly intensive process and can be onerous and time consuming for DOH staff. Within this system the DOH is currently not undertaking checking or auditing to ensure that appropriate records are being kept, plans are being kept up to date, and that monitoring and other requirements are being met.

Auditing and checking is a key part of the ADWG 12 element framework for risk management. Implementing auditing and checking is in accordance with the WA State Government's red tape reduction principles.

By having a system where the DOH approves risk management plans rather than a system where the DOH (or other qualified auditor) audits the implementation of those plans, there is a risk of the DOH being implicated in situations where something goes wrong, or generates an unrealistic approach whereby every future risk needs to be accounted for in advance.

The status quo, whilst pragmatic, is thus incompatible with good regulatory design.

#### **4.4 Lack of enforcement options**

The current DOH public health risk management system is as specified by Part IV *Health (Miscellaneous Provisions) Act 1911* – Division 7, or provisions pursuant to the MOU's. Thus the current public health risk management system for drinking water supply only has two enforcement options.

1. Close down a polluted water source under the *Health (Miscellaneous Provisions) Act 1911*.
2. Work with the ERA and DWER to prosecute a licenced water supplier for failing to meet the conditions of their licence under the *Water Services Act 2012*.

Enforcement option 1 is a one size fits all reactive option which cannot be scaled in response to the scale of the problem/issue. This power has only ever been rarely used and essentially requires the problem to have escalated to such a stage that immediate closure of the water supply in question is the only viable option. Closing down a polluted water source is a reactive measure.

It is preferable to manage the public health risks associated with drinking water supply through a regulatory framework which encourages industry to know their systems and to manage the public risks through appropriate treatment design and the implementation of risk management plans. Some sort of continuation of this power is recommended to ensure that the Chief Health Officer or DOH can manage situations where the supply of drinking water is such that it poses a risk to public health, either in an immediate sense or a longer term sense.

In enforcement option 2 the DOH cannot enforce the *Water Services Act 2012*, but rather has to work with the ERA to prosecute. This has not been done to date. Option 2 is also unable to deal with immediate risks and is, similarly, a reactive measure, albeit on a longer timeframe than Option 1.

As the above enforcement options only apply to reactions to incidents or long term issues, at the moment DOH does not have the regulatory ability to deal with lower level breaches of requirements, such as inadequate reporting or disclosure obligations. DOH adequately manages this presently via the reporting protocols set out under the MOUs and other voluntary reporting arrangements, but this is not viable in the long term, nor does it represent a well-designed regulatory framework or incident reporting or incident management framework.

If the DOH creates its own public health focussed regulatory framework it can set out clearly the situations which require reporting, situations which may constitute an offence, set out the penalties for committing an offence and set out earlier steps to prevent the situation escalating in the first place. This can be achieved by providing for an escalating series of responses for the Chief Health Officer and/or the DOH with clear accountabilities.

#### **4.5 Alignment with the *Public Health Act 2016***

The *Public Health Act 2016* is now law in WA. The *Public Health Act 2016* provides a flexible and proactive framework that includes a set of tools to regulate any given risk to public health. Ensuring the quality and safety of drinking water supplies in WA aligns with the objects of the Act to promote and improve public health and well-being in the community, and to prevent disease, injury, disability and premature death and to reduce the health inequalities in public health of disadvantaged communities. As part of the implementation of the *Public Health Act 2016* all regulations created under the previous *Health (Miscellaneous Provisions) Act 1911* are to be reviewed and then repealed or replaced in accordance with new regulatory framework provided by the *Public Health Act 2016*.

#### **4.6 Alignment with regulatory frameworks in other jurisdictions**

Across Australia, most State and Territory regulatory agencies (which is usually the health department in that jurisdiction, usually in conjunction with that jurisdiction's water regulator) have specific drinking water legislation which sets quality standards for drinking water and uses the ADWG 12 element framework for managing risks associated with the quality of drinking water.

Under most jurisdictional legislation and arrangements within Australia, the responsibility of water suppliers ends at the point of supply to the customer, typically the water meter. It should be noted that, whilst the ADWG framework incorporates responding to and evaluating consumer complaints about water quality, it does not set or recommend numerical benchmarks for this metric.

Whilst there is some variation Australia-wide in how it is applied and who it is applied to, arising from the slightly differing circumstances in each State, the similarities outweigh the differences, especially when it comes to reliance on the guidance set out in the ADWG and similar reference works and incident management protocols. The Australian regulatory frameworks are set out in Section 6. The United Kingdom and New Zealand regulatory frameworks are set out in Section 7.

Whilst the current system in WA as best as it can adopts the ADWG, and there have been limited quality exceedances experienced and no major incidents affecting consumers of drinking water supplied by licensed water service providers since the MOU system has been in place, a new regulatory framework is recommended to bring WA in line with the rest of Australia.

## 5 Failure of drinking water regulatory frameworks - case studies



### Sydney Water Crisis NSW Australia 1998

The 1998 Sydney water crisis involved *Cryptosporidium* and *Giardia* contamination of the water supply system of Greater Metropolitan Sydney, between July and September 1998. The contamination was caused by low-quality raw water entering the dam. Boil water notices were issued before the contamination event made anyone sick.

The contamination was attributed to moderate rainfall in July, followed by heavy rainfall in August and September (after decreasing storage levels since mid-July 1997) which caused pulses of the raw water to enter the dam.

The crisis was exacerbated because responsibility, management and response requirements were unclear. As a result of the crisis, the Sydney Catchment Authority was created in 1999 assuming control of Sydney's catchments and dams, while Sydney Water maintained responsibility for water treatment and distribution and for sewage collection, treatment and disposal (McClellan, 1998a, McClellan, 1998b).



### Havelock North Water Supply Contamination New Zealand 2016

In August 2016, there was a major outbreak of campylobacteriosis in Havelock North. It affected more than 5000 people and three deaths were linked to the contamination. The cause was determined to be contamination of a pond that is in close proximity to the Havelock North water supply bores. The pond was contaminated by sheep faeces from three surrounding paddocks after a large rainfall event.

The reason that this resulted in drinking water contamination is that the Hastings District Council who supplies drinking water to consumers in Havelock North believed that the Te Mata aquifer was a confined aquifer and the water was secure from contaminants and, as such, the District Council did not treat water drawn from it.



### Flint Water Crisis Michigan USA Ongoing

The Flint water crisis began in 2014 when the drinking water source for the city of Flint, Michigan was changed. No risk analysis of the new source was undertaken and the potential of the new source to corrode water pipes was not picked up. The new source and lack of action to assess the risks resulted in the water causing lead from ageing pipes to leach into the water supply, leading to over 100,000 residents being potentially exposed to high levels of lead, a significant neurotoxin, in the drinking water.

A federal state of emergency was declared in January 2016 and Flint residents were instructed to use only bottled or filtered water for drinking, cooking, cleaning, and bathing. As of early 2017, the water quality had returned to acceptable levels; however residents were instructed to continue to use bottled or filtered water until all the lead pipes have been replaced, which is expected to be completed no sooner than 2020.

It is estimated that between 6,000 and 12,000 children have been exposed to drinking water with high levels of lead and they may experience a range of serious health problems. Due to the change in water source, the percentage of Flint children with elevated blood-lead levels may have risen from about 2.5% in 2013 to as much as 5% in 2015. (Hanna-Attisha et al., 2016)



### Walkerton E. Coli Outbreak Ontario Canada 2000

In 2000 the drinking water supply for the community of Walkerton (population approximately 5,000) was contaminated with the pathogenic O157:H7 strain of *E. coli* bacteria. This outbreak caused seven people to die and 2,300 people became ill. The water supply, drawn from groundwater, became contaminated from farm runoff into a water well.

It was found that the Walkerton Public Utilities Commission operators engaged in a number of improper operating practices, including failing to use adequate doses of chlorine, failing to monitor chlorine residuals daily, making false entries about residuals in daily operating records, and misstating the locations at which microbiological samples were taken.

The Ontario Government was also blamed for not regulating water quality and not enforcing the guidelines that had been in place. Key recommendations touched on source water protection as part of a comprehensive multi-barrier approach, the training and certification of operators, a quality management system for water suppliers, and more competent enforcement. As a result, the province of Ontario has incorporated these requirements into new legislation.

## 6 Regulatory frameworks in other jurisdictions in Australia

### Queensland

[Water Supply \(Safety and Reliability\) Act 2008](#) and the [Public Health Act 2005](#) and [Public Health Regulations 2018](#)

Through the regulations Queensland Health and the Queensland Water Supply Regulator:

- Make it an offence to supply unsafe drinking water
- Set out testing/monitoring requirements and quality standards
- Require Local Governments to regulate private suppliers
- Require all water suppliers to register

### New South Wales

[Public Health Act 2010](#), [Public Health Regulation 2012](#), [Water Industry Competition Act 2006](#) and the [Water Industry Competition \(General\) Regulation 2008](#)

Through these pieces of legislation the NSW Department of Health, the Office of Water and the Department of Primary Industries:

- Provide the Chief Health Officer with powers to act when deemed necessary
- Require licencing of drinking water suppliers
- Require quality assurance programs which adhere to the 12 element ADWG framework
- Require drinking water risk management plans

### Northern Territory

[Public and Environmental Health Act 2011](#), the [Water Supply and Sewerage Services Act 2000](#), the [Guidelines for Private Water Supplies 2012](#) and the [Guidelines for Drinking Water Transport 2011](#).

Through the legislation the NT Department of Health and the NT Utilities Commission:

- Allow for the creation of Drinking Water Regulations (as yet not created)
- Require water suppliers to be licenced
- Make it an offence to pollute a water supply

The NT have endorsed ADWG and require operations to have a water supply management plan

### ACT

[Public Health Act 1997](#), [Public Health Regulation 2000](#) and [Public Health \(Drinking Water\) Code of Practice 2007](#)

Through these pieces of legislation the ACT Department of Health:

- Provide protection of the water supply from pollution
- Allow for the Chief Health Officer to act when deemed necessary
- Require water utilities to follow the ADWG 12 element framework
- Provide clear quality standards and other requirements to ensure that Drinking water provided is safe for human consumption.

### Victoria

[Safe Drinking Water Act 2003](#) and the [Safe Drinking Water Regulations 2015](#)

This Department of Health Act and the Regulations are based on the ADWG 12 element framework for water management including:

- Creation and implementation of a risk management plan
- Setting quality standards and monitoring requirements
- Reporting requirements
- Audits and inspection of drinking water providers

### South Australia

[Safe Drinking Water Act 2011](#) and the [Safe Drinking Water Regulations 2012](#)

The Act and the Regulations are based on the implementation of the ADWG 12 element framework for drinking water quality management and include:

- Registration of drinking water providers
- Implementation of a risk plan
- Provision of water quality results to consumers
- Audits and inspections of drinking water providers.

### Tasmania

[Public Health Act 1997](#) and the [Drinking Water Quality Guidelines 2015](#)

The TAS Department of Health uses the guidelines to:

- Require a water supplier undertake risk management using the 12 element framework
- Require the creation of Drinking Water Risk Management Plans
- Require monitoring
- Give powers in case of contamination or pollution
- Require auditors and allow for independent auditors

## 7 Selected international regulatory frameworks

### World Health Organization

[Guidelines for Drinking Water Quality Fourth Edition 2011](#)

These guidelines advocate a risk management framework similar to ADWG to ensure there is:

- quality objectives
- monitoring and assessment
- system management

### United Kingdom

[The Water Supply \(Water Quality\) Regulations 2016](#)

Requires that “water is free from any microorganisms and parasites and from any substances which, in numbers or concentrations, constitute a potential danger to human health.”

Based on the WHO Guidelines and have strict requirements for:

- monitoring and analysis
- public reporting of data
- use of treatment chemicals and materials in contact with water
- actions that must be taken if a standard is exceeded.

### New Zealand

[Health Act 1956](#)

- requires drinking-water suppliers to take all practicable steps to ensure they supply an adequate supply of drinking-water that complies with the New Zealand drinking-water standards;
- requires drinking-water suppliers to introduce and implement water safety plans;
- ensures drinking-water suppliers take reasonable steps to contribute to the protection from contamination of sources from which they obtain drinking-water;
- requires officers appointed by the Director-General of Health to act as assessors to determine compliance with the Act and to have their competence internationally accredited;
- requires record keeping and publication of information about compliance;
- provides for the appropriate management of drinking-water emergencies;
- improves enforcement by providing an escalating series of penalties for non-compliance.

## 8 Regulatory options investigated

The three (3) regulatory options that have been considered by the DOH for the management of public health risks associated with the supply of drinking water were:

- **Option 1: Maintain the status quo**, that is, replicate as far as is practicable the relevant provisions of the *Health (Miscellaneous Provisions) Act 1911* in regulations under the *Public Health Act 2016* and retain the arrangement with DWER to condition the license of any drinking water service providers to enter into a binding Memorandum of Understanding with the DOH.
- **Option 2: Deregulate the drinking water supply industry**, that is, repeal without replacement the relevant provisions of the *Health (Miscellaneous Provisions) Act 1911* and to remove the requirement (in the licence issued under the *Water Services Act 2012*) for licensed water service provider to enter into a binding Memorandum of Understanding with the DOH. Drinking water suppliers will be allowed to self-regulate and will only be bound by the general public health duty provisions of the *Public Health Act 2016*. (Refer to Section 9.11 for details on the general public health duty)
- **Option 3: Develop a new public health regulatory framework for drinking water** under the *Public Health Act 2016* which in part reflects the obligations currently set out in the binding Memorandum of Understanding for Drinking Water Quality between the DOH and each licensed water service provider. The new regulatory framework will also introduce a holistic approach to the management of public health risks associated with the supply of drinking water that would apply to the delivery chain from the catchment to consumer for all drinking water supplies in WA, including those not currently captured by other regulatory frameworks.

In summary, the first option will merely replicate the current regulatory framework, with its current flaws and compromises, and not be likely to improve the quality or management of drinking water in WA.

Given the importance of a safe drinking water supply, both to individuals and to the community, the second option will not be able to adequately address the public health risks associated with drinking water supply.

To align WA with the rest of Australia and to ensure that the public health risks associated with the supply of drinking water are managed appropriately the DOH proposes to progress option 3 and make new regulations under the *Public Health Act 2016*.

The following section will discuss the proposed regulatory framework.

### Questions for consultation\*

5. Please indicate your preferred option for managing public health risks associated with drinking water supply. Why is this your preferred option?

\*Questions 1 to 4 (stakeholder details) will be in the online consultation survey.

## 9 Proposed drinking water regulatory framework

The proposed regulations will set out the critical aspects that need to be addressed to achieve safe and reliable supply of drinking water and replace the current arrangements DOH has with drinking water service providers. The proposed regulations will also align with other regulations associated with drinking water that are currently administered by other government agencies, including the *Water Services Act 2012*. As the regulations are made under the Public Health Act, it must give regard to the principles set out in the Public Health Act. In addition, the Public Health Act has a number of provisions that can be used to set in place mechanisms to manage and prevent public health risks.

The five (5) key features of the proposed regulations are:

1. Set out the registration and licensing framework for drinking water suppliers.
2. Clearly defined health-related standards for the quality of drinking water.
3. General risk management obligations placed on drinking water suppliers that are based on public health risk analysis, due diligence, hazard management and auditing.
4. Transparency and public disclosure of water quality information.
5. Provide flexibility to ensure that the framework is not overly onerous for smaller drinking water suppliers.

The proposed changes to the regulatory framework will improve the safety of drinking water in WA but at the same time may result in an increase in compliance and administrative costs on the drinking water suppliers and the regulatory agencies. This discussion paper also details the key benefits and costs of the proposed changes and how it impacts the industry, businesses, community and enforcement agencies. DOH would like to seek feedback (in Section 10) on the potential impacts of the proposed changes.

### 9.1 Regulations and the registration and licensing of public health risk activities under the Public Health Act

The Public Health Act defines “public health risk” as “a risk of harm to public health”. Under section 304(3)(c) of the Public Health Act, regulations made under the Public Health Act can declare an activity to be a public health risk activity. Once declared a public health risk activity, the regulations may also declare the activity to be either registrable, licensable or both. A person, other than an exempt person, must not carry on a registrable / licensable activity unless the activity is registered / licensed by the “appropriate enforcement agency” prescribed in the regulations.

Part 8 of the Public Health Act sets out the requirements for registrable and licensable public health risk activities. Through the registration and licensing framework in the Public Health Act, the “appropriate enforcement agency” will be able to require the person/entity carrying out the public health risk activity to put in place the necessary management measures to mitigate the public health risks associated with the activity.

DOH proposes the following activities associated with the supply of drinking water be declared a public health risk activity and be managed under the Public Health Act’s registration/licensing framework:

1. The supply of drinking water to another person by means of reticulated conduits to any premises that is not under the management or control of the drinking water supplier.
2. The supply of drinking water to another person on a premises not connected to a drinking water supply of a licensed drinking water supplier.
3. The supply of water intended for human consumption to a drinking water supplier.

The differences in the above activities and the proposed regulatory requirements will be discussed in further detail in the following sections.

For the purpose of the proposed regulatory framework, a **drinking water supplier** “is any person supplying drinking water to another person”.

## 9.2 Licensable drinking water suppliers

DOH proposes that “the supply of drinking water to another person by means of reticulated conduits to any premises that is not under the management or control of the drinking water supplier” to be declared a public health risk activity that is licensable. Once declared a public health risk activity that is licensable in the proposed regulations, it will be an offence to carry on the licensable activity without an activity license issued under the Public Health Act. This is independent of whether a drinking water supplier is licensed or not under the *Water Services Act 2012*.

For the purpose of the proposed regulations, any persons carrying out this licensable public health risk activity is a **licensable drinking water supplier**.

To obtain the activity license, the licensable drinking water supplier will be required to apply to the “appropriate enforcement agency” for an activity license. As part of the application process, the licensable drinking water supplier will have to provide any documents and information that is reasonably required for a proper consideration of the application. As part of the assessment, the licensable drinking water supplier will need to provide information on how the requirements prescribed in the proposed regulations will be met. The proposed requirements that will be prescribed in the Regulations are detailed in Sections 9.5 to 9.11 of this discussion paper.

Transitional arrangements and assistance will be provided to drinking water suppliers to meet the requirements of the proposed regulations, particularly those who are currently not licenced under the *Water Services Act 2012*.

### Appropriate enforcement agency for the licensing of the licensable drinking water suppliers

For the purpose of licensing and the enforcement of the regulatory requirements of a licensable activity, the regulations will need to prescribe an “appropriate enforcement agency”. DOH proposes that the CHO be prescribed as the “appropriate enforcement agency” for the licensing of the licensable drinking water suppliers.

As the supply of drinking water by a person/entity may extend across different local government districts, the CHO will be the most “appropriate enforcement agency” for this purpose in order to avoid the duplication of the licensing process. Furthermore, the DOH currently has well established process and arrangements with licensed drinking water service providers which can be easily transitioned to the new regulatory framework.

### Exempt persons from the licensing requirements

Under Section 77 of the Public Health Act a person or a person within a class of persons, prescribed by the regulations, can be exempted from the requirement to be licensed when carrying out a licensable public health risk activity.

DOH proposes that the regulations give powers to the CHO to exempt any person or a person within a class of persons from having to hold an activity license when carrying out this licensable public health risk activity.

Prior to granting an exemption to a licensable drinking water supplier, due regard must be given to the following:

- The population served by the drinking water service.
- The potential impacts on the safety of the drinking water service.
- How the public health risks associated with the public health risk activity will be managed.

This will provide flexibility in the new regulatory framework to account for specific situations where the public health risk is not significant enough to impose the licensing requirements prescribed in the regulations.

#### Questions for consultation

6. Do you agree that the ***“supply of drinking water to another person by means of reticulated conduits to any premises that is not under the management or control of the drinking water supplier”*** is a public health risk activity? Why?
7. If yes, do you agree that any person/entity that carries on this public health risk activity must first be licensed to do so? Why?
8. Are there any examples of persons/entities that carry on this public health risk activity that can be exempted from the licensing requirement? If yes, please provide examples and say why.
9. Do you agree for the CHO to be prescribed as the “appropriate enforcement agency” for this licensable public health risk activity? Why?
10. Do you agree that the CHO should be given powers to exempt any person or a person within a class of persons that carries on this public health risk activity from the requirement to hold a license? Why?

### 9.3 Registrable drinking water suppliers

In areas that are not supplied by licensed drinking water suppliers, the premises will need to source an alternative drinking water supply. Typical alternatives that are used as a drinking water source in such instances include:

- Borewater;
- Rainwater collected off the roofs of buildings;
- Carted water.

When water is collected/abstracted and stored on the premises, the water source will need to undergo further treatment to treat it to drinking water quality standards. An adequately designed and well operated drinking water treatment system that accounts for the characteristics of the source water is required for the supply of safe drinking water.

DOH proposes that *“the supply of drinking water to another person at a premises not connected to a drinking water supply of a licensed drinking water supplier (under the Public Health Act)”* to be declared a public health risk activity that is registrable. Once declared a public health risk activity that is registrable in the proposed regulations, it will be an offence to carry on the registrable activity at any premises without being registered under the Public Health Act.

For the purpose of the proposed regulations, any persons carrying out this registrable public health risk activity is a ***registrable drinking water supplier***.

Examples of premises that may not be connected to a drinking water supply of a licensed drinking water supplier include:

- Caravan parks and camping grounds
- Lifestyle / retirement villages
- Local government facilities (such as town halls, community centres, airports)
- Prisons
- Remote minesite accommodation villages
- Roadhouses
- Schools
- Strata lots under the management of a body corporate

The registrable drinking water supplier will be required to apply to the “appropriate enforcement agency” to be registered. As part of the application process, the registrable drinking water supplier will have to provide any documents and information that is reasonably required for a proper consideration of the application. As part of the assessment, the registrable drinking water supplier will need to provide information on how the requirements prescribed in the proposed regulations will be met. The proposed requirements that will be prescribed in the Regulations are detailed in Sections 9.5 to 9.11 of this discussion paper.

### **Exempt persons from the registration requirements**

Although the supply of drinking water on a premises not connected to a drinking water supply of a licensed drinking water supplier is a public health risk, there are instances where the risk may not be significant enough to impose a registration requirement on the person supplying the drinking water.

Under Section 67 of the Public Health Act a person or a person within a class of persons can be exempted from the requirement to be registered when carrying out a public health risk activity. As such, DOH proposes the following classes of persons to be exempted from the need to be registered:

1. Owner or joint-owners of a private residential property.
2. Owner or joint-owners of holiday homes or short stay accommodations with an approved (by the local government) maximum occupancy of 12 persons<sup>7</sup>.
3. Any person or a person within a class of persons exempted by the CHO.

In the examples above, the supply of drinking water at those premises is restricted to the private residents of the premises that is not freely accessible to others. As such, the public health risks associated with the supply of drinking water at those premises is very low.

As a point of clarification, the proposed regulations do not cover any drinking water that is supplied as food product regulated by the *Food Act 2008*.

### **Appropriate enforcement agency for the registration of registrable drinking water suppliers.**

For the purpose of registration and the enforcement of the regulatory requirements of a registrable activity, the regulations will need to prescribe an “appropriate enforcement agency”. DOH proposes that the local government be prescribed as the “appropriate enforcement agency” for the registration of registrable drinking water suppliers.

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<sup>7</sup> Basing on Western Australian Planning Commission’s *Planning Bulletin 99 – Holiday Homes Guidelines*.

Local government currently collects monthly samples of the drinking water supply of public buildings that are not connected to a licensed drinking water service. When there were any non-compliance in the drinking water samples, the local government authorised officers have been providing advice to these drinking water suppliers to remediate their water treatment system and to ensure that the drinking water supplied to members of the public on the premises is safe. As such, local government will be in the best position to be the enforcement agency for registrable drinking water suppliers in their district.

#### Questions for consultation

11. Do you agree that “***the supply of drinking water to another person on a premises not connected to a drinking water supply of a licensed drinking water supplier***” is a public health risk activity? Why?
12. If yes, do you agree that any person/entity that carries on this public health risk activity must first be registered to do so? Why?
13. Do you agree with the proposed list of persons/entities that will be exempted from the registration requirement? Why? Are there any other persons/entities that should be exempted from the registration requirement? If yes, please provide examples and say why.
14. Do you agree for the local government to be prescribed as the “appropriate enforcement agency” for this registrable public health risk activity? Why?
15. Do you agree that the CHO should be given powers to exempt any person or a person within a class of persons that carries on this public health risk activity from the requirement to be registered? Why?

#### 9.4 Licensable source water supplier

The ADWG introduces a multiple barrier approach as a foundation for ensuring safe drinking water. As no single barrier is effective against all conceivable sources of contamination, the most effective barrier is the protection of source waters<sup>8</sup>. The ADWG dictates that “the prevention of contamination provides greater surety than removal of contaminants by treatment”.

The supply of water intended for human consumption to a drinking water supplier has been identified as a significant public health risk. When water is sourced externally for use as a drinking water supply, there is an interruption in the risk mitigation measures from catchment to tap.

Drinking water suppliers that source their water externally have no control over the management, monitoring or protection of the drinking water catchment where the water supplied to them comes from. The verification monitoring by the drinking water service supplier may fail to detect any new non-routinely tested contaminants that have been introduced via the catchment area. For this reason, drinking water source catchment protection plays an important role in the safety of a drinking water supply. By implementing effective risk mitigation measures to protect the drinking water source, a safe and reliable supply of source water can be provided to drinking water suppliers.

DOH proposes that “*the supply of water intended for human consumption to a drinking water supplier*” to be declared as a public health risk activity that is licensable in the new regulatory framework. For the purpose of the proposed regulations, any person carrying out this licensable public health risk activity is a ***licensable source water supplier***.

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<sup>8</sup> Source water is water in its natural state, before any treatment to make it suitable for drinking (ADWG 2016).

To obtain the activity license, the licensable source water supplier will be required to apply to the “appropriate enforcement agency” for an activity license. As part of the application process, the licensable drinking water supplier will have to provide any documents and information that is reasonably required for a proper consideration of the application. As part of the assessment, the licensable source water supplier will need to provide information on how the requirements prescribed in the proposed regulations will be met. The proposed requirements that will be prescribed in the Regulations are detailed in Sections 9.5 to 9.11 of this discussion paper.

### **Exempt persons from the licensing requirements**

There are some situations where the residual public health risk associated with the supply of water intended for human consumption to a drinking water supplier is low.

DOH proposes the following source water suppliers to be exempted from the licensing requirements:

1. Any water carter that sources its supply from a licensed drinking water supplier licensed under the Public Health Act.
2. Any person that formally declares the water supplied is non-drinking water and not to be used for human consumption.
3. Any person or a person within a class of persons exempted by the CHO.

### **Appropriate enforcement agency for the licensing of source water suppliers.**

DOH proposes to prescribe the CHO as the “appropriate enforcement agency” to license a person/entity that supplies water intended for human consumption to a drinking water supplier.

As a source water supplier can supply water across multiple local government districts, the regulatory and administrative burden on source water suppliers can be minimised by centralising the licensing the process.

#### **Questions for consultation**

16. Do you agree that ***“the supply of water intended for human consumption to a drinking water supplier”*** is a public health risk activity? Why?
17. If yes, do you agree that any person/entity that carries on this public health risk activity must first be licensed to do so? Why?
18. Do you agree with the proposed list of persons/entities that will be exempted from the licensing requirement? Why? Are there any other persons/entities that should be exempted from the licensing requirement? If yes, please provide examples and say why.
19. Do you agree for the CHO to be prescribed as the “appropriate enforcement agency” for this licensable public health risk activity? Why?
20. Do you agree that the CHO should be given powers to exempt any person or a person within a class of persons that carries on this public health risk activity from the requirement to hold a license? Why?

## 9.5 The new regulations to set out the standards for water quality

The ADWG (August 2018) has been endorsed by the WA Minister for Health and the Minister for Water and currently being used as the basis for setting policy on the quality and safety of drinking water supplied in WA.

The DOH proposes that the new regulations formalises the use of the ADWG as the guiding document and basis for setting policy and requirements on the quality and safety of drinking water supplied in WA. The regulations will set out the water quality standards requirements basing on the health-related guideline values in the ADWG, and will provide for an obligation that the drinking water supplied must be safe to drink.

### Questions for consultation

21. Do you agree for the ADWG to be used as the guiding document and basis for setting policy on the quality and safety of drinking water supplied in WA? Why?

## 9.6 The new regulations to set out the requirements for the management of risks associated with the supply of drinking water

The ADWG introduces a 12 element risk management framework for the management of drinking water quality. (Refer to Section 3.2 for further details)

### Licensable and registrable drinking water suppliers

The DOH proposes that all licensable and registrable drinking water suppliers are required to develop and implement a drinking water risk management plan (DWRMP) which specifies:

- Location, address and contact details of drinking water service supplier.
- Detailed description of the supply from source to final consumers that identifies the risks to the quality of the water and the risks that may be posed by the quality of the water and:
  - Assesses those risks
  - Sets out the steps to be taken to manage those risks (including the development and implementation of preventative strategies); and
  - Treatment barriers and the critical control points that will be in place.
  - Contains any other matters required by the regulations
- Who is responsible for managing hazards and risk to the quality of the water
- Details of the procedures for consultation with consumers in relation to matters relevant to the hazards and risks to the quality of the water supplied.
- Details of or reference to emergency management arrangement and procedures for dealing with an incident, event or emergency that may adversely affect the quality or safety of drinking water, or result in water being supplied that poses a risk to human health, including
  - The position of the responsible person
  - Methods for communicating or disseminating information to the public in relation to any such incident, event or emergency
- Details of a water sampling program that:
  - identifies the locations from which samples will be collected;
  - outlines how the locations for collection of samples have been selected;
  - specifies the frequency with which samples will be collected;
  - overall, provides assurance that the samples collected in accordance with the water sampling program are representative of the drinking water supplied in the relevant water sampling locality; and sufficiently validate risk management measures to ensure the quality of the supply.

***The detail required in the DWRMP will be tailored to the drinking water supplier's risk profile. DOH will make available guidelines to assist drinking water suppliers in the development of their DWRMP that is proportionate to the risk of their system.***

***In addition, DOH will also publish pre-prepared templates that can be utilised by smaller drinking water suppliers to reduce the administrative burden associated with the registration process.***

#### **Questions for consultation**

22. Do you agree that licensable drinking water suppliers should be required to establish and implement a Drinking Water Risk Management Plan? Why?
23. Do you agree that registrable drinking water suppliers should be required to establish and implement a Drinking Water Risk Management Plan? Why?

#### **Source water suppliers**

The DOH proposes that all source water suppliers are required to develop and implement a Drinking Water Source Protection Plan (DWSP) which specifies:

- Detailed description of the catchment area which typically includes: Physiography, climate, hydrogeology,
- Detailed land-use assessment that identifies the risks to the source water quality and the risks that may be posed.
  - Contains any other matters required by the regulations
- Catchment protection strategy that set out the steps to be taken to manage risks identified in the land-use assessment (including the development and implementation of preventative strategies)
- Who is responsible for managing hazards and risk to the quality of the water
- Details of the procedures for consultation with consumers in relation to matters relevant to the hazards and risks to the quality of the source water supplied
- Details of or reference to emergency management arrangement and procedures for dealing with an incident, event or emergency that may adversely affect the quality or safety of source water, or result in water being supplied that poses a risk to human health, including
  - The position of the responsible person
  - Methods for communicating or disseminating information to the public in relation to any such incident, event or emergency
- Details of a water sampling program that:
  - identifies the locations from which samples will be collected;
  - outlines how the locations for collection of samples have been selected;
  - specifies the frequency with which samples will be collected;
  - provides assurance that the samples collected in accordance with the water sampling program are representative of the drinking water supplied in the relevant water sampling locality; and sufficiently validate risk management measures to ensure the quality of the supply.

#### **Questions for consultation**

24. Do you agree that source water suppliers should be required to establish and implement a Drinking Water Source Protection Plan? Why?

## 9.7 Monitoring and testing

Drinking Water quality monitoring and testing provides an assessment of the overall performance of the system and the ultimate quality of drinking water being supplied to consumers<sup>9</sup>. A monitoring program serves the purpose of a “final check” to verify that the barriers and preventive measures implemented to protect public health associated with the supply of drinking water is working effectively.

A drinking water quality monitoring program must be established basing on the overall risk of the system which takes into consideration the risks from the source water through to the consumers which include: catchments, source waters, treatment systems, distribution systems and consumers. As part of the license/registration application, the “appropriate enforcement agency” will review the applicant’s proposed monitoring program to ensure it is established based on the overall risk of their system.

DOH proposes that compliance monitoring results are to be provided to both the CHO and the “appropriate enforcement agency” at the required timing and format set out in their licence / registration.

### Questions for consultation

25. Do you agree that the drinking water quality monitoring and testing program for licensable and registrable drinking water suppliers should be established based on the overall risk of their system? - Why?
26. Do you agree that licensable and registrable drinking water suppliers should provide their drinking water quality compliance monitoring results to the CHO at the required timing and format set out in their licence / registration? - Why?

## 9.8 The new regulations to set out reporting requirements

In addition to providing the CHO and the appropriate enforcement agencies with the compliance monitoring results, DOH proposes that drinking water suppliers / source water suppliers be required to report to the CHO AND the appropriate enforcement agencies in situations which are classified as ‘notifiable events’. Notifiable events would be when water quality results exceed the standards set out in the regulations or an incident that could significantly impact the quality of the water, or affect public health.

Failure to report a notifiable event without reasonable explanation would be classified as an offence.

Where a notifiable event occurs, the drinking water supplier / source water supplier will be required to rectify the situation or implement alternative water supply arrangements until a safe supply can be resumed.

The proposed notifiable events reporting requirement will ensure that corrective actions are implemented to contain any public health risk and to prevent waterborne disease outbreaks.

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<sup>9</sup> ADWG 2016, Section 3.5.

## Reporting to the public

DOH proposes that the regulations require licensed drinking water suppliers to publish annual drinking water quality information (for example, in the form of a report) summarising:

- Treatment system in place, including chemicals added to drinking water
- Treatment system performance summary
- Summary of microbiological testing undertaken and the results
- Summary of chemical testing undertaken and the results
- List of incidents and actions undertaken when exceedances occurred
- Description of the supply system, including the risk management processes in place
- Water quality customer complaint summary
- Contact details for more information

This is a key aspect of public transparency and meets obligations expected of the licensed drinking water supplier to ensure that consumers are able to obtain detailed information about the quality of drinking water supplied.

### Questions for consultation

27. Do you agree that licensed drinking water suppliers should be required to publish their annual drinking water quality information? Why?

## 9.9 The new regulations to set out the requirements for the auditing of licensable and registrable drinking water suppliers

DOH proposes to require licensed and registered drinking water suppliers and licensed source water suppliers to be audited. The audit scope and frequency would be set in consultation with the drinking water supplier or source water supplier and will be based on their risk profile. This means that a supplier with a lower risk profile will expect to have audits with a narrower scope at a lesser frequency.

The proposed regulation will set out the audit scope which would involve auditing of DWRMP / DWSPP, systems and records to determine whether these plans and systems have been implemented. Costs of the audit must be covered by the drinking water supplier.

Following an audit, any matters that require attention will be identified. The “appropriate enforcement agency” will negotiate with the drinking water supplier or source water supplier on the schedule to remedy the identified deficiencies. The schedule and remediation priorities will be based on the public health risk caused by the deficiency. Failing to meet the agreed schedule and remediation priorities will constitute a breach in the conditions of their registration / license and further actions will be taken in accordance with the provisions of the Public Health Act.

As there will be a transition period required for the implementation of the proposed regulatory framework, the audit schedule will be negotiated at the registration and licensing application stage. The “appropriate enforcement agency” should give regard to time required for the proposed regulatory framework (in particular the requirement to develop and implement DWRMP / DWSPP) to mature to the extent required for the audit function to be effectively carried out, and for the audit framework to be established.

In the implementation of the proposed audit framework, the DOH will liaise with other regulatory agencies that are already auditing drinking water suppliers (such as the ERA) to ensure that there will be no overlap of scope or clashes in audit schedules.

### Questions for consultation

28. Do you agree that licensed drinking water suppliers should be audited? - Why?
29. Do you agree that registered drinking water suppliers should be audited? - Why?
30. Do you agree that licensed source water suppliers should be audited? - Why?
31. Do you agree that the auditing schedule and scope should be based on risk profile of the drinking water supplier / source water supplier? - Why?

### Independent auditors

The DOH proposes that auditing can be done by independent auditors (i.e. auditors that are not authorised officers under the Public Health Act or the drinking water supplier or persons associated with preparing or implementing that drinking water supplier's risk management plan). The purpose to allow for independent auditors is to avoid a conflict of interest in an audit. Independent auditors will need to be approved by the "appropriate enforcement agency" prior to being able to undertake audits.

It is proposed that any person undertaking an audit cannot:

- Have prepared the risk management plan or any other relevant documentation for the drinking water supplier / source water supplier they are auditing.
- Have any other form of conflict of interest (ownership/personal connections etc) with the drinking water supplier / source water supplier that they are auditing.

As an example, [Exemplar Global](#) has developed an auditor certification scheme for drinking water quality management systems. The scheme provides international recognition for auditors of these systems to ensure that drinking water suppliers can demonstrate that they are managing risk in accordance with the risk management framework as set out in the ADWG. The scheme establishes an Australia-wide certification for auditors with competence in the area of drinking water risk management systems.

### Questions for consultation

32. Do you agree that the new regulatory framework should allow independent auditors to conduct the proposed regulatory audits? - Why?  
If yes, how should the appropriate enforcement agencies manage the approval of the independent auditor?  
What qualifications / certification should the independent auditors have?  
When independent auditors are engaged to conduct audits, are there any additional checks and controls that should be in place to ensure auditor independence?

## 9.10 Supply of unsafe drinking water to be a serious or material public health risk

Part 4 of the Public Health Act defines what constitutes as offences relating to serious and material public health risks and sets out the penalties for the offences.

DOH proposes that the new regulatory framework declares the supply of unsafe drinking water by a licensed drinking water supplier to be a serious public health risk. The Public Health Act defines a serious public health risk as "a public health risk involving potential harm to public health that is irreversible, of a high impact or on a wide scale". The supply of drinking water by a licensed drinking water supplier involves the reticulation of the drinking water supply to a large population. The supply of unsafe drinking water in these instances can potentially cause a large population to be harmed.

DOH also proposes to declare the supply of unsafe drinking water by a registered drinking water supplier to be material public health risk. Material public health risk is defined under the Public Health Act as “public health risk involving potential harm to public health that is neither trivial nor negligible.” As the supply of drinking water by a registrable water supplier is confined to a specific premises, the impact and population that can potentially be affected is significantly less than a supply by a licensed water supplier. Nonetheless, the supply of unsafe drinking water in such instances can potentially cause harm to public health that is neither trivial nor negligible.

If an offence under Part 4 has been committed, the Public Health Act requires the licensed/registered drinking water supplier to prove that they:

- took reasonable steps to prevent or avoid the circumstances that gave rise to the public health risk, including by putting in place any systems or safeguards that might reasonably be expected to be provided; and
- complied with the requirements of any notice or order under this Act that related to the public health risk; and
- as soon as becoming aware of the circumstances that gave rise to the public health risk reported those circumstances to an “appropriate enforcement agency”; and took all reasonable steps necessary to prevent or reduce the public health risk.

The penalties associated with offences relating to serious and material public health risks are set out in Part 4 of Public Health Act.

#### **Questions for consultation**

33. Do you agree that the supply of unsafe drinking water by a licensed drinking water supplier to be a serious public health risk? - Why?
34. Do you agree that the supply of unsafe drinking water by a registered drinking water supplier to be a material public health risk? - Why?
35. Are there any other public health risk activities or activities associated with the supply of drinking water that should be declared either a serious or material public health risk?

### **9.11 General public health duty provisions**

Part 3 of the *Public Health Act 2016* sets out the general public health duty. It stipulates that “a person must take all reasonable and practicable steps to prevent or minimise any harm to public health that might foreseeably result from anything done or omitted to be done by the person” (s34(1)).

Although, Section 35 of the *Public Health Act 2016* stipulates that a failure to comply with the general public health duty does not of itself give rise to any right or remedy or constitute an offence, a breach in the general public health duty may constitute grounds for action to be taken under the Act, including the issue of an improvement notice and/or enforcement order.

The DOH proposes that the regulatory framework declare that:

- anyone who supplies drinking water to another person has a general public health duty to ensure the drinking water is safe to drink; and
- anyone who supplies non-drinking water to another person has a general public health duty to ensure the non-drinking water cannot be reasonably mistaken as being drinking water by the recipient.

The general public health duty in relation to supplying drinking water is by definition general in nature, and universal, but is not intended to contradict any specific requirement under any other regulatory framework. It does not compel the supply of drinking water in any specific circumstance, but requires that, if drinking water (or non-drinking water) is supplied, then the

water supplier has the duty to ensure all reasonable and practicable steps to prevent or minimise harm to public health has been taken.

There are instances where the supply of drinking water is neither practicable nor achievable. An example is in isolated remote locations where no reliable systems can be operated to guarantee the quality of water. In such instances, management measures have to be in place to ensure the water supply cannot be confused for drinking water.

#### **Questions for consultation**

36. In your opinion, what are some examples of situations where the supply of drinking water is neither practicable nor achievable?

#### **Risks associated with the use of intermediary tanks to store or contain a drinking water supply.**

Intermediary tanks may be used to buffer the flow of drinking water supplied to a large reticulation network contained within a lot. This will enable fixtures connected to the reticulation network to be pressurised sufficiently to meet the water flow demands for the entire lot.

Although the drinking water is supplied by a licensed drinking water supplier, contamination can be reintroduced back into the drinking water supply when there is an air break in the plumbing system. The decrease in disinfection residuals in a tank can increase the likelihood of recontamination and microbial regrowth.

Where drinking water is stored for extended periods of time in tanks, it will also be necessary to install water treatment systems to maintain the minimum disinfection residuals in a drinking water supply.

Premises that may require the use of intermediary tanks includes, but not limited to the following:

- Large public buildings such as function venues, schools, hospitals, shopping centres, large office blocks.
- High density grouped dwellings contained within a lot such as apartment blocks, large strata lots, caravan parks.

There are a two main options to manage this public health risk:

- CHO to publish guidelines on how the drinking water quality can be maintained and managed at premises that uses intermediary tanks that is connected to a drinking water supply of a licensed drinking water supplier. The guidelines may be specified in the proposed regulations and enforced through the general public health duty provisions in the Public Health Act. Refer to section 9.10 for further information on how the general public health duty is enforced under the Public Health Act.
- Declare "*the use of intermediary tanks at premises connected to a drinking water supply of a licensed drinking water supplier*" as a public health risk activity that requires to be registered with the appropriate enforcement agency. The regulations will set out the requirements for this registrable public health risk activity.

#### **Question for consultation:**

37. In your opinion, what is the most appropriate option to manage the public health risks associated with the use of intermediary tanks at premises connected to a drinking water supply of a licensed drinking water supplier?

## 9.12 Offences and penalties

The *Public Health Act 2016* is a prescribed Act under the *Criminal Procedure Regulations 2005*. This allows the infringement notice framework set out in the *Criminal Procedure Act 2004* to apply to the *Public Health Act 2016*.

### Improvement notices

The main mechanism under the Public Health Act that will be used to address non-compliances is set out in *Part 14 – Improvement notices and enforcement orders*. Under this part, an authorised officer may give an improvement notice to a person who:

- is carrying on a public health risk activity that contravenes, or likely to contravene any provision of this Act (and its regulations); or
- is carrying on a public health risk activity in a manner that contravenes, or likely to contravene any provision of this Act (and its regulations); or
- has carried on a public health risk activity that contravened, or in a manner that contravened, any provision of this Act in circumstances that make it likely that the contravention will continue or be repeated; or
- is failing, or has failed, to comply with the general public health duty.

The Public Health Act empowers the enforcement agency to require the preparation and implementation of a risk management plan that identifies the public health risk associated with the activity and sets out the steps to be taken to manage those risks and to ensure compliance with any requirements of the Public Health Act that relate to the activity. The improvement notice will also specify the period within which the person must take action.

### Enforcement orders

When a person has not complied with an improvement notice within the period specified in the notice, an enforcement agency may give an enforcement order to a person. An enforcement order can also be issued if it is necessary to prevent or mitigate a serious public health risk.

The Public Health Act also enables the Chief Health Officer or a local government to give an enforcement order to a person who has not complied with an improvement notice regardless whether the authorised officer who gave the improvement notice to the person was designated as an authorised officer by that or another enforcement agency.

Under the provisions of the Public Health Act, the enforcement order will be in a form of an order that the person given the order:

- required to take specified action; or
- prohibited from carrying on a specified activity; or
- prohibited from causing or permitting a specified activity to be carried on at specified premises; or
- prohibited from using any specified machinery, equipment or other thing; or
- prohibited from entering specified premises.

The enforcement order will also state the period within which the person is required to comply with the order. A person must not, without reasonable excuse, contravene or fail to comply with an enforcement order given to the person. A contravention of an enforcement order prescribed under the Public Health Act can result in a penalty of a \$50 000 fine and/or a daily penalty of a \$10 000 fine.

## 10 Proposal Implications

In this section, the key benefits and potential costs associated with the proposed changes in regulatory framework will be discussed. Feedback and opinion from the community, industry and enforcement agencies will provide a more holistic view on the practicalities, relevance and impact of the proposed changes. This is to ensure that the benefits brought about by the proposed changes are outweighed by the costs. The feedback received will also provide the DOH with valuable information on what resources, tools and support that needs to be developed and provided to implement the regulatory framework effectively.

### 10.1 Impact on the community

The proposed regulatory framework will benefit the community in the following areas:

- A safer drinking water supply as the result of better management of risks associated with the supply of drinking water and the application of the 12 element framework of the ADWG in line with how drinking water supply is regulated in other Australian Jurisdictions.
- Confidence in the quality of drinking water supplied in WA as a result of better oversight from enforcement agencies and public disclosure of water quality information.
- Prevention of illnesses by ensuring water that is not suitable for human consumption is not supplied for use as drinking water.

The proposed regulatory framework might have undesirable consequences (costs) to the community in the following areas:

- In the context of reticulated drinking water supplies, it is a possibility that the additional cost incurred with the increase in operation and administration cost be transferred to the consumers. This is more relevant to smaller licensable reticulated drinking water supplies that do not have established risk management systems. Refer to Section 10.2 for further discussion on the increase of cost to industry and businesses.

#### Questions for consultation

38. Do you agree with the listed benefits of the proposed regulatory framework to the community? Please provide any further comments that you have, including any other benefits that were not listed.
39. Do you agree with the listed costs of the proposed regulatory framework to the community? Please provide any further comments that you have, including any other costs that were not listed.

## 10.2 Industry and businesses

The proposed regulatory framework will benefit the industry and businesses in the following areas:

- Replacement of the informal arrangements DOH has with drinking water suppliers with a single, statewide regulation.
- Risk-based regulations that are flexibility to allow for specific circumstances and proportionate to the risk of the drinking water supply.
- Clear and well-defined requirements from the enforcement agencies.
- Consumer confidence in the drinking water supply.
- Clearly defined roles and responsibilities for both the drinking water suppliers and enforcement agencies.

The costs of the proposed regulatory framework on industry and businesses are as follow:

- DOH does not intend to prescribe a fee for the proposed registration or licensing framework. However, where the “appropriate enforcement agency” is a local government, the local government may, in accordance with Section 294 of the Public Health Act, impose an annual or other fee in relation to the registration of a registrable activity.
- Although most drinking water suppliers that are currently licensed under the Water Services Act have well established risk management plans and have arrangements with DOH, there are some which are not. The proposed regulatory framework will require drinking water suppliers without a risk management plan to develop and implement a DWRMP. The cost of which will be proportional to the complexity their system and scale of their supply.
- Smaller privately operated registrable drinking water supplies that are registrable will also be required to develop and implement DWRMPs. In general, the drinking water systems for these suppliers are less complex and significantly lower in risks. DOH will be able to publish a series of guidance notes to provide guidance to drinking water suppliers in the development and implementation of their DWRMP.
- There will be additional compliance and auditing costs for licensable drinking water suppliers, particularly those that are not licensed or are currently exempt under the *Water Services Act 2012*. However, most licensable drinking water suppliers are already undertaking some form of risk management planning and have incident management plans, emergency response capabilities and water quality monitoring schedules in place. The formalisation of these requirements is not expected to significantly increase the burden on the licensable drinking water supplier’s resources allocated for regulatory compliance.
- Smaller privately operated registrable drinking water supplies will not require audits as extensive as licensable drinking water suppliers as their system is less complex and have fewer critical risk management measures.

### Questions for consultation

40. Do you agree with the mentioned benefits of the proposed regulatory framework to industry and businesses? Please provide any further comments that you have, including any other benefits that were not listed.
41. Do you agree with the listed costs of the proposed regulatory framework to industry and businesses? Please provide any further comments that you have, including any other costs that were not listed.

### 10.3 Enforcement agencies

The proposed regulatory framework will benefit the enforcement agencies in the following areas:

- A better management and surveillance system for the public health risks associated with the supply of drinking water in WA.
- Clearly defined roles and responsibilities for both the drinking water suppliers and enforcement agencies.
- Replacement of the informal arrangements DOH and Local Government has with drinking water suppliers with a single statewide regulation.
- No longer reliant on Water Services Act to require a public health risk management system for drinking water supply.

The costs of the proposed regulatory framework on enforcement agencies are as follow:

- As the proposed regulatory framework will introduce additional regulatory functions of the local government, the local government will need to allocate resources into the administration of the additional regulatory functions. However, the Public Health Act allows local government to recover any cost associated with the performance of a function as an enforcement agency under the Public Health Act.

#### Questions for consultation

42. Do you agree with the mentioned benefits of the proposed regulatory framework to enforcement agencies? Please provide any further comments that you have, including any other benefits that were not listed.
43. Do you agree with the listed costs of the proposed regulatory framework to enforcement agencies? Please provide any further comments that you have, including any other costs that were not listed.

General question for inclusion in survey:

#### Questions for consultation

44. Please provide any further comments you have on the regulation of drinking water in WA that have not been specifically addressed in this discussion paper?

## 11 Next Steps

The information gathered from this consultation will be used in the development of the new regulatory framework. Your input is crucial as it will assist in identifying the areas of the proposed regulatory framework that needs further consideration.

After analysis of all submissions, a determination of which option to adopt, will be made. The results and findings of the consultation will be presented in a consultation summary report and submitted to the WA Better Regulation Unit, to support the preferred option.

The consultation summary report will be made available on the Department of Health website. Please note, that your feedback forms part of a public consultation process and the Government may quote from your comments in future publications. If you prefer your name and organisation to remain confidential, please indicate that in your submission. As submissions made in response to this paper will be subject to Freedom of Information requests, please do not include any personal or confidential information that you do not wish to become available to the public.

The consultation and feedback process will be open until 30 August 2019.

Please direct any feedback to [publichealthact@health.wa.gov.au](mailto:publichealthact@health.wa.gov.au).

**This document can be made available in alternative formats on request for a person with disability.**

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