

Public Health and Wellbeing Regulations Sunset Review regulatory impact statement

Chapter 1: Vector-borne infectious disease control

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The following chapter is an extract of the regulatory impact statement for the proposed Public Health and Wellbeing Regulations (2019).

Information on infringements, consultation, implementation, evaluation and the exposure draft regulations are contained in the full regulatory impact statement available on the [Engage Victoria website](https://engage.vic.gov.au) <<https://engage.vic.gov.au>>.

This extract was prepared to assist stakeholders who access the report by accessing a specific category on the Engage website.

Introduction (and invitation to comment)

Overview

The Public Health and Wellbeing Regulations 2009 (the current regulations) were made under the *Public Health and Wellbeing Act 2008* (the Act) and are due to sunset on 15 December 2019. New regulations are needed to replace them.

The remaking process provides an opportunity to revisit whether regulations are still needed and, if so, whether there are ways to improve them.

Public health regulations provide a framework for businesses, councils and individuals to protect the health and wellbeing of Victorians. Understanding how these regulations, and any proposed changes, will impact on Victorian business and the Victorian community is critical to the effective operation of the regulatory framework.

The current regulations include several regulatory areas, and the subject matter varies widely. In some ways these regulatory areas are distinct in their nature; however, their overall objective gives effect to the Public Health and Wellbeing Act.

To the extent that the regulatory areas are different, the department consulted key stakeholders to ensure any issues were understood and the impact of proposed solutions would be acceptable. This preliminary consultation has informed the proposed regulations and a summary is provided in the 'Consultation' chapter.

Purpose and objective

Victorians enjoy one of the highest standards of health and wellbeing in the developed world. This could not be achieved without laws and regulations that protect and promote public health and wellbeing.

The Act

The current regulations were made under the Public Health and Wellbeing Act. The purpose of the Act is to provide a legislative framework that promotes and protects public health and wellbeing in Victoria.

The state has a significant role in promoting and protecting the public health and wellbeing of Victorians.

Public health and wellbeing includes the absence of disease, illness, injury, disability or premature death and the collective state of public health and wellbeing. Public health interventions are one of the ways in which the public health and wellbeing can be improved and inequalities reduced.

The regulations

As set out in the Public Health and Wellbeing Act, the aim of the regulations is to achieve the highest attainable standard of public health and to prevent disease and illness while minimising costs for regulated industries.

Public health regulations provide a framework for businesses, councils and individuals in the practical application of the Act.

The regulatory impact statement

The purpose of this regulatory impact statement is to provide information and analysis to review how these regulations, and any proposed changes, will affect Victorian business and the Victorian community and contribute to the effective operation of the regulatory framework for public health.

The current regulations are due to expire on 15 December 2019. New regulations are needed to replace them.

Preparation of the new regulations

Before new regulations are made, the *Subordinate Legislation Act 1994* requires completion of the following four steps shown in Figure 1.

Figure 1: The four steps of making new regulations



Preliminary consultation

The department undertook preliminary consultation with key stakeholders to inform development of the proposed regulations. The proposed regulations address a range of matters for giving effect to the Act and therefore different stakeholders were engaged on different matters.

A summary of the preliminary consultation that has occurred is provided in the ‘Consultation’ chapter of this regulatory impact statement.

Public consultation: regulatory impact statement, evaluation and implementation

This regulatory impact statement has been prepared to meet the requirements of the Subordinate Legislation Act, enabling public consultation on the proposed regulations. The regulatory impact statement presents the range of matters addressed in the proposed regulations in separate chapters. Each chapter includes the regulatory objective for the matters addressed in the chapter, an assessment of the costs and benefits of the proposed regulations and possible alternatives.

In most cases the regulatory impact statement considered and analysed three regulatory options: to remove all regulation, to remake the current regulations without change, or to strengthen the requirements set out in the current regulations. The extent of the analysis of the regulatory options varies but is consistent with the need for regulatory change. In most cases the recommended option for each regulatory area is to strengthen the current regulations.

Each of the regulatory areas included within the regulatory impact statement has a specific implementation plan that will support awareness and understanding of any changes, preparedness and compliance. Information about implementing the proposed regulations can be found in the ‘Implementation’ chapter.

The proposed regulations will operate for up to 10 years. Evaluation has a key role in ensuring the intended improvements of the proposed regulations (appropriately effective and proportionate) are borne out and align with government objectives on an ongoing basis. Each of the regulatory areas included within the regulatory impact statement has a specific evaluation plan. Information about the evaluation, including public consultation, can be found at the end of the regulatory impact statement.

The proposed regulations are included as an attachment to this document.

Consideration of submissions

Public comments and submissions will be considered before the new regulations are made.

Final decision

The decision to make or not to make the proposed regulations will be informed by the public comments and submissions received. Notice of the decision will be published as soon as practicable after the decision has been made.

Small business impact and competition assessment

Small businesses may disproportionately experience the impacts from regulatory requirements for a range of reasons, including relatively limited resources to interpret compliance requirements or to keep pace with regulatory changes, and the cumulative effect of different requirements.

Most of the proposed regulations propose simplified and streamlined regulatory definitions and requirements compared with the current regulations, particularly where stakeholder feedback has raised issues about ambiguity of the intention of regulations. Any regulatory proposal needs to be scrutinised carefully to assess whether it is having an adverse impact on the ability of firms or individuals to enter and participate in the market. In line with the *Victorian guide to regulation*, new legislation (both primary and subordinate) needs to demonstrate that it will not restrict competition, unless benefits of the restriction outweigh the costs and the objectives of the legislation can only be achieved by restricting competition.

In instances where restrictions on competition have been identified, the benefits of the restriction outweigh the costs and the objectives of the legislation can only be achieved by restricting competition. For example, the registration of a premises by local government for the purposes of infection control standards creates an additional cost for starting a health and beauty service business. However, this cost is offset by the reduced risk of disease in the community and the reduced risk of an infectious disease outbreak.

Structure of the regulatory impact statement and the proposed regulations

This regulatory impact statement and the proposed regulations have grouped the regulations according to either how the regulations are administered or the regulation's purpose in the Act. These are broadly grouped into:

- regulations administered by councils
- regulations administered by the department
- regulations related to managing and controlling infectious diseases, micro-organisms and medical conditions
- other regulations.

Regulations administered by councils

- Vector-borne infectious disease control
- Registered premises – infection control
- Aquatic facilities

Regulations administered by the Secretary to the Department of Health and Human Services

- Cooling tower systems
- Legionella risks in certain premises (water delivery systems)
- Pest control

Management and control of infectious diseases, micro-organisms and medical conditions

- Notifications of infectious diseases, micro-organisms and medical conditions
- Closed court orders for prescribed diseases
- Immunisation and exclusions – schools and childcare
- Escort agencies providing information to sex workers and clients

Other regulatory provisions

- Prescribed senior officers (Chief Health Officer delegations)
- Tissue donations
- Consultative councils.

What isn't included in this regulatory impact statement

The Public Health and Wellbeing Act

The Public Health and Wellbeing Act is the legislation under which these regulations are made. The matters that can be set out in the regulations are confined to what is required under the Act. The requirements under the Act are not the subject of this review, only the details set out in the regulations. During the process of the review and consultation it is likely that potential improvements to the Act may be identified, but that is not the focus of this regulatory impact statement.

Public Health and Wellbeing Regulations relating to prescribed accommodation

Regulations relating to prescribed accommodation will not be considered within this regulatory impact statement (rr. 13 to 27). Separate new regulations relating to prescribed accommodation will be made in 2020. In the interim, the operation of the prescribed accommodation regulations will be extended in their current form for 12 months to allow further time for review and consultation.

The extension of the prescribed accommodation regulations provides an opportunity to separate regulations relating to prescribed accommodation from the other regulations made under the *Public Health and Wellbeing Act 2008*. It is intended that the extended prescribed accommodation provisions will be contained in the renamed 'Public Health and Wellbeing (Prescribed Accommodation) Regulations 2009' and will operate separately from the proposed Public Health and Wellbeing Regulations 2019.

Public Health and Wellbeing Regulations relating to HIV testing

The Public Health and Wellbeing Act prescribes special requirements for HIV testing and these requirements are included in the 2009 regulations. The need to review and modernise these requirements is an issue that a range of sector stakeholders have been raising for some years. Overwhelmingly, the sector has supported a repeal of relevant sections of the Act relating to pre and post HIV testing. The Victorian Parliament recently passed the Public Health and Wellbeing Bill 2019 to repeal the HIV testing specific provisions (ss. 131 and 132) on the basis that they stigmatise people with HIV and are outdated. As a result, the prescribed regulations will not need to be made.

Invitation to comment

In accordance with the *Victorian guide to regulation*, the Victorian Government seeks to ensure that proposed regulations are well-targeted, effective and appropriate, and impose the lowest possible burden on Victorian businesses and the community.

The regulatory impact statement process involves assessing regulatory proposals and allows members of the community to comment on proposed regulations before they are finalised. Such public input provides valuable information and perspectives and improves the overall quality of regulations.

The Public Health and Wellbeing Regulations 2019 (the proposed regulations) will replace the Public Health and Wellbeing Regulations 2009 (the current regulations). A copy of the proposed regulations is published with this regulatory impact statement.

Public comment is invited on the regulatory impact statement and the proposed regulations.

The consultation period is 60 days. Please note that all comments and submissions received will be treated as public documents.

Submission deadline

Comments and submissions should be received by the Department of Health and Human Services no later than 5.00 pm, Monday 30 September 2019.

How to make a submission

Preferred method

The [Engage Victoria website](https://engage.vic.gov.au) <https://engage.vic.gov.au> is the preferred method for receiving submissions. The website includes specific questions for each regulatory area and allows for additional feedback to be provided.

Email

If you are unable to use the preferred method above, submissions can be received by [emailing the department](mailto:phwa.enquiries@dhhs.vic.gov.au) <phwa.enquiries@dhhs.vic.gov.au>.

Post

If you are unable to use the preferred method above, submissions can be received by post marked 'Submission to the Review of the Public Health and Wellbeing Regulations 2009' and addressed to:

Chief Health Officer
Regulation, Health Protection & Emergency Management
Department of Health and Human Services
GPO Box 4057
Melbourne VIC 3001

Where can I obtain copies of this regulatory impact statement and the proposed regulations?

Copies of this regulatory impact statement and the proposed regulations can be obtained from the [Engage Victoria website](https://engage.vic.gov.au) <https://engage.vic.gov.au>.

How can I be updated on the progress of the review?

The [Engage Victoria website](https://engage.vic.gov.au) <<https://engage.vic.gov.au>> enables you to register to receive updates on the progress of the review of the current regulations.

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This extract was prepared to assist stakeholders who access the report by accessing a specific category on the Engage website. This is not intended to limit the scope of submissions; the department welcomes submissions from all interested parties.

Chapter 1: Vector-borne infectious disease control

Problem analysis

Victoria regulates the control of mosquitoes and other disease vectors to prevent disease transmission to humans. Climate change, urban development and increased global travel are influencing the spread and distribution of disease-causing pathogens and disease vectors.

Pathogens and disease vectors

In Victoria the most common pathogens passed from mosquitoes to humans are viruses such as Ross River virus (RRV), Barmah Forest virus (BFV). The potentially fatal Murray Valley encephalitis virus and West Nile strain Kunjin virus are very rare, but there have been locally-acquired cases reported in the past. Mosquitoes have also been suggested to be one of the possible vectors for Buruli ulcer, caused by the bacterium *Mycobacterium ulcerans*, which is a disease of increasing concern in Victoria .

While mosquitoes are responsible for most vector-borne disease burden in Victoria (also known as arbovirus when related only to transmission by mosquitoes), other organisms may also serve as vectors (for example, flies, rodents or ticks).

Regulations established in 2009 are limited in their scope to the management of breeding mosquitoes capable of transmitting arboviruses. They do not address the broader risk of other pathogens such as bacteria and parasites, adult mosquitoes or other vectors such as rodents and birds and parasites such as ticks.

Spread and distribution risks

Victoria's public health risk posed by vector-borne pathogens is changing. Factors such as climate change, urban development and increased domestic and international travel are influencing the proliferation, spread and geographic distribution of disease-causing pathogens and disease vectors.

With a change in climate, the conditions for the establishment of exotic species of mosquitoes could become more favourable, enabling local transmission of exotic viruses such as dengue, yellow fever, chikungunya and Zika.

Transmission of arboviruses involves a complex ecology between human and animal hosts, vectors and environmental conditions. The department conducts arbovirus surveillance across Victoria using a One Health approach, which recognises the interconnectedness of human health with that of animal health and the environment. RRV is the most commonly reported arbovirus among humans in Australia, averaging 204 cases per year in Victoria. Both RRV and BFV are characterised by joint inflammation and pain, fatigue, muscle aches and rash. Symptoms can last for up to six months. Cases occur particularly around inland waterways and coastal regions. Epidemics occur from time to time and are related to environmental conditions that encourage mosquito breeding such as heavy rainfall, floods, high tides, and temperature. The overuse of water, particularly in rural areas also contributes to mosquito breeding.

Vector control and enforcement

Adult mosquitoes and mosquito breeding grounds require effective control to break the cycle of potential or actual transmission of mosquito-borne disease. Control of mosquitoes can include eliminating

mosquito breeding grounds, eradicating adult mosquitoes and abating conditions conducive to mosquito breeding. Control programs currently exist within municipalities across the state and are funded by the department. These activities look to reduce the burden of disease in these areas, reduce the impact and nuisance aspect of mosquitoes, and additionally provide an early warning system of disease that may become established within human population groups.

The current regulations are limited to preventing mosquito breeding. They neither address other mosquito control practices such as eradicating adult mosquitoes across their full life cycle, or other pests and vectors.

The regulations made under s. 235(a) of the *Public Health and Wellbeing Act 2008* (regulation-making power of nuisance) are limited in scope to the prevention of mosquito breeding. This hinders the enforcement powers of authorised officers in addressing potential or actual public health risks posed by broader vector issues. It is proposed that broader Regulations are added to address control methods, a wider scope (across all potential vectors), and emerging infectious diseases risk.

An example of this vector control and enforcement issue is the experience of local government areas (LGAs) during the 2016–17 RRV outbreak in Victoria where they had no ability to direct or enforce landowners or other government departments to implement control measures against adult mosquitoes when they posed a risk to local communities.

The outbreak period resulted in a 10-fold increase in expected cases of RRV and BFV for this period, with a total of 1,974 human cases of diseases notified to the department. This is likely an underestimate of the actual number of cases occurring in the community at the time, as not all infections are symptomatic, or debilitating, so people do not seek care and are not tested for their infection.

Mosquito breeding and possible mosquito-borne disease is variable and may be contingent on environmental conditions such as heavy rainfall. Typically, mosquito breeding season occurs between November and April each year and is more prevalent after heavy rainfall where water can pool causing mosquito breeding conditions. For example, in 2018 and 2019 to date, there have been minimal notifications of RRV; however, there were 224 notifications of RRV in 2017.

Integrated mosquito management consists of four major principles: Adult mosquito and larval surveillance, source reduction, larval control and adult mosquito control. Both regulatory and non-regulatory measures are used in integrated mosquito management.

Non-regulatory measures to control mosquito breeding – Victorian Arbovirus Disease Control Program

As part of the current approach to control mosquito breeding, the department's Victorian Arbovirus Disease Control Program funds 11 rural and regional councils around \$160,000 per year in total, to undertake mosquito surveillance and control measures during mosquito breeding season (typically during the warmer months). The majority of the funded councils are located along the Murray River and coastal regions. Under the program, councils may undertake more rigorous control measures in public areas after heavy rainfall or if there are reports of mosquito-borne disease.

Mosquitoes trapped as part of this surveillance program are submitted to the AgriBio laboratory at the Department of Jobs, Precincts and Regions for mosquito counting and viral testing. The data is reported to the department for monitoring and analysis. Through a Memorandum of Understanding, the department funds the Department of Jobs, Precincts and Regions around \$445,225 per year to provide these scientific support services, which includes testing of sentinel chickens as an early warning system for human diseases.

These non-regulatory measures supplement the response-based provisions of the regulations.

Hazard

Disease vectors contribute to transmitting infectious disease to humans. The most common vector-borne disease in Victoria is RRV, which is caused by an alphavirus spread by mosquitoes. Other mosquito-borne diseases endemic to Victoria include BFV and Murray Valley encephalitis.

While mosquitoes represent the greatest risk of vector-borne diseases in Victoria, other insects, animals, including birds and rodents serve as vectors of disease. In specific circumstances, control measures, such as removing mosquito breeding grounds, or the removal of rodents may be required to reduce a risk to public health from a disease vector. The current regulations limit the potential to control the hazard and do not address alternative control practices such as adult mosquito spraying or residual insecticide application.

Exposure

As result of favourable environmental conditions, such as a period of heavy rainfall and warm weather, mosquitoes have the potential to become abundant in the environment. There are more than 275 identified mosquito species across Australia, many of which have the potential to carry disease-causing pathogens. All Victorians are at risk of exposure to these diseases as result of unmitigated breeding grounds and the inability to control adult mosquito populations.

There is a constant threat of exotic mosquitoes entering and becoming established in Victoria. Airport incursions occur regularly, introduced through mosquitoes travelling on ships and aircraft at ports of entry to Victoria. These mosquitoes represent a risk to the community of diseases such as dengue (already established in northern Australia), chikungunya, Zika and malaria. In these instances, the department collaborates with Commonwealth agencies to mitigate and control the risk. While these incursions occur regularly, as a result of the control measures implemented, there have no documented instances of transmission of these diseases in Victoria.

Climate change and changing environmental conditions may also contribute to shifts in disease distribution due to changed breeding grounds, changed host populations and, consequently, human exposure. This is most likely to occur in diseases and mosquito species which are endemic to northern Australia migrating south as the climate becomes increasingly warm.

Vulnerability

Seasonal influences on mosquito breeding and host populations increase the vulnerability of human populations near breeding grounds during summer and early autumn. Most cases of RRV and BFV occur in these months. Northern border regions and coastal areas of Victoria are the areas where these diseases most commonly occur.

Other environmental conditions contribute to increased risk of exposure to disease vectors. For example, cases of Murray Valley encephalitis have been associated with major flooding events and shifting bird populations acting as amplifying hosts. Climate and associated changing environmental conditions contribute to this increased risk.

Public health interventions are directed to these areas. A number LGAs are funded by the department to undertake mosquito surveillance and control measures during the arbovirus season.

Objectives of the regulations

The objective of the current regulations is to prevent the spread of mosquito-borne diseases by controlling mosquito breeding.

Requirements of the regulations

The regulations relate to s. 235(a) of the Public Health and Wellbeing Act, which relate to preventing and abating nuisances.

The regulations aim to remove conditions conducive to mosquito breeding by giving powers to authorised officers to give written directions to owners and occupiers of premises to remove these conditions. The regulations require the person to comply with the direction given to them.

How the current regulations operate

As an example, a person may contact a council complaining about conditions at a neighboring property causing the breeding of mosquitoes such as stagnant water in a bucket or wheelbarrow. In response, an environmental health officer (authorised officer) who has the knowledge and skills to assess mosquito breeding grounds would investigate the matter. Should the environmental health officer confirm there are conditions conducive to mosquito breeding, they would likely advise the owner or occupier of the property to remove stagnant water within a specified time frame. This could be a verbal direction or a written direction at the discretion of the environmental health officer.

Generally, the owner or occupier would comply, and the matter would be resolved without any cost impact. Enforcement such as a prosecution would only be considered for deliberate noncompliance or as a last resort.

The current regulations are response orientated. Complaints and conditions conducive mosquito breeding may be more prevalent after heavy rainfall periods.

Options

- Option 1: Retain the current regulations without changes
- Option 2: Amend some aspects of the current regulations
- Option 3: Remove or reduce the requirements of the current regulations

Option 2 aims to ensure disease vectors, including mosquitoes, are appropriately managed based on their potential future or unknown risk.

Option 1: Retain the current regulations without changes

Remaking the regulations without change would not address controlling emerging vector-borne disease risks.

Authorised officers at the local government level would continue to have powers to give written directions to owners and occupiers of premises, requiring them to remove any condition conducive to mosquito breeding (arbovirus). They would continue to have no authority to order more effective treatments, such as adult mosquito control and residual insecticide treatment of areas of land or buildings,

In addition, this option would not protect the community against the emerging threat that mosquitoes or other disease vectors pose in the context of climate change and exotic incursions. Managing an effective response to an exotic mosquito interception or local transmission of disease, particularly in an urban environment, requires rapid and extensive property access and the ability to provide clear and concise directives. Within the limitations of the current regulations, the potential risk posed by mosquitoes and other disease vectors cannot be managed across their respective lifecycles placing the Victorian community at risk of transmission.

Option 2: Amend some aspects of the current regulations

An emerging risk of vector-borne disease warrants a strengthening of regulations to build on infectious disease control measures.

Mosquito control

This approach would redefine current terms to better define the public health risk and mosquito control measures. This option will:

- replace the term 'arbovirus infection control' with 'vector-borne infectious disease control' and broaden the scope of infectious disease control to include other pathogens spread by mosquitoes, not just viruses
- consider all mosquitoes as having the potential to transmit disease, to ensure nuisance mosquitoes are still appropriately managed based on their potential future or unknown risk, and provide protection against emerging threats
- establish obligations on owners and occupiers of premises to eliminate mosquito breeding grounds and abate conditions conducive to their establishment
- provide authority for orders to be given requesting owners and occupiers of premises to eliminate any mosquito breeding ground and/or take steps to eradicate adult mosquitoes on their land.

Control of disease vectors other than mosquitoes

This approach would also provide for control of emerging and potential vector-borne disease risk. In addition to the above changes to strengthen mosquito control, option 2 would also:

- broaden the scope of infectious disease control measures to include control of defined disease vectors, not just mosquitoes
- define 'disease vector' so that an animal, including a bird or insect, can be the subject of infectious disease control
- give powers to the Chief Health Officer to issue a disease vector control notice to address an existing material public health risk caused by a disease vector
- give powers to authorised officers (appointed by a local council and other authorised officers) to control disease vectors when a disease vector control notice has been issued.

It would be expected that such a notice would be applied in circumstances where a transmission risk is known to be present in an animal, such as the transmission of psittacosis from infected birds, where transmission to humans is actively occurring within the affected community. A further example is a rodent infestation is causing an increase in human disease of Leptospirosis in a particular community or area. In this instance a disease vector control notice can be issued to explicitly order to the removal of the source of the public health risk. The impact of these examples would be similar to mosquito control activities, as the public health risk is comparable.

Infringement penalties

To address the gap between existing measures to achieve compliance such as education, notices and prosecution, it is intended that offences be enforced by way of an infringement notice, also known as infringement offences. This approach provides a proportionate and graduated response and a practical means of addressing noncompliance (including public health risk). It is expected that education and assisted compliance (making sure regulated entities are aware of, and understand, the requirements) will form the primary means of achieving compliance with the regulations. Please see chapter 13 for a list of proposed infringement offences.

Option 3: Remove or reduce the requirements of the current regulations

Removing or reducing requirements in the regulations would limit the ability of state and local governments to address the risk of vector-borne disease.

Removing or reducing the powers of authorised officers to give written directions to prevent mosquito breeding would limit the ability to control transmission of vector-borne diseases.

The general nuisance provisions in the Public Health and Wellbeing Act would become the mechanism relied upon by local government authorised officers to address vector-borne diseases. This will likely result in inconsistent application of the provisions and would contribute to an increased incidence of mosquito-borne diseases.

Section 61 of the Public Health and Wellbeing Act makes it an offence for a person to cause a nuisance or knowingly allow or suffer a nuisance to exist on, or emanate from, any land owned or occupied by that person. The nuisance provisions are broad and may constitute a range of matters of things which are, or are liable to be, dangerous to health or offensive. For example, noise or emissions and animals capable of carrying a disease transmissible to human beings. Because the nuisance provisions are purposely broad in nature and lack specificity, time is often required to investigate, gather suitable evidence and determine whether a nuisance exists, and if so, the appropriate response.

Currently, r. 12 'Prevention of mosquito breeding' clarifies that conditions conducive to the breeding of mosquitoes are a nuisance. This is because mosquitoes may be vectors of arbovirus and a public health risk. This regulation removes the need to establish a nuisance in certain circumstances and enables authorised officers to promptly address conditions that may be a public health risk through a direction.

Impact analysis

This section considers the impact of the three options posed above.

Avoided burden of disease

In Victoria, infectious diseases caused by arboviruses spread by mosquitoes include RRV, BFV, West Nile strain Kunjin virus and Murray Valley encephalitis.

Mosquitoes have also been suggested to be one of the possible vectors for Buruli ulcer.

There is also an increasing risk of exotic species of mosquitoes potentially establishing in Victoria and transmitting exotic viruses such as dengue, yellow fever, chikungunya and Zika.

While mosquitoes are responsible for most vector-borne disease burden in Victoria, other organisms may also serve as vectors (for example, flies, rodents or ticks).

Each of the options will variably affect the burden of disease as outlined below.

Option 1: Retain the current regulations without changes

If the current regulations are remade with no changes, improvements in the management of public health and public health risk would not be expected. This option does not provide for improved infectious disease control through more effective mosquito or vector control measures, nor does it address the actual or potential spread of vector-borne pathogens other than arboviruses. Additionally, option 1 does not provide for managing emerging threats posed by exotic mosquito incursions and local transmission of disease from exotic pathogens.

Authorised officers would continue to lack authority to order more effective treatments across the full lifecycle of mosquitoes in line with integrated mosquito management guidelines collectively established by local and state governments.

Option 2: Amend some aspects of the current regulations

Option 2 provides for improved infectious disease control through more effective mosquito control measures and addresses the actual and potential spread of vector-borne pathogens including arboviruses. This option also provides for managing emerging threats posed by exotic mosquito inception and local transmission of disease from exotic pathogens.

This option provides authorised officers with more authority, enabling them to direct effective treatment actions across the full lifecycle of mosquitoes in line with integrated mosquito management guidelines. Additionally, it provides authority to address risks posed by other vectors, not just mosquitoes.

Option 2 also provides for improved infectious disease control from vectors other than mosquitoes and provides greater benefit. Option 2 also provides for improved infectious disease control from vectors other than mosquitoes and provides greater benefit. The broader powers enable a more targeted and rigorous response to vector-borne infectious disease outbreaks, which are designed to minimise the transmission of infectious disease to humans. Additionally, this option better aligns with the precautionary and primacy of prevention principles under the Public Health and Wellbeing Act. The public health benefits and associated reduction in infectious diseases outweigh any increase in cost.

Avoided impacts of an outbreak

The proposed regulations establish mechanisms for controlling adult mosquitoes, mosquito breeding grounds and other disease vectors to reduce the potential for vector-borne infectious disease outbreaks in Victoria.

The proposed regulations will help improve awareness of vector-borne infectious disease risks in Victoria and build statewide capacity to implement appropriate vector control measures. The changes will also ensure owners and occupiers of premises have a duty of care to eliminate mosquito breeding grounds and authorised officers have the powers they need to enforce appropriate mosquito control measures.

Additional powers will also enable the department to intervene in controlling vectors other than mosquitoes to improve the response to actual or potential impacts of a vector-borne disease outbreak.

Costs for industry to implement the regulations

The department currently funds mosquito prevention and control programs across the state in collaboration with local government authorities in vulnerable areas across the state. This practice will be strengthened by greater regulatory support and transparency, allowing for activities to continue in new areas without a direct cost to the owner or occupiers of premises in Victoria.

It is proposed that owners and occupiers of land in Victoria will have a duty of care to control and manage the breeding of mosquitoes on their properties. This requirement will involve limiting conditions on the premises that are conducive to the establishment of mosquito breeding. For example, removal of water-holding containers such as large tyres and plastic containers.

For example, in an urban setting, removal of water holding containers such as large tyres and pot plants which harbour container-breeding mosquito species, that are known to spread disease. In an agricultural setting, these requirements would strengthen the duty of care that land owners have for appropriate water management practices. These include irrigation methods, adopting modern principles, sustainable water management practices, and limiting the conditions for pooling of water/preventing large bodies of standing water. These activities directly contribute to the reduction in mosquito breeding areas at no discernible financial cost to the owner or broader communities.

However, this option may impose some small additional costs for property owners to eradicate adult mosquitoes or any other identified disease vector. However, costs will be variable and difficult to quantify. They are influenced by factors such as the incidence of mosquitoes and other identified disease vectors, weather conditions such as rainfall and identified public health risk.

As an example, if the Chief Health Officer issues a disease vector control notice, a council authorised officer may need to respond by issuing a direction to abate certain conditions or eradicate the disease vectors on the premises. There may be some costs on a property owner to comply with a direction. This could involve engaging the services of a licensed pest control operator to eradicate the identified disease vectors, estimated at between \$100 to \$500.

Cost for government to enforce the regulations

Local governments are unlikely to incur additional enforcement costs as they already employ authorised officers who carry out nuisance investigations and enforcement. This option aligns with existing response processes such as receiving a complaint, investigating the matter, issuing a direction and following up on compliance.

There may be legal costs for local governments if enforcement action leads to prosecution.

The department already supports local governments to provide education and health promotion activities aimed at eliminating mosquito breeding grounds and potential disease outbreaks.

Government departments, authorities, agencies and other organisations with responsibilities managing public land and waterways will be subject to the proposed regulations. As highlighted above, the duty of care is largely associated with improved water management and land use practices and can be achieved at a minimal cost.

As a part of the implementation the department will work with these stakeholders to review the integrated mosquito management guidelines to ensure the guidelines are effective.

Option 3: Remove or reduce the requirements of the current regulations

If the current regulations are removed or reduced, councils could incur additional enforcement costs. This is because their investigations of nuisance associated with mosquito breeding may need to be more extensive to make a case of nuisance under the general nuisance provisions of the Public Health and Wellbeing Act. The additional burden on councils could lead to less effective enforcement action, resulting in reduced mosquito control and an increased likelihood of mosquito-borne disease outbreaks. Additionally, local and state governments will have no ability to control emerging mosquito-borne disease risks, and risk associated with other disease vectors.

Proposed approach

Option 2: Amend some aspects of the current regulations

Based on the above impact analysis the preferred option is option 2: Amend some aspects of the current regulations.

This option will strengthen the regulations to build on infectious disease control measures.

In addition, this option is expected to benefit the people of Victoria by providing improved infectious disease control through more effective mosquito and other disease vector control measures. This will address the actual and potential spread of vector-borne pathogens including arboviruses and help manage emerging threats posed by exotic mosquito inception and potential local transmission of disease from exotic pathogens.

This option is also expected to benefit the Victorian community by providing authorised officers with additional clarity around the management of mosquito across the full lifecycle and adding the ability to address other disease vectors. Overall, this will enable authorised officers to reduce the risk to public health in the Victorian community.

Accessing the full regulatory impact statement

Information on infringements, consultation, implementation, evaluation and the exposure draft regulations are contained in the full regulatory impact statement available on the [Engage Victoria website](https://engage.vic.gov.au) <https://engage.vic.gov.au>.

This extract was prepared to assist stakeholders who access the report by accessing a specific category on the Engage website. This is not intended to limit the scope of submissions; the department welcomes submissions from all interested parties.

Making a submission to the review

Public comment is invited on the proposed regulations and RIS. Please note that all comments and submissions received will be treated as public documents.

Comments and submissions should be received by the Department of Health and Human Services no later than **5.00 pm, Monday 30 September 2019**.

The Engage Victoria website is the preferred method for receiving submissions. Submissions can also be received by [emailing the department](mailto:phwa.enquiries@dhhs.vic.gov.au) <phwa.enquiries@dhhs.vic.gov.au>, or post, marked 'Submission to the Review of the Public Health and Wellbeing Regulations 2009' and addressed to:

Chief Health Officer
Regulation, Health Protection & Emergency Management
Department of Health and Human Services
GPO Box 4057
Melbourne VIC 3001

Copies of the RIS and proposed regulations can also be obtained from the [Engage Victoria website](https://engage.vic.gov.au) <https://engage.vic.gov.au/>.