Queensland

Public Health and Other Legislation Amendment Regulation (No. 1) 2007

Regulatory Impact Statement for SL 2007 No. 86

made under the

Public Health Act 2005

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1 TITLE

Regulatory Impact Statement – Proposed Regulation for the Prevention of Public Health Risks and Childhood Contagious Conditions

Under the *Statutory Instruments Act 199*2, if a proposed regulation is likely to impose appreciable costs on the community, or part of the community, a Regulatory Impact Statement (RIS) must be prepared before the regulation is made.

A RIS is designed to determine whether or not a proposed regulation is the most efficient and effective way of achieving desired policy objectives. It does this by providing a mechanism by which the Government's policy deliberations are clearly documented and subject to public scrutiny.

The purpose of this document is to explain the need for amendments to the *Public Health Regulation 2005* and to present an evaluation of the likely costs and benefits that would flow from the adoption of these amendments in comparison with other options explored.

All members of the community are invited to comment on the information presented in this RIS.

2 BACKGROUND

2.1 THE PUBLIC HEALTH ACT 2005

The *Public Health Act 2005* (the Act) was assented to on 2 November 2005. The Act is the result of an extensive review of the current public health provisions in the *Health Act 1937*. The review focused on:

- removing outdated regulatory requirements and omitting provisions that were duplicated in other legislation;
- modernising the approach to traditional public health concerns and updating legislation in accordance with modern drafting practices; and
- ensuring that Queensland's public health legislation has sufficient regard for fundamental legislative principles, by achieving an appropriate balance between the need to protect the health of the public and the need to safeguard the rights of individuals.

The Act has a staggered commencement, with some provisions commencing on 1 December 2005 and the remaining provisions commencing during 2006.

2.2 THE PUBLIC HEALTH REGULATION 2005

The *Public Health Regulation 2005* (the Regulation) commenced on 1 December 2005. This Regulation contains matters relating to Chapter 3 (Notifiable conditions) of the Act. A RIS was not published at that time due to the urgency required in ensuring that sufficient legislative provisions were available to deal with a potential avian influenza outbreak. The statutory exception to the requirement to publish a RIS under section 46(2) of the *Statutory Instruments Act 1992* was invoked.

However, to ensure the principles of the *Statutory Instruments Act 1992* are maintained, and to enable full and proper disclosure of the impact the notifiable conditions regulations may have on the community, information about these regulations are provided in Part 14 of this document.

3 PROPOSED AMENDMENTS TO THE PUBLIC HEALTH REGULATION 2005

The proposed amendments to the *Public Health Regulation 2005* cover two main subject areas –

Public health risks provisions:

- measures for the handling and removal of asbestos;
- measures for the control of mosquitos; and
- measures for the prevention and control of vermin.

Contagious conditions provisions:

- specifying the conditions; and
- establishing the infectious periods for the contagious conditions.

Section 43 of the *Statutory Instruments Act 1992* requires a RIS to be prepared if the proposed subordinate legislation is likely to impose an appreciable cost on the community or part of the community.

For the purposes of this RIS, all aspects of the proposed amendments to the Regulation are taken to impose an appreciable cost on the community or part of the community.

3.1 PUBLIC HEALTH RISK PROVISIONS

The proposed public health risk provisions are designed to complement the environmental health provisions of the Act (Chapter Two). The Act enables an authorised person (such as a local government environmental health officer) to issue a "public health order" to a person who is responsible for a "public health risk" at a place. The public health order may require a person to remove or reduce the risk to public health. Public health risk is broadly defined in section 11 of the *Public Health Act 2005*.

Asbestos in non-workplace settings

Home renovators will be prohibited from removing 10m^2 or more of asbestos containing materials unless they are certified to do so by Department of Industrial Relations. The proposed regulation will also prohibit the use of certain methods that increase the risk of airborne asbestos fibres being produced. For example, the use of power tools to sand asbestos cement sheeting will be prohibited. The proposed regulation will require people to take reasonable measures when handling or removing

asbestos to minimise the risk of harm. Requirements for the disposal of asbestos products will also be included.

Mosquito control measures

Some existing provisions in the *Health Regulation 1996* in relation to mosquitos will be updated. The proposed provisions of the regulation will outline requirements for the manufacturing of rainwater tanks. It will be an offence to manufacture or install a tank that does not comply with the requirements. It will also be an offence if the tank is not maintained in accordance with these requirements. Occupiers will be responsible for ensuring that an accumulation of water or another liquid is prevented from serving as a breeding place for mosquitos.

Vermin control measures

Some existing provisions in the *Health Regulation 1996* are to be retained with modernised language in order to control vermin. Sections 183 and 185 will be retained to help ensure that buildings and drains are constructed to prevent vermin from entering the structure. Section 196 of the *Health Regulation 1996* will also be retained so that it will be an offence for a person to interfere or destroy anything that has been installed for vermin-proofing purposes.

3.2 CONTAGIOUS CONDITIONS PROVISIONS

The proposed contagious conditions provisions are machinery in nature and give effect to the provisions in Chapter 5 of the *Public Health Act 2005*. These provisions provide mechanisms to prevent the spread of contagious conditions amongst children at a school or a child care service. The proposed regulation will prescribe the contagious medical conditions that will be "contagious conditions" and the prescribed periods for children to remain away from school or a child care service.

4 AUTHORISING LAW

Section 61 of the Act enables a regulation to be made about public health risks including:

(a) measures to control designated pests, including –

- standards for the proofing of any building against designated pests; and

- procedures to be followed to prevent the breeding of, to eliminate any refuge or food source for, or to eradicate, designated pests; and
- the imposition of a permit system for keeping designated pests; and

(b) measures to prevent and control public health risks.

Section 158 of the Act enables a regulation to be made to prescribe certain medical conditions as contagious conditions. Section 160 of the Act enables a regulation to establish different prescribed periods during which children suspected of having a contagious condition are to be kept away from a school or child care service.

5 POLICY OBJECTIVES

The primary objective of the *Public Health Act 2005* is to protect and promote the health of the Queensland public. The proposed amendments to the *Public Health Regulation 2005* will support the objectives of the *Public Health Act 2005* by allowing the mechanisms under the Act to operate.

Asbestos provisions

The object of the proposed asbestos provisions is to minimise the risk to public health arising from the inhalation of asbestos fibres due to unsafe handling or removal of asbestos products in non-workplace settings. The proposed provisions of the regulation are also aimed at providing clarity for do-it-yourself home renovators about their responsibilities to protect their own health as well as the health of the occupants of their dwellings and their neighbours when undertaking home renovation work involving asbestos cement sheeting.

Mosquito control provisions

The mosquito control provisions are aimed at reducing the transmission of mosquito borne disease by preventing the breeding of mosquitos.

Vermin control provisions

The vermin control provisions are aimed at reducing the transmission of vermin borne disease by preventing the breeding of vermin.

Contagious conditions provisions

The contagious conditions provisions are aimed at reducing the transmission of serious contagious conditions amongst children attending a school or child care service.

The reason for pursuing these objectives through the proposed subordinate legislation is to provide *enforceable* prevention mechanisms to reduce the incidence of mosquito and vermin borne disease, asbestos related illness and childhood contagious conditions.

6 LEGISLATIVE INTENT

The Government's policy objectives will be achieved by –

- mandating simple and appropriate methods to reduce public health risks associated with asbestos, mosquitos and vermin; and
- prescribing periods that children suspected of having a contagious condition are to be kept away from a school or child care service.

The proposed subordinate legislation is reasonable and appropriate. Although the level of community compliance with public health education campaigns might be high, this may be not sufficient to adequately protect public health.

The public health consequences of a failure to control the public health risks associated with asbestos, mosquitos and vermin, as well as a failure to control the spread of contagious conditions among children justifies an enforceable regulatory scheme. For example –

- While many residents are likely to take mosquito control measures around their dwellings during mosquito breeding periods in response to education campaigns, a significant number may not. Where the lack of compliance leads to an outbreak of a mosquito-borne disease, such as dengue fever, the consequences for individuals infected with the disease can be severe, even fatal. The community bears significant costs in treating infected persons.
- Although most parents of unvaccinated children will voluntarily keep their children from school during an outbreak, the consequences for an unvaccinated child who is sent to school during the outbreak may be severe if he or she contracts the condition. The community would also bear significant costs in treating the child.

7 CONSISTENCY WITH AUTHORISING LAW

The proposed provisions of the regulation are consistent with the authorising law, and have been developed in line with the objectives of the *Public Health Act 2005*.

The objective, as stated in the *Public Health Act 2005,* is to protect and promote the health of the Queensland public. The proposed amendments to the *Public Health Regulation 2005* will give effect to these objectives through measures that are designed to:

- prevent or control public health risks, or to prevent the recurrence of a public health risk; and
- enable action to be taken to minimise the spread of contagious conditions in schools and child care services.

8 CONSISTENCY WITH OTHER LEGISLATION

The proposed asbestos provisions of the regulation are consistent with the legislative scheme to be established under the *Workplace Health and Safety Act 1995* and the *Workplace Health and Safety Regulation 1997*.

In 2005, the Department of Industrial Relations published a RIS, "Workplace Health and Safety Regulation Amendment – extension of licensing requirements for the removal of asbestos containing material", about the additional licensing requirements for workplace settings.[1]

9 OPTIONS AND ALTERNATIVES

9.1 PUBLIC HEALTH RISKS

The alternative method of achieving the objectives of the proposed public health risk provisions is to rely on information and education programs to communicate preventive public health risk strategies.

This method has been considered, but eliminated in favour of the proposed pubic health risk provisions. Although public health education campaigns

1 This RIS is available on the Queensland Office of Parliamentary Counsel's website <http://www.legislation.qld.gov.au/LEGISLTN/SLS/RIS_EN/2005/05SL308R2.pdf >

might result in a high level of community compliance with publicised measures, they do not provide any means to enforce compliance. Given the potential consequences of failing to control the public health risks associated with asbestos, mosquitos and vermin, sole reliance on public health campaigns is unlikely to provide adequate protection for public health. The costs and benefits of the proposed public health risk provisions are discussed below.

9.2 CONTAGIOUS CONDITIONS

In order for the contagious conditions provisions of the *Public Health Act 2005* to operate, it is necessary for regulations to prescribe what medical conditions are to be a "contagious condition" or a "vaccine preventable condition" as well as the periods that children are to be kept home from school or a child care service. Accordingly, no alternative methods of achieving the objectives of the proposed provisions were considered. The costs and benefits of the proposed provisions are discussed below.

10 COST-BENEFIT ANALYSIS FOR ASBESTOS IN NON-WORKPLACE SETTINGS

10.1 BACKGROUND

The object of the proposed asbestos provisions (see Appendix One), is to minimise the risk to public health arising from the inhalation of asbestos fibres due to the unsafe handling or removal of asbestos products in non-workplace settings. The proposed provisions are also aimed at providing clarity for do-it-yourself home renovators about their responsibilities to protect their own health as well as the health of the occupants of their dwellings and their neighbours when undertaking home renovation work involving asbestos cement sheeting.

The proposed legislation has been developed based on the principles that the legislation is:

- consistent, as far as is practicable, with the requirements of Queensland's Workplace Health and Safety ("QWH&S") legislation. This consistency is desirable so that similar safeguards are imposed on all persons working with asbestos, irrespective of whether they are a contractor who is employed to renovate the person's house or a do-it-yourself home renovator;

- easy to understand and capable of being followed by a do-it-yourself home renovator; and
- able to be effectively monitored and enforced by local government.

10.1.1 USE OF ASBESTOS IN AUSTRALIA

Asbestos is known for its strength and resistance to chemicals and heat. As a result, it was commonly used for acoustical, decorative and fire-retardant purposes and as thermal insulation in the construction of buildings.

Australia mined asbestos for over 100 years and was the world's highest user per capita in the 1950s. Although Queensland did not have asbestos mines, occupational exposure to asbestos in Queensland was significant due to the use of asbestos cement sheeting in the building industry between 1945 and the mid 1980s. Asbestos was also used in several manufacturing plants in Queensland. This included four asbestos cement sheeting manufacturing plants, manufacturers of brake liners/heat pads and manufacturers of gaskets.

The loose form of asbestos fibres (friable asbestos) was used for insulation in domestic heaters, stoves and ceiling insulation products. However, ceiling insulation containing asbestos was generally used in commercial buildings and was not used extensively in domestic buildings. It is proposed that these products will be referred to as "friable ACM" in the regulation. See section 2D in Appendix One.

Asbestos cement products such as asbestos-cement sheeting, gutters, downpipes and ridge capping were frequently used in the construction of homes between the 1940s and early 1980s. It is proposed that these products will be referred to as "bonded ACM" in the regulation. See section 2B in Appendix One.

Data from the Australian Bureau of Statistics (ABS) showed that nearly 750,000 dwellings were built before 1984 in Queensland. Overall, Queensland has the third highest number of dwellings built before 1984, after NSW and Victoria (refer to Table 1).

TABLE 1: AGE OF DWELLINGS (ALL HOUSEHOLDS) BY STATE AND TERRITORY

Age (yrs)	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
less than 5	208.4	93.2	135.1	25.7	47.8	7.5	6.8	8.9	533.4
5-9	207.8	152.7	214.6	55	99.2	18.1	5.8	20.1	773.3

Age (yrs)	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
10-14	224.9	156.5	168.3	54.5	105.1	16.3	5.2	15.9	746.7
15-19	221.5	138.2	140.9	49.1	78.1	16.5	13.1	12.5	669.9
20-49	947.4	784.2	408.5	267.8	278.7	86.5	19.5	58.3	2850.9
50 or more	471.7	359.7	197.4	134.2	86.9	42.6	1.4	2.7	1296.3
unknown	0.0	70.8	77.0	28.6	26.4	1.0	1.2	2.3	346.4
Total	2281.7	1755.3	1341.8	614.9	722.2	188.5	53	120.7	7216.9
no. built before 1984	1640.6	1282.1	746.8	451.1	443.7	145.6	34	73.5	4817.1
% built before 1984	71.9%	73.0%	55.7%	73.4%	61.4%	77.2%	64.2%	60.9%	66.7%

Source: ABS Australian Housing Survey 1999

Tables 2 and 3 identify the number of Queensland dwellings that have asbestos cement sheeting as the main material in relation to roofs and outside walls. According to the 1999 ABS Housing Survey, nearly 60,000 dwellings have fibro/asbestos cement as the main roof material, with over 150,000 dwellings having fibro/asbestos cement as the main material of the outside walls.

TABLE 2: MAIN MATERIAL OF ROOF

Material	Separate house	Semidetached	Flat	Total
Fibro/asbestos cement	51,900	n.p.[1]	8,500	60,900
[1]n.p not available for publication but included in totals where applicable				

Source: ABS Australian Housing Survey Queensland 1999

TABLE 3: MAIN MATERIAL OF OUTSIDE WALLS

Material	Separate house	Semidetached	Flat	Total
Fibro/asbestos cement	140,300	1,600	7,000	151,100

Source: ABS Australian Housing Survey Queensland 1999

10.1.2 HEALTH RISKS ASSOCIATED WITH INCORRECT HANDLING OR REMOVAL OF ASBESTOS

Asbestos fibres are widespread in the environment. Everyone breathes in asbestos fibres during their lifetime[2]. The health risks associated with asbestos are dependent on the concentration of asbestos fibres inhaled and the duration of exposure. Inhalation of airborne asbestos fibres is linked to respiratory diseases, including mesothelioma, asbestosis and lung cancer.

Asbestosis and asbestos-related lung cancer are associated with high asbestos exposures over long periods of time consistent with occupational exposure. Short-term exposures to low concentrations of airborne asbestos in the non-occupational environment are associated with very low health risks[3]. Only mesothelioma has been associated with the low exposures likely to occur from infrequent non-occupational activities, such as home renovation carried out by an individual[4].

Epidemiological studies have demonstrated that there is a background incidence rate of mesothelioma in people without occupational, domestic or neighbourhood exposure to asbestos[5]. A definitive exposure-response relationship for asbestos and mesothelioma is not well established. Consequently, the precautionary principle would require that preventative measures are necessary to minimise the levels of asbestos fibres that may become airborne during a home renovation undertaken by a do-it-yourself home renovator.

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2 enHealth (2005) *Management of Asbestos in the Non-Occupational Environment* Department of Health and Ageing available at <http://enhealth.nphp.gov.au/council/pubs/pubs.htm>

3 enHealth (2005) *Management of Asbestos in the Non-Occupational Environment* Department of Health and Ageing available at <http://enhealth.nphp.gov.au/council/pubs/pubs.htm>

4 <http://www.abc.net.au/rn/talks/bbing/stories/s1116571.htm>

5 Exposure has been estimated as one per million person-years: enHealth (2005) *Management of Asbestos in the Non-Occupational Environment* Department of Health and Ageing available at <http://enhealth.nphp.gov.au/council/pubs/pubs.htm>

Most asbestos related illnesses in Australia have been due to workplace exposure. Australia has the highest reported national rates of mesothelioma in the world. There have been approximately 7,515 cases recorded from 1945 until June 2003. It is estimated that another 11,000 cases will appear by 2020[6]. For the period 1980-2001, Queensland followed NSW and Victoria with the third highest number of mesothelioma notifications, with 983 notifications, or 15.5% of the total mesothelioma notifications[7]. This is due to past high concentrations of airborne asbestos fibres in the occupational environment, combined with long periods of exposure[8].

The number of people who may develop mesothelioma as a result of home renovations undertaken in Queensland is difficult to determine. While the number of people who contract mesothelioma is reported through the Australian Mesothelioma Register, the definitions of exposure are broad and rely on a person's memory of their exposure, usually 25 to 40 years before their diagnosis. Of the 1,201 cases of mesothelioma notified to the register from 1999 to 2001, where a past asbestos exposure could be established, 87% were considered work related, 4% were not work-related and the rest (9%) could not be classified[9].

10.1.3 ESTIMATION OF HOME RENOVATORS AFFECTED IN QUEENSLAND

The frequency and scale of renovations undertaken by homeowners in Australia has increased by approximately 43% over the last six years[10]. It is estimated that most houses built or modified in Queensland between the 1940s and early 1980s would contain asbestos products. The types of building materials that were commonly used include: asbestos cement

6 Leigh, J and T Driscoll (2003) Malignant Mesothelioma in Australia, 1945-2002 *International Journal of Occupational Environmental Health*, Volume 9, pp 206-217.

7 Leigh, J and T Driscoll (2003) Malignant Mesothelioma in Australia, 1945-2002 *International Journal of Occupational Environmental Health*, Volume 9, pp 206-217.

8 Leigh, J and T Driscoll (2003) Malignant Mesothelioma in Australia, 1945-2002 *International Journal of Occupational Environmental Health*, Volume 9, pp 206-217.

9 National Occupational Health and Safety Commission (2004) *The Incidence of Mesothelioma in Australia 1999 to 2001 Australian Mesothelioma Register Report 2004*

10 Australian Bureau of Statistics 2005: 8731.0 Australian Building Approvals

sheeting, imitation brick cladding, underlay sheeting for floor and ceramic tiles and corrugated asbestos roofing. These materials may pose a risk to home renovators if they are unaware that they may contain asbestos and do not take appropriate steps when handling them.

Data relating to the amount of renovation activity is measured in alterations (potentially involving the removal of asbestos cement sheeting materials) and additions to residential buildings where the cost is >$10 000. Australian Bureau of Statistics figures indicate that in the past 6 years there has been an upward trend in the investment in alterations and additions to residential buildings rising from approximately $300 million in November 1999 to approximately $430 million in November 2005,[11] representing a 43% increase over that time.

Queensland figures also indicate significant investment in additions and alterations to residential buildings, and continued growth activity in this area. Though these figures represent relatively large additions or alterations (>$10,000) they indicate that home renovation is an important activity in Queensland and that smaller unreported DIY renovation activity would also be expected to be significant.

In Australia, more than half (58%) of owner-occupiers have carried out renovations to their current dwellings between 1992 and 2002[12]. This means that of the total 5 million owner occupier dwellings, some renovation activity occurred in 2.9 million dwellings in the past 10 years. The majority of the houses renovated were older houses, increasing the number of persons potentially exposed to asbestos.

In 2000, 89 cases of mesothelioma were reported for Queensland[13]. Based on 1999-2001 data, 87% (approximately 77 cases) of these could be attributed to occupational exposures. Depending on the assumptions made about the contribution that exposure during domestic renovation activities makes to the non-occupational contribution to mesothelioma cases, approximately 4 to 12 reported mesothelioma cases in Queensland in 2000 may be attributed to home renovation activities.

This is consistent with the figures provided by the RIS published by the Department of Industrial Relations in 2005 that predicted that

11 Australian Bureau of Statistics 2005: 8731.0 Australian Building Approvals

12 Australian Bureau of Statistics 2002: Australian Housing Survey

13 National Occupational Health and Safety Commission (2004) The Incidence of Mesothelioma in Australia 1999 to 2001 Australian Mesothelioma Register Report 2004

approximately 330 lives could be saved over the next 30 years as a result of the Department's new licensing requirements for the removal of asbestos containing materials in the workplace[14]. This figure included builders and other workers engaged to perform work as well as onlookers.

10.1.4 IMPACT OF ASBESTOS TREATMENT AND COMPENSATION COSTS

As the treatment and compensation costs in the non-occupational setting have not yet been accurately quantified, statistics from the occupational setting have been included as an indication.

In Queensland, the number of compensated asbestos-related fatalities has increased by a factor of three-to-four since the early 1990s. On average there are 20 compensated asbestos-related fatalities in Queensland each year. In Queensland, between 1992-93 and 2002-03, there were 147 asbestos-related fatalities. For workplace settings, it is estimated that future asbestos claims in Australia may reach $6 billion, with the average payout of $250,000 for an asbestos claim[15]. There is evidence that consumer claims have also increased. In a review of claims and payouts by the NSW Dust Diseases Tribunal, Turner Freeman found that 42% of all claims filed related to James Hardie products, compared with 37% in 2001[16].

The cost of Queensland inpatient public hospital treatment for mesothelioma including non-clinical costs (such as inpatient pathology and physiotherapy costs) for the 2005 financial year was $1,068,787. In addition to these inpatient costs, additional costs are incurred such as post-hospital treatment, rehabilitation and ongoing pathology and physiotherapy costs. While these treatment costs are not distinguishable between occupational and non-occupational exposure, they are a key indicator of the impact of asbestos exposure. The RIS published by the Department of Industrial Relations in 2005 indicated that the average

14 The RIS was published for the extension of licensing requirements for the removal of asbestos containing materials and is available at: <http://www.legislation.qld.gov.au/LEGISLTN/SLS/RIS_EN/2005/05SL308R2.pdf >

15 Actuarial report undertaken by Trowbridge Deloitte quoted in Quinlivan, B. "Powder Traces" *Business Review Weekly* June3-9, 2004.

16 Andrew Smith, plaintiff lawyer from Turner Freeman, quoted in Quinlivan, B. "Powder Traces" *Business Review Weekly* June3-9, 2004.

treatment cost per mesothelioma case was $57,000[17]. Assuming that 4 to 12 cases per year may be conservatively estimated to arise from domestic renovation activity, the cost per year in Queensland is estimated to be between $228,000 and $684,000. These figures do not include compensation costs.

10.2 Legislative responses to asbestos

In the occupational setting, the National Occupational Health and Safety Commission (NOHSC) declared national codes of practice to regulate the handling and removal of asbestos products. Although these codes of practice are not applied consistently across Australia, there has been a national ban on the import and use of asbestos since December 2003.

The Queensland Government is committed to adopting NOHSC codes and standards to facilitate national consistency in occupational health and safety regulation across Australian States and Territories. Consequently, QWH&S legislation has incorporated the codes to regulate the handling and removal of asbestos containing materials in the workplace. QWH&S requires a business to be certified for the removal of friable asbestos, ("friable ACM"), which is recognised as being a higher risk material as the asbestos fibres are unbonded and can easily become airborne and inhaled. QWH&S legislation was recently amended to introduce a further certification process for workers who are removing 10m^2 or more of bonded asbestos materials[18]. A similar certification process is being developed in New South Wales, Victoria and the Australian Capital Territory.

Currently in Queensland, activities involving the handling or removal of asbestos in non-workplace settings are not specifically regulated. There are general provisions in the *Health Act 1937* that enable local governments to take action to abate a "nuisance"[19]. However, these provisions do not

17 The RIS was published for the extension of licensing requirements for the removal of asbestos containing materials and is available at: <http://www.legislation.qld.gov.au/LEGISLTN/SLS/RIS_EN/2005/05SL308R2.pdf >

18 *Workplace Health and Safety Regulation 1997* as amended by the *Worker's Compensation and Rehabilitation and Other Legislation Amendment Regulation (No. 1) 2005*

19 A nuisance includes "premises in such a state as to be a nuisance or injurious or prejudicial to health *Health Act 1937*, section 77(a).

establish specific measures to be adopted when handling or removing asbestos.

Homeowners undertaking work on their own homes currently have no additional legislative restrictions on the way they may undertake renovations. Consequently, adequate measures are required to protect home renovators, their families and neighbours, who could be at risk of exposure to asbestos fibres.

Queensland Health has committed $650,000 for an asbestos awareness campaign. The campaign will be run in collaboration with the Department of Industrial Relations to publicise the new certification requirements for people removing 10m^2 or more of asbestos cement sheeting and to provide information to do-it-yourself home renovators about appropriate measures for handling, removing and disposing asbestos products.

The State Government funded Health Contact Centre will be available state-wide in May 2006 to field health related enquiries and will be promoted as the initial point of contact for people with inquiries about asbestos in the non-workplace setting. An initial sum of $50,000 has been allocated to fund the anticipated increase in asbestos related inquiries received by the Health Contact Centre. Additional funds may be required in the future depending on the use of this service for asbestos related enquiries.

10.3 BENEFITS OF PROPOSED PROVISIONS ABOUT ASBESTOS

The asbestos provisions are expected to reduce the public health impact of asbestos related illnesses by reducing the overall level of exposure to asbestos fibres in non-workplace settings.

By mandating practical and clear measures to be taken when handling asbestos, the risk of asbestos fibres being released and subsequently inhaled will be reduced. This will decrease the level of asbestos fibres that a person is exposed to, which in turn reduces the risk of the person developing an asbestos related illness.

The introduction of licensing requirements for the removal of friable ACM and 10m^2 or more of bonded ACM, will ensure that people undertaking these activities have the required knowledge and training to remove these materials in a manner that limits the release of asbestos fibres. The competencies that a person must have to receive a certificate include adequate use of personal protective equipment, strategies for risk

assessment and management plans for the work being undertaken. These competencies will further reduce the levels of asbestos fibres that may be inhaled.

10.4 COSTS OF PROPOSED PROVISIONS ABOUT ASBESTOS

10.4.1 IMPACT ON HOME RENOVATORS

10.4.1.1 Prohibitions on removal for the home renovator

To be consistent with the approach taken in workplace settings, the proposed provisions of the regulation will prohibit a do-it-yourself home renovator from removing:

- friable ACM
- $10m^2$ or more of bonded ACM unless the person is certified by the Department of Industrial Relations.

Friable ACM

The prohibition on the removal of friable ACM will require a home renovator to employ a certified person if asbestos materials are to be removed. See section 2D of Appendix One.

Friable ACM was used extensively in workplaces as an insulation material and is not expected to be present in domestic premises in Queensland. However, anecdotal reports have indicated that insulation and lagging from a worksite may have been taken home and installed in the worker's home. The precautionary principle has been applied to ensure people are not exposed to this high risk friable material. The loose structure of the asbestos fibres makes them easily inhaled, placing these products in a higher risk category requiring specialist removal methods and equipment for safe handling. The NOHSC Code of Practice recommends a range of controls, including the use of containment devices, negative pressure exhaust units and decontamination units when friable ACMs are being removed.

The cost implications regarding the certification for friable asbestos requirements were addressed in the RIS released by the NOHSC in 2005[20].

Bonded ACM

It is proposed that a person must not remove a quantity of bonded ACM that is 10m^2 or more unless the person holds a certificate to carry out the removal under the *Workplace Health and Safety Act 1995*. See section 2E of Appendix One.

It is acknowledged that some do-it-yourself home renovators may circumvent the legislative intent by undertaking consecutive removal work each less than 10m^2. Provided each job is completed by cleaning up and correctly disposing of any waste as well as sealing any remaining in situ bonded ACM before proceeding to the next section, the person will be complying with the proposed provisions of the regulation. The health risks associated with the consecutive removal of less than 10m^2 of bonded ACM in accordance with the provisions of the regulation are expected to be minimal. The proposed provisions of the regulation are designed to minimise the volume of bonded ACM being worked on at any one time by the home renovator in order to reduce the risk of asbestos fibres being released. Removing less than 10m^2 at a time is a manageable area that can be safely and appropriately handled by the home renovator.

The cost of becoming certified by the Department of Industrial Relations and the costs involved in employing a certified person to remove 10m^2 or more were also addressed in the RIS released by the Department of Industrial Relations in 2005[21]. The cost of obtaining a licence from the Department of Industrial Relations (Division of Workplace Health and Safety) is $47.10 for a 2 year licence. The cost of attending an asbestos awareness course is approximately $110.

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20 National Occupational Health and Safety Commission (2005) *Regulatory Impact Statement: Codes of Practice and Guidance Note for Asbestos* Canberra Available at <http://www.nohsc.gov.au/PDF/Standards/RIS/RIS-GN-Asbestos.pdf>

21 Available at <http://www.legislation.qld.gov.au/LEGISLTN/SLS/RIS_EN/2005/05SL308R2.pdf>

Referred to in the section "Consistency with other legislation" in this RIS

10.4.1.2 Other prohibited activities

Medical experts regard asbestos cement sheeting as safe if left undisturbed and unweathered.[22] It becomes a health risk when the bonded structure is disturbed resulting in the release of asbestos fibres. Airborne asbestos fibres can then be inhaled. Consequently the proposed precautions are to be applied irrespective of the volume of work being undertaken. These provisions will ensure that home renovators are required to follow similar precautions to those preventive measures considered necessary in the workplace area to minimise the risk to home renovators, their children and neighbours.

The proposed asbestos provisions clearly establish that certain activities are prohibited such as:

- the use of power tools to cut or clean asbestos containing materials ("ACM")[23]; or
- using high pressure water processes to clean ACM; or
- using compressed air to clean ACM.

Accordingly, more labour intensive methods may be required, such as taping the asbestos product and hand drilling in order to control airborne asbestos fibres. To comply with these provisions, a home renovator may need to purchase a hand drill (approximately $14) and some masking tape (approximately $3 per roll).

The measures proposed in the regulation are consistent with the measures outlined in the NOHSC Codes and the QWH&S legislation. However, NOSHC Codes have not been referenced directly in the proposed asbestos provisions of the regulation as the NOHSC Codes are detailed documents that are technical in nature and are impractical for the non-workplace setting.

In addition to the proposed provisions of the regulation, material explaining the measures to be taken will be distributed to members of the public. This information will increase awareness about the practical measures necessary to prevent and control the risks to public health associated with the unsafe handling or removal of asbestos products in non-workplace settings.

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22 enHealth (2005) *Management of Asbestos in the Non-Occupational Environment* Department of Health and Ageing available at <http://enhealth.nphp.gov.au/council/pubs/pubs.htm>

23 See Appendix One, section 2B of the proposed asbestos provisions.

10.4.1.3 Additional precautions to be taken when handling or removing bonded ACM

A home renovator who is handling or removing bonded ACM will be required to ensure that any broken surface of the bonded ACM that is left *in situ* will be sealed. This provision is to prevent the release of asbestos fibres from the broken surface.

The proposed regulation also requires the home renovator to take reasonable measures to minimise the risk of asbestos fibres being released. These measures may include:

- spraying water or a coat of PVA glue on the ACM;
- using vacuum cleaning equipment that complies with AS 3544 to collect asbestos fibres;
- cleaning all equipment that is contaminated with ACM;
- wetting the work area before sweeping up ACM;
- ensuring as far as practicable, that ACM is not broken or abraded;
- wearing person protective equipment to minimise the person's exposure to airborne asbestos fibres.

These suggested measures formalise current guidelines and advice that is given to home renovators to prevent or minimise the release of asbestos fibres. Householders should already be undertaking these measures when working with or disposing of asbestos containing materials. The requirements of the proposed regulation will not impose an increased cost to home renovators that are currently undertaking precautionary measures. However, it is acknowledged that the guidelines and advice are not mandatory and it is likely that home renovators are undertaking work without appropriate precautions.

Examples of the costs associated with the measures in the proposed regulation include:

- Sealant or PVA glue – approximately $4-$6 for 250mL
- Vacuum cleaner that complies with AS3544 - hire companies do not have vacuum cleaners available that comply with AS3544, domestic models do not comply with AS3544, industrial models are available but cost at least $1000.
- Broom - $5-$10
- Spray bottle (atomiser) - $3-$5

- PPE – Gloves ($3), disposable respirator ($9), disposable overalls ($12) = $24

Separate requirements are proposed for the disposal of associated asbestos waste. The proposed provisions will require home renovators to:

- Separate asbestos waste from other waste;
- Wrap asbestos waste in heavy-duty polyethylene sheeting, or place in a polyethylene bag, that is at least 0.2mm thick and labelled with the words "ASBESTOS WASTE" in letters that are at least 5cm high and clearly visible; and
- Dispose asbestos waste at a site approved by a local government for the disposal of asbestos waste.

10.4.2 IMPACT ON LOCAL GOVERNMENT

10.4.2.1 Enforcement tools

Local government will be responsible for administering and enforcing the proposed asbestos provisions of the regulation. Local governments will have a range of enforcement tools under the *Public Health Act 2005* to enforce the proposed provisions.

Public health orders

Under Chapter 2 Part 3 (Public health orders) of the *Public Health Act 2005*, an authorised person may issue a public health order where they reasonably believe that a person is responsible for a public health risk. The public health order can require the person to stop work immediately, as well as to undertake action to remove or reduce the risk to public health from the public health risk. The dispersal or release of a by-product of manufacturing, construction, repair, alteration, cleaning or demolition work at a place other than a workplace that is or is likely to be hazardous to human health, such as the release of asbestos fibres through the renovation of a house containing asbestos-cement sheeting is a public health risk (see section 11 of the *Public Health Act 2005*).

As detailed in the proposed asbestos provisions (see Appendix One),, a breach of a public health order may result in the authorised person issuing an on-the-spot fine. For individuals this fine will be 5 penalty units ($375) and for a corporation the fine will be 25 penalty units ($1,875). The person who issued the public health order may also apply to a magistrate for an

order enforcing the public health order (see section 24 of the *Public Health Act 2005*). It is envisaged that this mechanism will only be used very rarely as the presence of an Environmental Health Officer and information that an on-the-spot fine may be given for non compliance with a public health order, will be sufficient in most cases for the person to stop causing the public health risk and to take the actions specified in the order.

Approved inspection programs

In addition to the public health order mechanisms, under Chapter 9 Part 4 (Approved inspection programs), the chief executive officer of a local government has the power to instigate an "approved inspection program" to monitor compliance with a regulation of the *Public Health Act 2005* (such as the asbestos regulations). As required by section 428 of the *Public Health Act 2005*, the details of the program must be published at least 14 days before the program commences and state:

- the area that the approved inspection program will cover;
- the purposes and scope of the program;
- when the program starts and ends;
- who is to undertake the program.

Approved inspection programs will enable local governments to monitor the effectiveness of the regulatory provisions and to take appropriate action to educate owners and occupiers of their responsibilities. It is envisaged that it would be rare to undertake an approved inspection program for asbestos related public health risks. However, if a Council becomes aware of significant asbestos renovation work in their local area, an approved inspection program may be appropriate to raise awareness and to provide home renovators with educative material.

It is important to note that the *Public Health Act 2005* does not require local governments to undertake approved inspection programs. The Act enables an approved inspection program to be undertaken if local governments choose to use them. It is the local government's decision to undertake the program and no additional costs will be involved if local governments do not undertake an approved inspection program

On-the-spot fines

As detailed in Appendix One, sections 2D, 2E, 2F, 2G, 2I and 2J have been approved by the Department of Justice and Attorney-General as suitable for inclusion in the *State Penalties Enforcement Regulation 2000*. This will

enable local governments to have a simple and cost effective means of enforcing the relevant asbestos provisions.

There will be a cost to local government for the training of local government officers in procedures to issue the fines. However, the Queensland Health Public Health Act Implementation Team will incorporate this training information in education seminars planned prior to the commencement of the environmental health provisions of the *Public Health Act 2005*.

10.4.2.2 Costs of receiving complaints

Queensland Health has committed additional funds to the Health Contact Centre to support the expected increase in enquiries relating to asbestos resulting from the proposed regulation and the education and awareness campaign. The Health Contact Centre will be promoted as the first point of contact for all asbestos related enquiries and should serve to reduce the number of local government enquiries. Neighbours will be encouraged to raise their concerns with the person undertaking the renovation work where appropriate.

In addition to referrals from the Health Contact Centre, local governments may also receive complaints directly from constituents. The costs involved in receiving and processing an asbestos related complaint for local government has been estimated, from information received by local governments, as approximately $15.86 per complaint.

The number of complaints received by local governments will depend on the level of community compliance with the proposed regulation as well as the level of home renovations undertaken in each community. The level of complaints is expected to vary significantly across the State. For example, in areas where modern housing developments predominate, it is expected that there will be a relatively low level of asbestos related complaints. However, it is acknowledged that it is likely that the number of enquiries or complaints will be increased in the short term as a result of the proposed asbestos awareness campaign to support the introduction of the amendments to the Regulation.

10.4.2.3 Costs of investigation

If a complaint is received and further investigation is necessary, a local government officer may attend the site. Based on cost estimations for an

Environmental Health Officer employed by a local government, it is estimated the maximum cost of investigating the complaint will be approximately $40 per hour (including on costs). Additional costs may be involved for the use of personal protective equipment (approximately $24 for gloves, disposable respirators and disposable overalls). The number of complaints will depend on the level of compliance with the proposed regulation and the effectiveness of the proposed community education strategies.

10.4.2.4 Costs of prosecution

From information obtained from local government, it is rare that a complaint would be taken through to the prosecution stage. All Councils that have been consulted adopt a philosophy that education and strengthening relationships with constituents is preferable to punitive measures. Council may resort to prosecution with repeat offenders or if there is a breach that poses a serious risk to public health.

It is estimated that to take a complaint through to the prosecution phase, a cost to local government would be approximately $3,000 in legal costs plus additional time for Environmental Health Officers to assist in the preparation of a brief. The total time from investigation through to prosecution may involve 14.5 hours for an Environmental Health Officer. Sampling costs may also be incurred which can range from $35 to $75 after an initial establishment fee of between $21 and $128.

In recognition of the serious health risks that may arise and to act as a deterrent to prevent home renovators from breaching a provision of the proposed regulation, the maximum penalties allowed for a breach of the regulation have been applied ($7,500).

10.4.2.5 Insurance Costs

The *Local Government Act 1993* requires a local government to insure itself by way of public liability insurance ($30,000,000) and professional indemnity insurance ($10,000,000) in relation to its exercise of local government jurisdiction (section 1123). Councils have raised concerns that they may not be able to obtain sufficient insurance coverage as a result of the proposed provisions of the regulation.

Information from the Australian Insurance Council indicates that some local government public liability insurance policies currently exclude

asbestos related risks. Due to the volume and expense of asbestos claims in the workplace setting commercial underwriters may be cautious in providing insurance coverage for councils that are investigating asbestos-related complaints in the non-workplace setting, irrespective of the risks posed.

An interagency group consisting of Queensland Health, the Department of Local Government, Planning, Sport and Recreation and the Department of Industrial Relations, is continuing to explore alternatives and options with the Local Government Association of Queensland to ensure that Councils are adequately protected in a cost-effective manner from possible liability arising from the proposed provisions of the Public Health Regulation.

TABLE 4: SUMMARY OF COSTS TO LOCAL GOVERNMENT RELATING TO ASBESTOS PROVISIONS

Staff Costs

Employee	Salary (including on costs) $	Cost per hour $	Hours required for complaint (in hours)	Staff costs $
Administration Officer	53,874	28.58	0.5	14.29
Environmental Health Officer	65,000	34.48	14.5	499.96
Legal Professional -for full prosecution	n/a	n/a	n/a	3,000

Operating Costs

Employee	Yearly cost per full time employee $	Cost per hour $	Hours required for complaint (in hours)	Operating cost for a complaint $
Administration Officer	5,982	3.15	0.5	1.57
Environmental Health Officer	5,982	3.15	14.5	45.68
Legal outlays	n/a	n/a	n/a	200

Laboratory Costs if testing is necessary

Laboratory Costs for Asbestos Testing	Cost
Establishment fee	$21-$128
Per sample in batch	$35-$75

Personal Protective Equipment for investigating a complaint

Personal Protective Equipment	Cost $
Gloves	3
Disposable respirator	9
Disposal overalls	12

10.4.2.6 Waste Management

For a number of years, local governments and the State have researched, developed and implemented a number of successful initiatives to appropriately and safely manage asbestos waste. The proposed regulation will enhance these initiatives with the appropriate waste facilities to be nominated by the relevant local government. In relation to the proposed regulation, a specific requirement exists for local governments to approve the sites where asbestos waste can be disposed of. This requirement enables local governments to determine the most appropriate facilities within their local government area.

The proposed regulations do not replace or circumvent the current requirements to hold an environmental registration for transfer stations, landfills or other sites with the Environmental Protection Agency. However, it does enable local governments to decide where asbestos waste from the non-occupational setting is to be deposited. The requirements for disposal under the regulation will also minimise the risk to local government employees who are currently exposed through unsafe practices, such as the dumping of asbestos waste in wheelie bins and parks.

Local governments will have a simple and cost effective means of enforcing the waste provisions of the regulation. The waste disposal offence in section 2I of the proposed regulation will be included in the *State Penalties Enforcement Regulation 2000*, enabling an on-the-spot fine to be issued.

The disposal of associated asbestos waste in Aboriginal and Torres Strait Islander local government areas or communities is also not a new issue. Problems such as appropriate landfill management and barging of waste from island communities to mainland landfills due to high water tables are known and a variety of initiatives have been developed or are under development to manage them.

10.4.3 IMPACT ON INDIGENOUS COMMUNITIES

It is known that a significant number of houses in indigenous communities have been fully or partly built with asbestos containing materials. Two particular issues to note in terms of asbestos in Aboriginal and Torres Strait Islander communities are that of house ownership and maintenance responsibilities. In the large majority of cases, houses in indigenous communities are owned by the local council. This results in the majority of maintenance and repairs being the responsibility of the council. In terms of the legislation applicable to this situation, all work carried out by councils is covered by current QWH&S legislation as the houses are "workplaces". Consequently, the disposal of asbestos wastes from these sites is regulated under Environmental Protection Agency and QWH&S legislation.

10.5 CONCLUSION

On balance, the benefits of the proposed asbestos provisions outweigh the associated costs. The incidence of asbestos related illnesses from the non-workplace setting can be reduced through the adoption of the simple and relatively inexpensive measures outlined in this RIS. Enforcement costs will be minimised given the capacity to issue on-the-spot fines. Home renovators will still be able to undertake work on their dwellings with some reasonable and affordable measures to ensure they do not expose themselves, their children or their neighbours to asbestos related health risks.

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11 COST-BENEFIT ANALYSIS FOR THE PREVENTION AND CONTROL OF MOSQUITOS

11.1 BACKGROUND

The mosquito provisions in the proposed regulation (see Appendix One) are aimed at reducing the public health impact of mosquito borne disease by preventing the breeding of mosquitos.

The proposed regulation has been developed based on the principals that the legislation is:

- easy to understand and capable of being followed;
- consistent with measures currently in place to reduce the breeding of mosquitos;
- specific about who is responsible for prevention and control measures; and
- able to be effectively monitored and enforced by local government.

Mosquitos transmit a range of illnesses that impact on the health of humans. These include: dengue fever, Ross River fever, yellow fever, malaria, Japanese encephalitis and Murray Valley encephalitis.

11.1.1 DENGUE FEVER IN QUEENSLAND

Dengue fever is the most significant mosquito-borne viral disease in humans, in terms of morbidity, mortality and economic costs. Dengue is an infection caused by a virus in the family *Flavividae*. There are four types of dengue viruses – Dengue 1, 2, 3 and 4 and there are genetic variants of these serotypes in different geographic locations. A person living in a dengue endemic area could have as many as four dengue infections during his or her lifetime. Infection with one serotype confers immunity against subsequent infection with that serotype. Infection may be subclinical (asymptomatic) or may cause illness ranging from a mild fever to a severe, even fatal condition such as dengue haemorrhagic fever (DHF) or dengue shock syndrome (DSS).

Typical dengue fever symptoms include: sudden onset of fever (lasting three to seven days), extreme fatigue, intense headache, muscle and joint pain, loss of appetite, vomiting and diarrhoea, skin rash, minor bleeding from the nose or gums. Hospitalisation may be required depending on the severity of symptoms. DHF manifests itself as plasma leakage leading to shock and can be fatal, particularly among young children. There is no vaccine to provide immunity from dengue.

The World Health Organization (WHO) reports that an estimated 50 to 100 million dengue infections occur worldwide very year including up to 500,000 cases of dengue haemorrhagic fever (DHF). DHF usually affects children under 15 years of age and the average fatality rate with DHF is 5 per cent, although with timely treatment this is often reduced to less than 1 per cent.

Dengue has historically been reported in the Northern Territory, New South Wales and Queensland, but has only been reported in North Queensland since 1990. Transmission of the virus is limited by the distribution of its vector, the mosquito *Aedes aegypti*, which is common to North Queensland. The adult mosquito becomes infected with dengue when it bites a human who is viraemic with the dengue virus (when there is enough dengue virus in the person's blood to infect a mosquito). A patient with dengue can transmit the virus to mosquitos within three to four days of contracting dengue. In 8-10 days the infected mosquito is able to transmit the virus to people. Consequently the cycle of transmission may take only 14 days. One dengue-infected female mosquito is capable of biting and infecting several people during one feeding session. Approximately 600,000 people live in the dengue outbreak areas in Northern Queensland.

It only takes one imported case of dengue to start an outbreak. Because dengue is not endemic to Australia, local dengue outbreaks all begin with a single imported case (such as an international traveller or a resident returning home from overseas). Since 1999, Queensland Health has been notified of an average of 10 imported cases to North Queensland per year. Approximately 60 per cent of these cases were from Papua New Guinea (PNG) and East Timor, with most of the remainder coming from Thailand, Bali and the South Pacific nations.

The rapid spread of a dengue outbreak is demonstrated by an outbreak that started in December 1997, in a Cairns guesthouse. The first confirmed dengue case of the outbreak was a man who had not travelled recently, but reported that several people at the guesthouse had a similar illness. Meanwhile residents of premises adjacent to the guesthouse and workers on a nearby construction site also became unwell. By March 1998, the outbreak had spread to the Northern Beach area of Cairns and by May 1998 it had reached Port Douglas and Mossman. The outbreak was brought under control 70 weeks after it started and resulted in 498 confirmed cases of dengue 3[24].

There has been an increase in the severity and persistence of dengue outbreaks in Queensland. In 2003 and 2004 there were six outbreaks of dengue fever in North Queensland. Four of these outbreaks were controlled quickly, with five or less cases each. The other two outbreaks were

24 Hanna JN, Ritchie SA, Phillips DA, Serafin Il, Hills SL, van den Hurk AF, Pyke AT, McBride WJH, Armadio MG and Spark RL (2001) *An Epidemic of Dengue 3 in Far North Queensland, 1997-1999*, Medical Journal of Australia 174:178-182

prolonged, resulting in 900 reported cases in total and extending from Townsville to the Torres Strait Islands.

In 2004, two people from the Torres Strait Islands spent more than two weeks in intensive care with very severe dengue haemorrhagic fever (DHF). A third person from the Torres Strait Islands died from DHF – the first recorded death from dengue in Queensland for approximately 100 years[25]. DHF occurs where a person with one type of dengue virus is infected with a different type of dengue. Treatment includes intravenous fluid rehydration, and blood transfusions for the loss of blood. The condition can result in residual brain damage, seizures and liver damage. As outbreaks in the Torres Strait continue, a higher number of residents become exposed to dengue which increases their risk of complications from secondary infection.

Over the next five years the Torres Strait Islands will be heavily targeted for dengue control activities. The Torres Strait has become an important risk area for dengue due to its proximity to PNG, which has significant mosquito breeding areas. The Torres Strait Island receives many visitors from PNG. In an outbreak that started in 1996, one person contracted dengue in Daru in PNG and returned to Mer in the Torres Strait. Because of the high *Aedes aegypti* population on Mer, this case led to a further 70 cases on the island. Subsequent travel of "viraemic" patients (when there is enough dengue virus in the person's blood to infect a mosquito) between islands led to infections on at least six other islands in the Torres Strait. Within seven months, 201 cases were confirmed, reaching locations as far south as Townsville[26].

It is important to note that notifications and incidences of mosquito vector diseases are not limited to North Queensland. Queensland's Notifiable Conditions Register 2004 reported 19 dengue notifications and 64 malaria notifications from people who normally reside in the Brisbane City Council local government area[27]. Of the 84 patients admitted to public or acute private hospitals for the 2004 financial year for mosquito related illnesses,

25 Queensland Health (2005) *Dengue Fever Management Plan for North Queensland 2005-2010*

26 Hanna JN, Richie SA, Merritt AD, van den Hurk AF, Phillips DA, Serafin, IL, Norton, RE, McBride WHJ, Gleeson FV and Pidinger M (1998) Two Contiguous Outbreaks of Dengue Type 2 in North Queensland, *Medical Journal of Australia* 168: 221-225.

27 Although the usual place of residence does not verify the source of the infection it is an important indicator to gauge the spread and intensity of an outbreak.

44 cases were hospitalised in South East Queensland including Royal Brisbane and Women's, Princess Alexandra, Redcliffe, Logan, Caloundra and Nambour[28]. Consequently, preventive measures are required to be taken throughout Queensland to inhibit the spread of mosquitos capable of being a vector of disease.

11.1.2 GOVERNMENT RESPONSE TO DENGUE FEVER

The Tropical Population Health Network (TPHN) of Queensland Health is constantly developing new and improved ways to manage dengue fever in Queensland. A comprehensive Dengue Fever Management Plan (DFMP) has been developed by Queensland Health to guide and coordinate efforts to manage dengue fever in North Queensland. The DFMP focuses on disease surveillance, mosquito control and surveillance and public education. Dengue control activities can differ according to the level of dengue activity:

- Ongoing prevention: where there is no current dengue activity in the zone, routine preventative action is taken by TPHN, local government and Indigenous community councils.
- Response to sporadic cases: where there is no current dengue activity in the zone, but an imported case of dengue or a possibly locally-acquired case is notified the likely source of infection is identified and details are obtained of the places the patient visited or resided in while they were viraemic.
- Outbreak response: where one or more locally acquired cases aimed at reducing the breeding of mosquitos is in place. Even a single confirmed case of locally-acquired dengue is enough to declare an outbreak.

A key strategy in the dengue response plans is to ensure occupiers and owners take responsibility for preventing the breeding of mosquitos in accumulations of water on their properties. Preventing mosquitos from breeding is the most effective measure in containing the spread and intensity of mosquito related outbreaks.

Through education campaigns and the establishment of legislative responsibilities under the proposed provisions of the regulation, mosquito

28 Queensland Health (2004) Queensland Hospital Admitted Patient Data Collection. Statistics according to principal diagnosis

breeding grounds will be reduced. This is an important and cost effective public health preventative strategy.

A "Dengue Blitz" media campaign was undertaken by Queensland Health in North Queensland during the multiple outbreaks in 2004. Despite the success of this campaign, Environmental Health Officers were still required to urge householders to adopt dengue-protective behaviour and explain the obligations under the existing *Health Regulation 1996* to obtain compliance.

Consequently, although public awareness campaigns are an important tool in communicating the steps that can be taken to prevent mosquito breeding activities, legislative support is required to ensure people can be compelled to take action. The proposed mosquito provisions, combined with efficient enforcement tools and a widespread public awareness campaign will provide the most effective means for controlling the breeding of mosquitos and reducing the associated health risks from mosquito-borne diseases.

A new dengue carrying mosquito, *Aedes albopictus*, was detected in the Torres Strait Islands in May 2005. This mosquito is renowned for its hardiness and ability to survive and breed in the peri-domestic environment. To respond to this incursion, officers from local and state government were deployed to spray affected islands to limit the spread of the mosquito. The Queensland Government has applied for $7 million in funding from the Federal government to undertake a 3 year eradication program targeting the *Aedes albopictus* mosquito.

In Queensland for the 2003/2004 financial year, the cost of treating patients admitted to public and private acute hospitals was $476,340[29]. The source of their condition and their average stay in Queensland hospitals was:

Condition	Episodes	Patient Days	Average Stay
Malaria	90	237	3
Dengue fever	59	174	3
Ross River disease	16	82	5

29 Queensland Health (2004) Queensland Hospital Admitted Patient Data Collection

Condition	Episodes	Patient Days	Average Stay
Other specified[a]	10	37	4
Japanese encephalitis	1	54	54
Total	176	584	3

a Other specified mosquito-borne viral fevers

Additional costs are incurred in treating outpatients and people who visit general practitioners. Post-hospitalisation treatment and rehabilitation costs are also incurred as well as the financial impact from loss of wages to employees and lost productivity for businesses.

It should be noted that these costs were incurred while the existing mosquito provisions of the *Health Regulation 1996* were used to respond to the risk of mosquito borne disease. These costs may be expected to rise if similar legislative provisions were not in place.

11.2 BENEFITS OF PROPOSED PROVISIONS ABOUT MOSQUITOS

The proposed regulation will assist governments to prevent outbreaks of mosquito borne disease and to respond to outbreaks where they occur. In doing so, the legislation will help minimise the costs of mosquito borne disease on individuals, families and the community generally, as identified above.

11.3 COST OF PROPOSED PROVISIONS ABOUT MOSQUITOS

11.3.1 REQUIREMENT TO ENSURE PLACE IS NOT A BREEDING GROUND FOR MOSQUITOS

The primary action that can be taken to prevent and control the breeding of mosquitos is to prevent accumulations of water from serving as a breeding ground for mosquitos. The proposed mosquito provisions (see Appendix One) have been based on the existing *Health Regulation 1996* provisions and incorporate cost effective measures that can be adopted to prevent the breeding of mosquitos. The proposed provisions of the regulation add an

additional measure to enable the public health risk associated with mosquitos to be prevented and controlled.

Under the proposed regulation, owners and occupiers will be required to ensure that an accumulation of water or another liquid at a place is not a breeding ground for mosquitos (see section 2N in Appendix One). *Aedes aegypti* primarily breeds in artificial containers holding water around the home such as cans, buckets, jars, pot plant dishes, boats, tyres and tarpaulins. It can also breed in bromeliads and fallen palm fronds. It will be a defence for an owner or occupier if they can demonstrate they have taken all reasonable steps to prevent the breeding of the mosquitos.

For the majority of householders, the costs of complying with these requirements will be minimal and can be addressed through simple actions taken by the householder, such as emptying pot plant saucers, keeping drains and gutters unblocked, stocking ponds with indigenous mosquito-larvae eating fish, or treating water with mosquito growth regulators or kerosene.

11.3.2 PROVISIONS FOR THE CONSTRUCTION, INSTALLATION AND MAINTENANCE OF RAINWATER TANKS

The proposed regulation will detail how rainwater tanks and other receptacles are to be mosquito-proofed to prevent mosquitos entering the tank or receptacle and breeding (see sections 2O and 2P in Appendix One).

In coming years it is expected that there will be a large increase in the number of rainwater tanks in domestic premises. After amendments are made to the *Standard Plumbing and Drainage Regulation 1993* and the *Standard Building Regulation 1993*, new Class 1 buildings will need to have a 3,000 litre rainwater tank. The mosquito control provisions of the regulation will ensure these rainwater tanks are fitted with appropriate mosquito proof covers. It will also assist householders to choose appropriate mosquito proof tanks and place requirements on installers of rainwater tanks.

Tanks that currently comply with the existing *Health Regulation 1996* will continue to comply under the proposed regulation. The existing *Health Regulation 1996* outlines a number of options to ensure that mosquitos cannot enter or exit a rainwater tank as well as other means approved by the chief executive. The proposed new provisions will replicate these provisions with the exception of the chief executive's ability to approve

alternative methods. As the chief executive has not approved any alternative methods, omitting this provision will not result in any disadvantage. Allowing the chief executive to approve an alternative method represents an unnecessary sub-delegation of legislative power. Consequently, this provision has not been replicated. If alternative measures become available due to improvements in technology or innovations in rainwater tank design, stakeholders can make a submission to Queensland Health with a view to possibly amending the regulation to take into consideration any new technologies or innovative methods.

The owner or occupier of a place where there is a tank must ensure that a tank is maintained so it continues to comply with the requirements that openings in rainwater tanks are covered with mosquito-proof screens or flap valves. For occupiers that are renting the property, this provision may involve notifying the lessor if there has been damage to the rainwater tank, so the lessor takes steps to fix the tank in accordance with their obligation to ensure the property complies with legislation about the health and safety of people who use or enter the premises[30].

The cost of upgrading a non-complying rainwater tank is dependant on the size of the tank and the number of openings. An estimation of the cost of these options for a rainwater tank with a 400mm diameter opening (the usual opening size in Queensland) is[31]:

Mesh covers with no light guard[32]	$ 16
Mesh covers with light guard	$ 27
Overflow mesh cover	$ 4
Flap valve	$ 36

The proposed regulation will continue the business opportunities that exist for rainwater tank manufacturers. Under the regulation, compliance with the proposed provisions will require tanks to be maintained with the appropriate flaps and valves. Business development opportunities exist for after market sales of flap valves and mesh coverings. The development of sustainable housing estates with mandatory rain water tank requirements will present business opportunities for manufacturers and installers.

30 As required under section 103 of the *Residential Tenancies Act 1994*

31 Estimates obtained from the average cost of aftermarket parts from rainwater tank manufacturers in Queensland.

32 Light guard covers the opening and prevents sunlight penetrating through to the water in the tank.

For businesses that currently manufacture and install their product in accordance with the *Health Regulation 1996*, their tanks will continue to comply with the *Public Health Regulation 2005*. The only change has been in relation to the existing mandated maximum manhole size. Under the *Health Regulation 1996*, if a tank was provided with a manhole, the maximum size of the opening was fixed at 40cm in diameter. This provision has been removed as it does not impact on the prevention of the breeding or harbourage of mosquitos.

The proposed regulation will not stop manufacturers from interstate jurisdictions (eg New South Wales) from producing tanks that do not have the appropriate flap vales or mesh coverings. However, if they sell a non-complying tank to Queensland, the Queensland installer (who may be a tradesperson or an owner of the property) will be required to install the tank with the relevant mosquito proofing devices.

11.3.3 OFFENCE TO DAMAGE SCREEN OR FLAP VALVE

Consistent with existing provisions, it will continue to be an offence to destroy, damage or remove a screen or other object that has been fixed to a relevant tank (see section 2Q of the attached legislative proposal). The provision enables a person to remove a screen or other object to carry out maintenance provided the screen or object is immediately replaced after the maintenance is completed. There is minimal cost in complying with this provision.

11.3.4 IMPACT ON LOCAL GOVERNMENT

Local government will be responsible for enforcing the proposed mosquito provisions of the regulation which are similar to the requirements and enforcement responsibilities under the existing *Health Regulation 1996*. Local governments will also be required as the owners or occupiers of land to take reasonable steps under the relevant provisions to ensure a place is not a breeding ground for mosquitos. No additional costs are expected for local government.

Local governments have a wide range of tools to take action under *Public Health Act 2005*. These include issuing a public health order as well as the ability to undertake prevention and control programs. Many local governments have a comprehensive animal and pest control program, including administration and enforcement of the current mosquito

provisions under the *Health Regulation 1996*, and it is unlikely that the proposed regulation will change these programs.

On-the-spot fines

Enforcement of the proposed regulation by local governments will be facilitated by the issuing of on-the-spot fines for offences recognised by the Department of Justice and Attorney-General as being appropriate. These include:

- requirement to ensure a place is not a breeding ground for mosquitos (see section 2N of the attached provisions);
- requirement to construct, install or maintain a tank in accordance with the requirements (see section 2O of the attached provisions); and
- destroying, damaging or removing a mosquito-proof screen or flap valve fixed to a relevant tank (see section 2Q of the attached provisions).

Approved inspection programs

The proposed provisions of the regulation will enhance the mechanisms available to local government under the *Public Health Act 2005*. Under Chapter 9 Part 4 (Approved inspection programs) of the Act, the chief executive officer of a local government has the power to approve an "approved inspection program" to monitor compliance with a regulation (such as the mosquito regulations). As required by section 428 of the *Public Health Act 2005*, the details of the program must be published at least 14 days before the program commences and state:

- the area that the approved inspection program will relate to;
- the purposes and scope of the program;
- when the program starts and ends; and
- who is to undertake the program.

Approved inspection programs will enable local governments to monitor the effectiveness of the regulatory provisions and take appropriate action to educate owners and occupiers of their responsibilities. However, the *Public Health Act 2005* does not require local governments to undertake an approved inspection program. The Act enables an approved inspection program to be undertaken if local governments choose to use them. It is the local government's decision to undertake the program and no additional costs will be involved if local governments do not undertake an approved inspection program

Authorised prevention and control programs

Under Chapter 2 Part 4 (Authorised prevention and control programs) of the *Public Health Act* 2005, the chief executive of Queensland Health may authorise an authorised prevention and control program if there is or is likely to be:

- an outbreak of a disease capable of transmission to humans by designated pests (mosquitos are designated pests); or
- a plague or infestation of designated pests.

The powers under the *Public Health Act 2005* make it clear that the chief executive of Queensland Health may only authorise local government officers to administer an authorised prevention and control program with the agreement of the chief executive of the local government.

These provisions enable an authorised person to exercise a range of powers including taking reasonable steps to eradicate or prevent the occurrence of the designated pests or taking a sample or thing at the place for analysis or testing (see section 43 of the Public Health Act). The authorised person may issue the person responsible for the public health risk a public health order if it relates to the same designated pest (mosquitos) to which the prevention and control program relates.

The powers in the *Public Health Act 2005*, combined with the proposed provisions in the regulation will enable local governments to choose the most appropriate mechanism to prevent and control the health risks associated with mosquitos.

11.2 CONCLUSION

The benefits of the proposed mosquito provisions outweigh the associated costs. There are substantial benefits in the reduction in mosquito borne diseases and associated costs. The costs to householders are comparatively minimal and there is not expected to be any increased cost burden on local government.

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12 COST-BENEFIT ANALYSIS FOR THE PREVENTION AND CONTROL OF RATS AND MICE

12.1 BACKGROUND

The proposed provisions of the regulation include a number of provisions designed to reduce vermin borne illness or disease in humans by preventing the harbourage and breeding of rats and mice (see sections 2R to 2X in Appendix One).

A balance is required in establishing these legislative provisions, as it is acknowledged that rats and mice are also kept as pets, for scientific research purposes and for commercial purposes associated with providing food for reptiles and birds of prey. It is not the intention of the legislation to prohibit these activities, provided they are conducted in accordance with relevant local laws and do not pose a public health risk.

12.1.1 HEALTH RISKS FROM VERMIN

Since millions of people died from plague in the Middle Ages, humans have associated vermin with illness and disease. Although bubonic plague is not considered a current public health threat, this has mainly been due to effective vermin control strategies. Effective vermin control strategies have included public awareness campaigns, government legislation and preventative action by local governments, home and business owners. There is currently no evidence that there has been a natural reduction in vermin numbers or associated disease outbreaks. By skilfully adapting to their surroundings, vermin will continue to provide a risk to human health and their control will continue to be necessary.

Vermin carry a number of diseases that can be transmitted to humans. In Australia, the primary vermin-borne disease of concern is leptospirosis. Leptospirosis can also be carried by other animals, wild and domestic, and

can be contracted via occupational exposure as well as recreational exposure. Leptospirosis can be contracted through exposure to water, moist soil or vegetation contaminated with *Leptospira spp*. and direct and indirect exposure to the urine of infected animals[33].

Vermin and their parasites are also reservoirs for diseases such as plague, murine typhus and hantaviral diseases. According to the Centre for Disease Control in the United States (2006), plague was reported in North America, South America, Africa and Asia, but not reported in Australia, between 1970 and 1998 (CDC, 2006). Murine typhus and hantaviral diseases occur in other countries (Benenson, 1995), however, as both are not notifiable conditions in Queensland and, from current knowledge, do not occur in Australia, no data is available on their incidence. Due to the risks of importing these diseases (from imported products and international shipping), adequate measures are still required to control the risk of vermin-borne diseases.

Due to their living environment and habits, vermin can also be carriers of micro-organisms found in rubbish, food scraps, sewers and the environment, (such as E. coli, Salmonella and Campylobacter) which can contaminate areas they occupy and travel through.

12.1.2 LEPTOSPIROSIS IN QUEENSLAND

From 2000 to 2005, there were 614 cases of leptospirosis notified in Queensland[34]. These cases include occupational, recreational and other exposures. The exact disease vector (ie. wild animal, domestic animal, vermin) was not established.

In 2002, there were 71 notified cases of leptospirosis in North Queensland[35]. Of the 61 cases interviewed during this year, almost half (30) acquired leptospirosis through their occupation, such as banana farmer,

33 Benenson, A S (ed) (1995) *Control of communicable diseases in man*, 16th ed. American Public Health Association: Washington DC.

34 Queensland Health (2006) Number of notified cases of leptospirosis in Queensland 2000-2005.

35 Queensland Health (2003) *Leptospirosis annual report 2002*. Queensland Health: Brisbane

dairy farmer and grazier[36].The other cases acquired leptospirosis through recreational activities or both occupational and recreational activities[37]. A specific category for domestic or residential exposure was not established.

The costs of leptospirosis to Queensland are high. In 2002, the University of Queensland's School of Natural and Rural Systems Management completed a study into the economic costs of leptospirosis to Queensland Health and the banana industry[38]. The study focused on the costs during the 1999 outbreak in the health service districts of Cairns, Innisfail and the Tablelands. During 1999, there were 160 cases reported in this area of Queensland, most of which were occupational exposures. By comparison there were 66 cases notified in 1998 and 96 notified cases in 2000.

The total cost to Queensland Health during this outbreak was $368 630. Details are as follows:

Category	Cost ($)
Education and prevention	18 145
Diagnosis	23 295
Hospitalisation	322 866
Surveillance	4 324
TOTAL	**$368 630**

The cost of individual hospitalisations ranged from $670 to $43 899. Costs escalated markedly for intensive care treatment. Of the 86 individuals hospitalised, five were admitted to an intensive care unit, with costs for these episodes totalling $128 074 and ranging from $15 195 to $43 899 for a single admission. These figures are provided to give an indication of the costs associated with leptospirosis treatment and control.

The loss of productivity costs to the banana industry in north Queensland were estimated at $51 675. In addition, $11 732 in statutory payments were

36 Queensland Health (2003) *Leptospirosis annual report 2002*. Queensland Health: Brisbane

37 Queensland Health (2003) *Leptospirosis annual report 2002*. Queensland Health: Brisbane

38 Cook E, Horrobin D, Telford J, Topp R, and Russell I (ed) (2002) *Leptospirosis and Queensland's Banana Industry: an Economic Analysis*, School of Natural and Rural Systems Management, University of Queensland

made by WorkCover Queensland to fruit workers for leptospirosis during the outbreak[39].

12.1.3 PROPOSED LEGISLATIVE RESPONSE TO VERMIN RELATED HEALTH RISKS

The proposed regulation will replace the current provisions in the *Health Regulation 1996* relating to vermin control, which have been in force for approximately 15 years. There is a clear public expectation that governments are providing, and will continue to provide, strategies to control vermin populations in emergent public health situations, such as increasing vermin populations or a disease outbreak. The proposed provisions of the regulation, combined with the procedures in the *Public Health Act 2005* will provide a comprehensive legislative response to the health risks associated with rats and mice.

Removal of outdated provisions

Outdated provisions within the *Health Regulation 1996* have been removed from the legislative proposal, including the requirement that:

- a person notify local government if vermin are found at their house; and
- local government notify Queensland Health about unusual mortality or sickness in vermin.

This will relieve the community and local government from certain legislative burdens that are no longer appropriate for monitoring and controlling vermin.

It is also proposed that the existing vermin permit provisions under the *Health Regulation 1996* will not be replaced. The current provisions require a permit to be obtained from a local government if more than 100 rats, mice or guinea pigs are being kept by an owner.

Only two vermin permits have been issued by Councils in Queensland. Local governments have expressed their preference for abolishing the existing vermin permit provisions. There is little or no agreement about the appropriate limit on the number of vermin that can be kept without a permit. The selection of 100 as the appropriate figure in the existing *Health*

39 Queensland Health (2003) *Leptospirosis annual report 2002*. Queensland Health: Brisbane

Regulation 1996 appears to have been arbitrary and not supported by an evidence based approach. Local governments have reported difficulties in establishing effective vermin responses due to the large numbers that could be kept without a permit. Removing the vermin permit provisions leaves local government with the freedom to prescribe their own limit. Local governments have indicated a preference to set their own limitation on the numbers based on environmental factors of the local area. The ability to establish local laws will be responsive to the requirements of the local area and can take local community concerns into account.

The proposed regulation will still enable people to keep rats or mice as:

- pets;
- at a laboratory for medical, research, scientific or teaching purposes;
- for the purpose of selling them or using them as a food source for other animals; or
- provided they are kept in enclosures so they can not escape.

If local laws are introduced for the establishment of a vermin permit system, people will be required to keep their rats or mice in accordance with these local laws.

The environmental health provisions of the *Public Health Act 2005* will continue to apply to people who keep rats or mice as allowed under the regulation. This means that if a person is keeping rats or mice in such a way as to cause a public health risk (for example due to a failure to clean the enclosure) a public health order could be issued under section 23 of the *Public Health Act 2005* requiring the person responsible for the public health risk to clean the enclosure.

Requirements for owner of a relevant structure

The broad obligation that an owner of a place is required to take reasonable steps to stop vermin entering a building or other relevant structure (see section 2S and 2U) is consistent with the existing requirements in the *Health Regulation 1996*. Through years of providing pest control services and administering and enforcing vermin control legislation, local governments are aware of the "reasonable steps" that can be taken by a home owner or occupier to ensure vermin do not live or breed on land around a dwelling. Queensland Health will assist in the interpretation of "reasonable steps" through relevant information and guidance material.

Offence to damage screens on relevant structure

Consistent with existing provisions, it will continue to be an offence to destroy, damage or remove a screen or other object that has been fixed to a building or other relevant structure for the purposes of vermin control. The provision enables a person to remove a screen or other object to carry out maintenance provided the screen or object is immediately replaced after the maintenance is completed.

Requirement to ensure vermin do not live or breed on land around dwelling

It is necessary to prevent the harbourage and breeding of rats or mice on the land around a dwelling. Consequently, the proposed regulation prohibits the harbourage and breeding of rats in land that surrounds a house.

In rural settings, it is acknowledged that preventing rats and mice from breeding on the entire rural block is very difficult. Consequently, this provision has been limited to land around the dwelling, where the most interaction with humans and the greatest risk to human health exists. Queensland Health will provide guidelines as to the interpretation of these provisions and the reasonable steps that can be taken to ensure vermin do not live or breed on this land.

As discussed above, the environmental health provisions of the *Public Health Act 2005* will continue to apply. If vermin are living or breeding on land that in such a way as to cause a public health risk, a public health order could be issued under section 23 of the Act. This order could require the person responsible for the public health risk to take appropriate steps to stop the public health risk.

12.2 BENEFITS OF PROPOSED PROVISIONS ABOUT VERMIN

The proposed regulation will assist governments to minimise the risk of outbreaks of vermin related illness and disease and to respond to outbreaks where they occur. In doing so, the proposed regulation will help minimise the costs of vermin borne illness or disease on individuals, families and the community generally.

12.3 COSTS OF PROPOSED PROVISIONS ABOUT VERMIN

12.3.1 IMPACT ON THE COMMUNITY

Compared with no regulation, the proposed general obligation that will require an owner of a relevant structure to stop vermin entering the structure may impose an appreciable cost on an owner. However, this obligation does not impose additional requirements from the existing *Health Regulation 1996*. The steps to be taken by an owner will be relatively simple. As outlined in the proposed provisions (see Appendix One) these steps may include sealing or covering any holes or gaps in the exterior surface of the structure, such as filling the hole with mortar or chicken wire. The costs associated with these measures will be relatively small and are measures that the owner can take themselves.

The exemption applying to vermin kept under proposed section 2X (see Appendix One) is to ensure that rats and mice kept for the purposes outlined in section 2X(1) do not inadvertently result in a breach of the general offence provision in section 2U and section 2W. This exemption is necessary to enable pets and other specified rats and mice to enter a relevant structure or to be kept on land around the dwelling without breaching section 2U and section 2W. For example, a family with pet mice would not be breaching the provisions of 2U and 2W if they have their pet mice in the house or in land around their home, provided they are kept in an enclosure from which they can not escape and are kept in accordance with any local law permit requirements. The family would still be required to stop other rats and mice from entering the home or harbouring or breeding on the land around the home.

The removal of the vermin permit provisions means that the regulatory burden will be reduced compared with the existing requirements. It will then be the choice of each local government to impose a suitable limit if they chose to introduce vermin permit provisions. This may result in a cost to people wanting to keep rats or mice for the purposes listed under section 2X.

12.3.2 IMPACT ON LOCAL GOVERNMENT

It is anticipated that the costs to local government as a result of the vermin provisions will be negligible. Many local governments have a comprehensive animal and pest control program, including administration and enforcement of the current vermin provisions of *Health Regulation*

1996. It is unlikely that the proposed regulation will change these programs.

Local governments have expressed support for the removal of the vermin permit provisions in the existing *Health Regulation 1996*. The proposed regulation does not limit the ability of a local government to establish their own vermin permit system under a local law. This will allow local governments to introduce a vermin permit system if it is desirable and appropriate for their local area. Queensland Health will assist local governments in the development of appropriate model local laws.

12.4 CONCLUSION

The benefits of the proposed vermin provisions outweigh the costs. As the proposed provisions will help keep the population of vermin at a limited level, minimising the risk of serious vermin related illness or disease (such as bubonic plague). The costs involved in taking preventive steps to stop the harbourage or breeding of vermin are minimal and there is not expected to be any increased cost burden on local government.

References

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13 COST BENEFIT ANALYSIS FOR CONTAGIOUS CONDITIONS

13.1 BACKGROUND

13.1.1 ATTENDANCE AT SCHOOL AND CHILDCARE

According to the Australian Bureau of Statistics' (ABS) 2002 Child Care Survey, about half the children in Australia aged less than 12 years use some type of child care[40]. Informal care (non-regulated care arranged by a child's parent in the child's home or elsewhere) was used by 33% of children and formal care (regulated care that takes place away from the child's home) was used by 25%. The proportion of children using formal care has gradually increased from 19% in 1993 to 25% in 2002. The most commonly used types of formal care were long day care (10%) and preschool (8%). It was found that the use of child care, particularly formal care, varies with age. The use of formal care by very young children was low (7% of children under one year) but increased rapidly from age one (275) up to age four (83%). The higher use of formal care by three and four year olds reflects preschool attendance. As children commence school, the use of child care declines significantly, with only 9% of children aged five to eleven years using outside school care.

The findings of the ABS's 2002 Child Care Survey regarding the age distribution of children using formal care were also found to be applicable in the Queensland Child Care Census 2003[41]. The majority of children (90.1%) attending licensed child care services, in Queensland during the 2003 census week, were less than 5 years. 3% of these children were less than 1 year, 9.7% were 1 year, 16.9% were 2 years, 23.4% were 3 years, 25.3% were 4 years, 11.85 were 5 years and 9.9% were 6 years and older.

40 Australian Bureaus of Statistics 2005 *Child Care, Australia* 4402.0

41 Department of Communities *Licensed child care services in Queensland*, *Child care Census 2003* available at <www.communities.qld.gov.au>

Currently, attendance at school is compulsory in Queensland between the ages of 6 and 15 years, although a large percentage of children start school at five years of age[42]. In August 2004, 638,995 full-time students attended 1,733 schools in Queensland. 448,574 (70.2%) students attended 1,284 government schools and 190,421 (29.8%) students attended 499 non-government schools. Of the 1,733 schools in Queensland at this time, 70% were primary schools, 15.3% were secondary schools, 11.8% were combined primary-secondary schools and 2.9% were special schools[43].

13.1.2 THE OPERATION OF THE PUBLIC HEALTH ACT 2005 AND THE PROPOSED REGULATION

Part 2 of Chapter 5 of the *Public Health Act 2*005 provides mechanisms to prevent the spread of contagious conditions amongst children at schools or child care services[44]. These mechanisms, which are an important step in maintaining and improving the health of Queensland children, include:

- clarifying in legislation that a parent must not send their child to any school or child care service if the parent knows their child has a contagious condition;

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42 The following Queensland Government initiatives will alter the compulsory age of attendance at school:

- from 2006, the *Youth Participation in Education and Training Act 2003* will make it compulsory for young people to remain at school until they finish Year 10 or turn 16, whichever comes first. Once a young person completes Year 10 or has turned 16 they will be required to participate in education and training for a further two years, or Until they have gained a Senior Certificate, or Until they have gained a Certificate III vocational qualification, or Until they have turned 17.
- from 2008, the compulsory school starting age for Year 1 will be raised to six. Children will need to be six by 30 June the year they enrol in Year 1.

In addition, from 2007, all Queensland children of appropriate age will have access to a non-compulsory, full-time preparatory year of education. Children will need to be five by 30 June in the year they enrol in Prep.

43 Office of Economic and Statistical Research *Information Brief, Schools Australia: 2004 (ABS 4221.0*) released 24 February 2005, Queensland Government.

44 *School* is defined in the *Public Health Act 2005* to mean "a State school, State preschool centre or non-State school within the meaning of the *Education (General Provisions) Act 1989*. *Child care service* is defined in the *Public Health Act 2005* to mean, "a centre based service or a home based service licensed under the *Child Care Act 2002*".

- setting out the circumstances under which directions may be issued by a school principal or director of a child care service[45] to a parent about the attendance of their child at school or a child care service, if the child is suspected of having a contagious condition or is considered to be at risk of contracting a contagious condition because they have not been vaccinated for the condition;
- enabling the chief executive of Queensland Health to issue directions to a school or child care service to minimise the risk of the children attending the school or service of contracting a contagious condition if there is an outbreak of the contagious condition at the school or service; and
- enabling the Minister to order the temporary closure of a school or child care service, for a period of not more than 1 month, to minimise an outbreak of a contagious condition.

These mechanisms formalise existing arrangements already operating in schools and child care services. It is generally accepted that, in some circumstances, the only way to stop the spread of a contagious condition from one child to another is to prevent the affected child from having contact with other children.

13.1.3 PUBLICATIONS INFORMING THE PROPOSED PROVISIONS

Chapter 5 of the *Public Health Act 2005* and the proposed regulation have been developed in light of the following publications[46] that are currently used by the education, child care and health sectors to manage outbreaks of contagious conditions among children:

- Recommended minimum periods of exclusion from school, pre-school and child care centres for cases of and contact with infectious diseases published by the National Health and Medical Research Council (NHMRC)

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45 Collectively referred to as 'the person in charge of a school or child care service' in Part 2, Chapter 5 of the *Public Health Act 2005*.

46 It should be noted that this legislative proposal has been developed taking into account the recommendations in the current edition of each of the publications listed above. However, these documents are periodically modified in light of new information, best practice guidelines and new vaccines being registered for use in Australia.

- Queensland Health Time Out Posters
- *Staying Healthy in Child Care, Preventing infectious diseases in child care (3rd Edition)*, Commonwealth of Australia
- *Control of Communicable Diseases Protocol Manual (3rd Edition*), Queensland Health
- Department of Education Manual, *Health and Safety, HS-18: Infection Control*
- *The Australian Immunisation Handbook (8th Edition)* published by the National Health and Medical Research Council.
- *National Immunisation Program Schedule published by the Department of Health and Ageing (Cwlth)* in November 2005[47].

13.1.4 HEALTH IMPACTS OF CONTAGIOUS CHILDHOOD CONDITIONS

Infections are common in children and can lead to serious illness. When children attend child care or school they are exposed to a large number of other children, which may provide the opportunity for the transmission of contagious conditions. It is not possible to prevent the spread of all contagious conditions, however many contagious conditions can be prevented either by vaccination or breaking the cycle of transmission by removing the infected child from child care or school.

In Queensland, between 2001 and 2005, 3,420 children (aged 0-18 years) were notified as having had haemophilus influenzae type b infection (invasive), hepatitis A, measles, meningococcal infection, pertussis (whooping cough) and rubella.

The incidence of these contagious conditions among Queensland children for the period 2001-2003 is outlined in the following table.

Contagious condition	Incidence per 100,000
Haemophilus influenzae type b infection (invasive)	0.24
Hepatitis A	1.35
Measles	0.40
Meningococcal infection	5.55

47 Available at: <http://immunise.health.gov.au>.

Contagious condition	Incidence per 100,000
Pertussis (whooping cough)	59.53
Rubella	0.94

It is proposed that these conditions, plus an additional 8 conditions, be prescribed as contagious conditions under the *Public Health Regulation 2005*. Although outbreaks of these additional conditions have been limited, the seriousness of the health risks they pose, require that adequate measures are needed to reduce transmission should an outbreak occur.

13.1.5 PRESCRIPTION OF CONTAGIOUS CONDITIONS AND VACCINE PREVENTABLE CONDITIONS

Contagious Conditions

As stated above, the *Public Health Act 2005* sets out the circumstances under which a school principal or director of a child care service may direct a parent to remove their child from school or a child care service. The child should not attend school or a child care service, if the child is suspected of having a contagious condition[48].

As detailed in Appendix One, it is proposed that the regulation prescribe the following medical conditions to be contagious conditions:

- Diphtheria
- Enterovirus 71 Neurological Disease
- Gastroenteritis illness
- Haemophilus influenzae type b infection (invasive)
- Hepatitis A infection
- Measles
- Meningococcal infection (invasive)
- Paratyphoid
- Pertussis (whooping cough)
- Poliomyelitis –wild type and vaccine associated
- Rubella

48 See sections 164 and 168 of the *Public Health Act 2005*.

- Tuberculosis
- Typhoid
- Varicella –zoster virus infection (chicken pox)

Vaccine Preventable Conditions

Unvaccinated or incompletely vaccinated children may be at risk of catching or continuing to transmit infection within a school or child care environment. Most vaccines need to be repeated a number of times to enable the immune system to build long lasting protection. For example, if a child has only had one or two doses of the recommended three dose course of a pertussis vaccine, then the child will only be partially protected and may be at risk of catching pertussis if exposed to the bacteria. Immunisation has been repeatedly demonstrated in both research trials and in the field to be one of the most effective medical interventions we have to prevent disease. It has been estimated that immunisations currently save 3 million lives per year throughout the world, while remaining one of the most cost effective health interventions[49].

Children in Queensland are protected against a number of contagious conditions through routine childhood immunisations as recommended by the NHMRC and the National Immunisation Program Schedule[50]. Although the incidence of vaccine-preventable conditions has been reduced since the introduction of immunisations, these conditions remain a serious concern. The NHMRC has recommended that vaccine coverage needs to exceed 90% for children at two years of age and almost reach 100% for children at school-entry age, to achieve and maintain the level of community immunity necessary to interrupt the ongoing transmission of vaccine-preventable diseases[51]. Furthermore, the NHMRC advises that children attending school or childcare who have not been immunised for certain conditions may be at risk of infection during an outbreak of that condition and, as a consequence, should not attend school or childcare for the duration of the outbreak[52].

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49 Commonwealth of Australia (2000) Myths & Responding to arguments against immunisation, *A Guide for Providers 3rd Edition*

50 Refer to The Australian Immunisation Handbook 8th Edition 2003 and the National Immunisation Program Schedule published by the Department of Health and Ageing (Cwlth) available at http://immunise.health.gov.au

51 Australian Institute of Health and Welfare(2005) *A Picture of Australia's Children*

52 *Staying Healthy in Child Care, Preventing infectious diseases in child care* (3rd Edition), Commonwealth of Australia

Accordingly, the *Public Health Act 2005* sets out the circumstances under which a parent may be asked to remove their child from school or a child care service[53]. This may occur if the child has not been vaccinated for a contagious condition that is prescribed under the regulation as a vaccine preventable condition and the non-vaccinated child may be at risk of contracting the condition because another child attending the school or service has the condition.

In accordance with the advice of the NHMRC[54], it is proposed that the regulation will prescribe measles and pertussis to be vaccine preventable conditions. Queensland experienced measles outbreaks in 2002 and 2003 and there are regular outbreaks of pertussis (whooping cough). During 2005, there were 23 different outbreaks of pertussis (whooping cough) identified in Queensland.

It is not appropriate for all known vaccine preventable conditions to be prescribed as "vaccine preventable conditions" as exclusion from other children is not recognised as a viable means of breaking the cycle of transmission in all conditions. For example, there is a vaccine for diphtheria; however precluding unvaccinated children from a child suspected of having diphtheria is not an appropriate containment measure in the event of a diphtheria outbreak. Consequently, for the purposes of the proposed provisions, diphtheria will not be prescribed as a "vaccine preventable condition" as preclusion is not appropriate to protect other unvaccinated children even though a vaccine is available for diphtheria.

The proposed regulation will also set out the vaccination requirements for measles and pertussis[55]. The regulation will specify that a child has been vaccinated for measles and pertussis if the child has received all the required vaccinations for their age as recommended by the National Immunisation Program Schedule[56] (see Table 5).

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53 See sections 166 and 168 of the *Public Health Act 2005*.

54 Recommended minimum periods of exclusion from school, pre-school and child care centres for cases of and contact with infectious diseases published by the National Health and Medical Research Council

55 Section 158 of the *Public Health Act 2005* defines 'vaccinated', in relation to a vaccine preventable condition, to mean vaccinated in the way prescribed under a regulation.

56 Refer to The Australian Immunisation Handbook 8th Edition 2003 and the National Immunisation vProgram Schedule published by the Department of Health and Ageing (Cwlth) available at available at http://immunise.health.gov.au.

The proposed regulation does not force children to become vaccinated, however an "at risk" child who has had contact with a child diagnosed with a vaccine preventable condition during the infectious period may be precluded from school. In the case of measles, they will be precluded until the outbreak is declared over by the chief executive of Queensland Health. In the case of pertussis, an "at risk" child will only be precluded if they live in the same house as a child diagnosed with pertussis. The "at risk" child can return to school after they have received an appropriate course of antibiotics or 14 days after they had the contact with the diagnosed child.

TABLE 5: VACCINATION REQUIREMENTS FOR MEASLES AND PERTUSSIS

Age	Disease immunised against
2 months	Diphtheria, tetanus and pertussis (DTPa)
4 months	Diphtheria, tetanus and pertussis (DTPa)
6 months	Diphtheria, tetanus and pertussis (DTPa)
12 months	Measles, mumps and rubella (MMR)
4 years	Measles, mumps and rubella (MMR) Diphtheria, tetanus and pertussis (DTPa)
15 years	Diphtheria, tetanus and pertussis (dTpa)

13.1.6 PRESCRIBED PERIODS FOR CONTAGIOUS CONDITIONS AND VACCINE PREVENTABLE CONDITIONS

If a person in charge of a school or child care service reasonably suspects that a child may have a contagious condition and that other children attending the school or service may be at risk of contracting the contagious condition the person in charge may advise at least one of the child's parents of their suspicion. The parent's have an obligation under section 161(1)(a) and (2) not to send the child to the school or child care service.

If the child continues to attend the school or service, the person in charge may direct the parent to remove the child from the school or child care service as soon as reasonably practicable and not to send the child to the school or service during the prescribed period for the condition applying to the child (see section 164 and section 166 of the *Public Health Act 2005*).

The person in charge of a school or child care service must advise the parent:

- why the direction has been issued (the suspected contagious condition that led to the direction)
- the prescribed period during which the child must not attend the school or service; and
- the circumstances under which a child may be readmitted to the school or child care service.

Section 160 of the *Public Health Act 2005* provides for a regulation to be made about the period during which a child must not attend school or a child care service, if the child's parents have been directed by the person in charge to remove their child from the school or service. The proposed periods are based on the minimum periods recommended by the Department of Health and Ageing (Cwlth) and the NHMRC.

In general, the periods to be prescribed under the regulation relate to the period of time during which a child may be infectious or at risk of infection in the case of a child who has not been vaccinated for a vaccine preventable condition. For example, the prescribed period for a child suspected of having measles or rubella is until at least four days after the appearance or onset of the rash. For a child that has not been age appropriately vaccinated for measles, the prescribed period is when the outbreak of measles at the school or child care service is declared over by the chief executive (this power will be delegated to Public Health Medical Officers).

However, for some contagious conditions the absence of symptoms is not a viable indication that the person is no longer infectious. For conditions such as Enterovirus 71, diphtheria and typhoid/paratyphoid it is necessary to obtain pathological confirmation (ie a negative pathology result) that a child is no longer infectious. This can be confirmed by the treating doctor. As detailed in Appendix One, the prescribed period will set out the minimum period during which a child suspected of having the condition must not attend school or child care.

Queensland Health will produce reader-friendly reference charts and information for schools and child care services about these symptoms and the recommended periods that children are to be kept away from school. The Queensland Health network of Population Health Units will be involved in providing advice and assessing the risks of an outbreak and appropriate containment and prevention strategies.

Under the *Public Health Act 2005* a doctor, or another person authorised by the chief executive of Queensland Health must be consulted before a parent is directed to remove their child or not to send their child to school or a child care service. There is no expectation that teachers, principals, carers or the directors of child care services will diagnose the child. Rather they have the ability to advise a parent that they suspect a child may have a contagious condition. If the parent does not co-operate and after consultation with a doctor or other delegated person, the principle or director of a child care serve may direct a parent to remove their child and not send the child to the school or service during the prescribed period for the condition applying to the child. The Population Health Unit, relevant doctor or other delegated person will advise on the appropriate prescribed periods.

As it is intended that measles and pertussis (whooping cough) be prescribed as contagious conditions and vaccine preventable conditions separate prescribed periods are required. The periods to be prescribed for these conditions are detailed in Appendix One and include:

- the prescribed period during which a child suspected of having the condition must not attend school or child care; and
- the prescribed period during which a non-vaccinated child, who has had contact with a child suspected of having the condition, must not attend school or child care.

13.2 BENEFITS OF PROPOSED PROVISIONS ABOUT CONTAGIOUS CONDITIONS

The mechanisms provided under Part 2 of Chapter 5 of the *Public Health Act 2*005, given effect to by the proposed regulation, will benefit the community by helping to reduce the incidence of contagious conditions prevalent amongst children.

This will have the associated benefits of also reducing the:

- risks associated with children contracting a childhood contagious conditions (such as secondary infections contracted while their immune system is compromised);
- severity and frequency of outbreaks of childhood contagious conditions;
- medical treatment costs for the infected child;

- alternative care costs that working parents would incur if their child had a contagious condition;
- loss of income for parents who need to take time off work to look after their sick child; and
- anxiety levels for parents and carers when their child is unwell.

13.3 COSTS OF PROPOSED PROVISIONS ABOUT CONTAGIOUS CONDITIONS

13.3.1 IMPACT ON INDIVIDUALS AND FAMILIES

While the broader community will benefit from the proposed regulation, it is recognised that it may be seen to disadvantage those parents who are asked to remove their child from school or child care because they are suspected of having a contagious condition or at risk of contracting a contagious condition because they have not been age appropriately vaccinated for the condition. It is difficult to quantify the impact of these legislative requirements, as it will vary according to the circumstance of each child and their family. The costs borne by the child's family may be minimal if, for example, the child's parent does not work and is able to look after them; the child's parent can access alternate care arrangements (eg informal care provided by a grandparent, sibling or other relative); or the child's parent can access family-friendly working arrangements (such as family sick leave or flexible working hours). However, the costs borne by some families with children attending a child care service may be more substantial.

As of 30 June 2004 in Queensland, in 56.5% of couple families with children less than 15 years both parents were employed and in 47.5% of single parent families with children less than 15 years, the parent was employed[57]. The ABS 2002 Child Care Survey found that the main reason children attend some form of child care is parental work (ie attendance at work, looking for work or attending work related training or study). Within couple families, 59% of children used care if both parents were employed compared to 35% of children with one parent employed and 28% of children where neither was employed.

57 Australian Bureau of Statistics (2005) *Australian Social Trends. Family and community, National and state family and community summary tables*

Similarly, within single parent families, 74% of children attend care because of their parent's work commitments compared with 44% of children whose lone parent was not employed. Overall, single parent families make more use of child care than couple families (54% compared to 42%). Consequently, if a parent is directed to remove their child from school or child care, some families may experience a loss of income, be required to forfeit child care services paid in advance (in 2002, the median weekly cost of formal care, other than preschool, ranged from $9 for care fore less than five hours to $105 for care of 45 hours or more a week) or have to pay for alternate care arrangements (eg informal care by a babysitter).

The costs of keeping a child at home need to be balanced with the potential costs to the community if outbreaks of contagious conditions continue to occur. If the infectious child is not removed, the continuation of the transmission of the contagious condition to other children in the school or child care service and the associated medical costs, time away from work and carers' costs are considerable. To contain the outbreak, preclusion of the child from school or child care is the most effective and cost efficient means.

In recognition of the potential adverse impacts on families, the prescribed period during which a child must not attend school or a child care service, are based on the minimum periods of exclusion from school, pre-school and child care centres recommended by the NHMRC and Commonwealth Department of Health and Ageing. It is understood that these recommendations are currently enforced administratively in most child care services and schools[58].

13.3.2 IMPACT ON SCHOOLS AND CHILDCARE SERVICES

Costs associated with the administration of Part 2 of Chapter 5 of the *Public Health Act 2005* and the associated regulation will be shared by the government and non-government sector. As discussed above, the *Public Health Act 2005* requires certain actions to be taken by:

58 The Queensland Department of Education Manual on Health and Safety (HS_18: Infection Control) addresses matters concerning the transmissions of infection, illness and disease, including the NHMRC's Recommended minimum periods of exclusion from, school, pre-school and child care centres for cases of and contact with infectious diseases.

- schools – the majority of which are government schools[59]; and
- child care services – the majority of which are privately owned or community managed services[60]

However, it is envisaged that the cost imposed on schools or child care services will not be appreciable for the following reasons:

- the mechanisms under the legislation, would only need to be utilised if a parent does not voluntarily remove their child, who is suspected of having a contagious condition or being at risk of contracting a vaccine preventable condition;
- the mechanisms under the legislation formalise existing arrangements already operating in schools and child care services;
- Queensland has been continuously improving vaccination coverage for all vaccines listed on the National Immunisation Program Schedule (including diphtheria, tetanus, pertussis, inactivated poliomyelitis, measles, mumps, rubella, Hemophilus influenzae type b, hepatitis B, meningococcal C, pneumococcal disease and varicella). As of 30 June 2004, 91% of one year olds, 92% of two year olds and 80% of six year olds in Queensland were fully immunised according to the Australian Standard Vaccination Schedule[61]. Consequently, the prevalence of these contagious conditions is limited to outbreaks and is usually quickly contained.

13.3.3 IMPACT ON THE STATE GOVERNMENT

Queensland Health will continue to meet the costs associated with this department's overall responsibility for the legislation, including:

- monitoring the incidence of contagious conditions among children in Queensland;

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59 According to the Office of Economic and Statistical Research, Information Brief, Schools Australia: 2004 (ABS 4221.0) of the 1,733 schools in Queensland in 2004, 74.1% were government schools and 25.9% were non-government schools.

60 According to the Queensland Child Care Consensus 2003, of the 1,258 licensed child care services that responded, 48.3% were privately owned, 47.6% were community managed services and 4% were government managed services.

61 Australian Childhood Immunisation Register Statistics at www.medicareaustralia.gov.au. The Australian Standard Vaccination Schedule was updated by the *National Immunisation Program Schedule* in November 2005.

- monitoring immunisation rates for Queensland children;
- participating in immunisation campaigns, such as: the 2001 pneumococcal vaccination program for Indigenous children; the 2003 to 2004 meningococcal C vaccination program; and the 2005 catch up program for all children under 2 years of age for the pneumococcal vaccination;
- providing advice and assistance to schools and child care services so that they can fulfil their statutory responsibilities;
- providing advice and assistance to the chief executive of Queensland Health to determine if it is necessary to utilise the mechanisms provided under the legislation to prevent the spread of contagious conditions amongst children at schools or child care services;
- developing a comprehensive communications strategy, in consultation with key stakeholders, to support community awareness of the mechanisms provided under the *Public Health Act 2005* to prevent the spread of contagious conditions in schools and child care services. The communication strategy will consist of information packs, guidelines, templates for the notice requirements and appropriate procedures to support the effective implementation of these provisions.

13.4 CONCLUSION

The benefits of the proposed regulation outweigh the costs. The proposed regulation will assist in reducing the incidence of childhood contagious conditions and having effective measures for containing outbreaks that do occur. This will minimise the costs of contagious conditions on children, families and the community. The costs of the provisions are comparatively minimal.

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14 NOTIFIABLE CONDITIONS IN THE PUBLIC HEALTH REGULATION 2005

14.1 BACKGROUND

14.1.1 THE ROLE OF PUBLIC HEALTH LEGISLATION

Over the past century, the average life expectancy of Australians has increased from 55 years to 77 years for males and 59 to 83 years for females. The increase in life expectancy is due to declining death rates at all ages. The reduction in mortality in the early part of the 20th century has been attributed to improvements in living conditions, such as better water supply, sewerage systems, food quality and health education. The continuing reduction in mortality in the latter half of last century has been attributed to improving social conditions, and to advances in medical technology such as mass immunisation and antibiotics[62].

Historically, public health legislation has played an important role in the identification, monitoring and management of medical conditions that are highly contagious, life threatening or an indicator of an environmental

62 Year Book Australia, Population, Deaths, Australian Bureau of Statistics, updated 18 April 2005

health risk. When Queensland's public health legislation was first drafted it was envisaged that outbreaks of disease would be localised and generally contained within a particular region. However, with today's mobile population and distribution of goods (such as food) across national and international boundaries, certain diseases continue to be an ever-present threat to the public health. Notifiable conditions remain one of the leading causes of death worldwide and contribute significantly to the escalating costs of health care[63]. In Queensland, of the 132,508 deaths registered in 2004, 1,802 (1.4%) were attributed to infectious and parasitic diseases and 3,362 (2.5%) were attributed to influenza and pneumonia[64].

The identification and monitoring of notifiable conditions continues to be the corner stone upon which public health authorities can take action to reduce the incidence and severity of notifiable conditions. As indicated in Table 6, the incidence of some notifiable conditions in Queensland, in recent time, has been negligible (eg botulism, cholera, diphtheria, cholera, tetanus, viral haemorrhagic fever and yellow fever). Whereas, the incidence of other notifiable conditions are more prevalent (eg campylobacteriosis, pertussis, Ross River Virus Infection and salmonellosis). While some of these conditions may result in death, advances in the detection and treatment of these conditions have helped to reduce the number of deaths from these conditions[65]. However, individuals and the community as a whole still bear the attendant costs associated with the spread of these conditions (eg costs associated with the treatment and prevention of these conditions as well as economic loss arising from worker absenteeism due to illness).

In order to protect the public, authorities must be in a position to:

- identify the emergence of notifiable conditions that require measures to be implemented to limit the spread of the condition
- identify the prevalence of conditions that are a significant public health risk in Queensland but do not necessarily represent a risk in other jurisdictions

63 AS Fauci, NA Touchette and GK Folkers Emerging Infectious Diseases(2005) A 10-Year Perspective from the National Institute of Allergy and Infectious Diseases, *CDC* 11(4)

64 Australian Bureau of Statistics (2005) *Causes of Death* 3303.0.55.001

65 Dore GJ ; Li Y ; Plant AJ ; Kaldor JM (1998) Trends in infectious disease mortality in Australia, 1979-1994 *Medical Journal of Australia*, 168(12):601-4

- monitor the prevalence of conditions that may indicate the existence of a public health risk such as gastroenteritis from contaminated food or water
- monitor the incidence and distribution of conditions to inform public health policy and strategies.

14.1.2 LEGISLATIVE RESPONSE TO NOTIFIABLE CONDITIONS

While each jurisdiction in Australia has enacted legislation that provides for the notification of certain medical conditions, these jurisdictions do not operate in isolation. A nationally coordinated approach is of increasing importance given today's mobile population and the widespread distribution of goods. Consequently, Queensland contributes to a number of programs that have been implemented to provide national leadership and coordination on the surveillance, prevention, management and control of certain notifiable conditions[66]. For example, information is provided about the incidence of notifiable conditions in Queensland to the National Diseases Surveillance System and OzFoodNet, which are maintained by the Commonwealth Department of Health and Ageing.

The National Diseases Surveillance System (NNDSS) was established to: facilitate the detection of at least 60 notifiable conditions; assist with the management of outbreaks affecting more than one jurisdiction; monitor the need for and impact of national control programs; guide national policy development and resource allocation; and assist with the epidemiological description of rare diseases for which there are only a few notifications in each jurisdiction. National surveillance also assists in quarantine activities and facilitates international collaborations such as reporting to the World Health Organization[67].

The OzFoodNet network was established, in 2000, at a national level to facilitate a more collaborate approach to the study and investigation of food-borne disease. Using information provided by the States and Territories, OzFoodNet reports quarterly on investigations of gastroenteritis outbreaks and clusters of disease potentially related to food.

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66 Data about notifiable conditions has been collected on a national basis since 1917.

67 See information on surveillance systems for communicable disease in Australia available on the Commonwealth Department of Health and Ageing website. Available at <http://www.health.gov.au>

The notifiable condition provisions of the *Public Health Act 2005* and *Public Health Regulation 2005* will help ensure that the Queensland Government is able to respond to public expectations about the Government's role to protect the public health from outbreaks of notifiable conditions and contribute to national programs which have been implemented to monitor and control the outbreak of certain notifiable conditions.

Similar to legislation enacted in other States and Territories of Australia, Chapter 3 of the *Public Health Act 2005* has been enacted to protect persons from notifiable conditions through mechanisms that provide an appropriate balance between the health of the public and the right of individuals to liberty and privacy[68]. The Act does this by providing for the establishment and maintenance of a Notifiable Conditions Register comprised of information that must be given to the chief executive by doctors, hospitals and pathology laboratories about a person who has or had a notifiable condition. The Act also enables action to be taken by public health authorities to prevent or minimise the transmission of notifiable conditions, including those more serious notifiable conditions to be known as controlled notifiable conditions.

To give effect to the mechanisms provided under Chapter 3 of the *Public Health Act 2005*, it is necessary for regulations to be made which:

- list those medical conditions to be prescribed as notifiable conditions
- identify those notifiable conditions about which a doctor, person in charge of a hospital or person in charge of a pathology laboratory will be required to notify the chief executive
- set out procedural requirements for the making of notifications to the chief executive
- list those medical conditions to also be prescribed as controlled notifiable conditions

The objective of Chapter 3 of the Act, to protect the public from notifiable conditions, could not be fulfilled without the making of the notifiable condition provisions of the *Public Health Regulation 2005*. These provisions were introduced on 1 December 2005[69]. A Regulatory Impact Statement (RIS) was not published at that time due to the urgency required

68 Section 65 of the *Public Health Act 2005*.

69 Available at <http:\\www.legislation.qld.gov.au

in ensuring that sufficient legislative provisions were available to deal with a potential avian influenza outbreak. The statutory exception to the requirement to publish a Regulatory Impact Statement under section 46(2) of the *Statutory Instruments Act 1992* was invoked.

Health authorities around the world have been reviewing their ability to manage a pandemic in light of the emergence of a new and severe influenza virus – the H5N1 strain. As of 30 December 2005, there have been 142 laboratory confirmed cases of the H5N1 strain of influenza (of which more than half died) reported to the World Health Organisation (WHO)[70]. Based on historical patterns, influenza pandemics can be expected to occur, on average, three to four times each century. Many experts believe another pandemic is inevitable.

The WHO uses a pandemic alert comprised of six phases to inform the world of the seriousness of the threat and of the need to launch progressively more intense preparedness activities. The world is presently in phase 3: a new influenza virus subtype is causing disease in humans, but is not yet spreading efficiently and in a sustainable manner among humans. The impact of a pandemic cannot be accurately forecast, as it will be dependent on the number of people who become infected, the virulence of the virus, the vulnerability of affected populations and the effectiveness of preventative measures. Estimates of the number of deaths from the next pandemic have ranged between 2 million to 50 million people worldwide. However, it is well accepted that a pandemic will result in significant social and economic disruptions.

However, to ensure the principles of the *Statutory Instruments Act 1992* are maintained and to enable a full and proper disclosure of the impact the provisions regarding notifiable conditions may have on the community, information that would have been published in a RIS is included in this attachment.

70 http://www.who.int/csr/disease/avian_influenza/country/cases_table_2005_12_30/en/index.html

14.2 MATTERS PRESCRIBED UNDER REGULATION

14.2.1 NOTIFIABLE CONDITIONS

Section 64 of the *Public Health Act 2005* provides for a medical condition to be prescribed under regulation as a notifiable condition if the Minister is satisfied the condition is a significant risk to public health. The medical conditions listed in Table 7 have been prescribed as notifiable conditions under the *Public Health Regulation 2005*[71]. These conditions can be generally categorised as:

- blood-borne viruses (eg Hepatitis C)
- conditions caused by gastroenteric pathogens, some of which may be transmitted by food or water (eg salmonella)
- conditions caused by potential bio-terrorism agents (eg smallpox)
- invasive bacterial diseases (eg invasive meningococcal disease)
- mosquito and animal borne infections (eg dengue fever, Q fever)
- new and emerging communicable conditions (eg Severe Acute Respiratory Syndrome and Avian Influenza).
- sexually transmissible infections (eg gonorrhoea, chlamydia)
- vaccine preventable diseases (eg measles, pertussis).

14.2.2 NOTIFICATION REQUIREMENTS

While a doctor can identify some notifiable conditions as a result of a clinical examination, other conditions can only be confirmed on the basis of a pathological examination. Accordingly, the *Public Health Act 2005*[72] provides for those notifiable conditions about which a doctor, person in charge of a hospital or person in charge of a pathology laboratory must notify the chief executive to be classified as being:

- a clinical diagnosis notifiable condition which is a notifiable condition for which a diagnosis can be made on the basis of clinical evidence, including clinical history, signs and symptoms.

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71 Available at <http://www.legislation.qld.gov.au

72 Section 62 of the *Public Health Act 2005.*

- a pathological diagnosis notifiable condition which is a notifiable condition for which a diagnosis can be made on the basis of a pathological examination of a specimen of human origin.
- a provisional diagnosis notifiable condition which is a notifiable condition, for which a tentative diagnosis can be made on the basis of clinical evidence, including clinical history, signs and symptoms. Further diagnostic work will be required to confirm the diagnosis through either laboratory confirmation or exclusion of other causes of the syndrome.
- a pathology request notifiable condition which is a notifiable condition for which a pathology laboratory will be required to make a notification upon receipt of a request for a pathology examination of a specimen of human origin.

Doctors will be required to notify the chief executive if an examination of a person by the doctor indicates that the person has, or had, a clinical diagnosis notifiable condition or a provisional diagnosis notifiable condition.

The person in charge of a hospital (public or private) will be required to make a notification about a person if an examination of the person by a doctor in the hospital indicates the person has, or had, a clinical diagnosis notifiable condition or a provisional diagnosis notifiable condition.

The director of pathology laboratory will be required to make a notification to the chief executive if a pathological examination of a specimen of human origin indicates a person has, or had, a pathological diagnosis notifiable condition or a request for a pathological examination of a specimen of human origin for a pathology request notifiable condition.

The notice provided to the chief executive must be made in the approved form and comply with requirements prescribed under regulation[73]. A notification must be made by fax, email or other electronic means either immediately or within 48 hours. Table 8 sets out the timeframes for the making of notifications for each of the conditions prescribed as a notifiable condition under the *Public Health Regulation 2005*.

73 Refer to sections 70(2), 71(2), 72(2) and 73(2) of the *Public Health Act 2005*.

14.2.3 CONTROLLED NOTIFIABLE CONDITIONS

The *Public Health Act 2005* provides for certain notifiable conditions to be classified as controlled notifiable conditions. Under section 63 of the Act, a medical condition may be prescribed under regulation as a controlled notifiable condition if the Minister is satisfied that the condition may have a substantial impact on public health; the ordinary conduct of a person with the condition is likely to result in the transmission of the condition to someone else; and the transmission of the condition will result in, or is likely to result in, long term or serious deleterious consequences for the health of another person.

The following notifiable conditions are also prescribed as controlled notifiable conditions under the *Public Health Regulation 2005*:

- acquired immunodeficiency syndrome (AIDS)
- avian influenza
- cholera
- hepatitis C
- human immunodeficiency virus infection (HIV)
- influenza
- lyssavirus (rabies)
- paratyphoid
- plague
- severe acute respiratory syndrome (SARS)
- smallpox
- syphilis, including congenital syphilis
- tuberculosis
- typhoid
- viral haemorrhagic fevers (Crimean-Congo, Ebola, Lassa fever and Marburg viruses)
- yellow fever

Chapter 3 of the *Public Health Act 2005*, enables public health authorities to act, in the public interest, if a person has a controlled notifiable condition that, or the person's likely behaviour in the presence of that condition,

constitutes an immediate risk to public health. In the majority of cases, it is envisaged that individuals will co-operate with public health authorities to ensure that their health, or the health of others, is not endangered. However, there may be exceptional cases where a person's reluctance to voluntarily co-operate represents a significant risk to public health and a more restrictive approach to their management is required.

Consequently, as with the existing *Health Act 1937*, the *Public Health Act 2005* also includes provisions that make it an offence for a person to act in such a way that they may contribute to the reckless spread of a controlled notifiable condition[74]. The Act makes it is an offence for a person to recklessly put another person at risk of contracting a controlled notifiable condition, unless the other person knew that the person had the condition and voluntarily accepted the risk of contracting the condition. The maximum penalty that may be imposed for this offence is $ 15,000 or 18 months imprisonment. In addition, it is an offence to recklessly transmit a controlled notifiable condition to another person, unless the other person knew that the person had the condition and voluntarily accepted the risk of contracting the condition. The maximum penalty that may be imposed for this offence is $30,000 or 2 years imprisonment.

14.3 BENEFITS AND COSTS OF THE NOTIFIABLE CONDITIONS PROVISIONS

14.3.1 IMPACT ON INDIVIDUALS AND THE COMMUNITY

The notifiable conditions provisions of the *Public Health Regulation 2005* will assist in identifying and preventing or minimising outbreaks of notifiable conditions. In doing so, they will help minimise the costs of notifiable conditions to individuals, families and the community generally. Examples of the costs are outlined below.

Ross River Virus

Ross River Virus is endemic to Queensland. Between 2000 and 2004, there were on average 1691 (range 887 - 2517) notifications per year in Queensland. Although in epidemic years, notifications may be higher (in 1996 there were 4880 notifications in Queensland). The cost of testing,

74 See section 143 of the *Public Health Act 2005*. It should be noted that the deliberate transmission of, or exposure of another person to, a serious transmissible infection is provided for under section 317 of the Criminal Code.

treating and lost earnings as a result of infection from Ross River virus is estimated at between $2.7 million and $5.6 million nationally, in an average year[75]. This estimate is considered conservative as it is based on the assumption that half the number of people infected would take one week off work through illness, and excludes the substantial cost of other investigations, treatment, or decreased work output.

Food borne illnesses

The human cost of food-borne illness in the U.S. in 1995 was estimated at between 3.3 to 12.3 million cases annually, and up to 3900 deaths. The annul cost to the U.S. economy in 1995 was $6.5-$34.9 billion dollars (U.S.). These figures reflect a risk to not only locals but also tourists and food trade partners. An estimate of the extent and cost of food-borne illness in New Zealand (with approximately 20% of the Australian population) suggests that the total cost from approximately 120,000 cases per annum was $55.1 million, including $2.1 million in direct medical costs, $0.2 million in non-medical costs, $48.1 million in loss productivity and $4.7 million in loss of life[76].

HIV/AIDS

Since 1984 (when testing for HIV became available) to June 2000, 17,500 people in Australia have been found to be HIV positive and approximately 6,000 of those people have died from AIDS[77]. The transmission of Human Immune-deficiency Virus (HIV) is associated with other infectious diseases, particularly sexually transmitted infections (STIs) and blood-borne infections such as Hepatitis C. Queensland, in collaboration with other jurisdictions, is responsible for the development and implementation of policies to address the personal, social and community aspects of HIV/AIDS, hepatitis C, sexually transmitted infections, and related diseases. In the early 1990s it was estimated that the average lifetime cost of treatment for Acquired Immune Deficiency Syndrome in Australia was $160,000 per patient. Indirect mortality costs have been

75 Harley D, Sleigh A, Ritchie S (2001) Ross river transmission, infection, and disease: a cross-disciplinary review. *Clinical Microbiology Reviews*, 14(4):909-932.

76 Scott WG, Lake RJ, Baker MG (2000) Economic cost to New Zealand of food borne infectious disease. *New Zealand Medical Journal*, July 14:281-284.

77 *Sexual Health:HIV/AIDS&Hepatitis C* Available at <www.health.qld.gov.au/sexhealth/factssheets/HIV_AIDS.shtml>

estimated at $600,000 per case[78]. These estimates in today's terms would need to be revised considerably given the increase in treatment costs[79].

14.3.2 IMPACT ON THE STATE GOVERNMENT

As discussed earlier, the notifiable condition provisions of the *Public Health Act 2005* and *Public Health Regulation 2005* will help ensure that the Queensland Government is able to respond to public expectations about the Government's role to protect the public health from outbreaks of notifiable conditions and contribute to national programs which have been implemented to monitor and control the outbreak of certain notifiable conditions.

The Queensland Government will continue to meet the costs associated with the identification, monitoring and management of notifiable conditions in Queensland. These costs are spread across various public sector health services, including the regional networks of Population Health Units, specialised health services (such as the various Chest Clinics responsible for the management of persons with tuberculosis) public hospitals, child health clinics which provide free vaccination services and other community-based health services.

One of the key costs associated with Queensland's new public health legislation is the cost of processing notifications and the maintenance of the Notifiable Conditions Register. System support costs for the Register are estimated to be approximately $220,000 per annum (including server hosting, application maintenance, quality checking and data-entry by 2.6 full-time staff).

14.3.3 IMPACT ON DOCTORS, HOSPITALS AND PATHOLOGY LABORATORIES

The categorisation of the notifiable conditions under the *Public Health Regulation 2005* will benefit doctors, hospitals and pathology laboratories as it more clearly delineates which conditions a doctor, a hospital or a

78 Commonwealth Department of Health and Ageing (2002) *Return on Investment in Needle & Syringe Programs in Australia – Report*. Canberra

79 Cooper DA, Elias DJ. (1990) Estimated economic costs of HIV/AIDS: 1988/89 to 1992/93, in Selby Smith C (ed) *Economics and health: 1989 proceedings of the eleventh Australian conference of health economists*, Clayton Victoria, Monash University, p18025.

pathology laboratory will be required to make a notification about. Failure to comply with the notification requirement of the *Public Health Act 2005*[80] is an offence for which a maximum penalty of $1,500 may be imposed for an individual or $7,500 for a corporation.

The costs associated with the making of a notification will be borne by doctors, hospitals and pathology laboratories. An approximation of these costs has been calculated based on the number of notifications made in 2004 by doctors, hospitals and pathology laboratories in accordance with the requirements of the *Health Act 1937* and *Health Regulation 1996*[81]. In 2004, the chief executive received 28,432 notifications and, of these notifications, approximately 98% were made by pathology laboratories.

It is anticipated that the majority of notifications to be made under the *Pubic Health Act 2005* will also be made by pathology laboratories. Of the 84 notifiable conditions prescribed under the *Public Health Regulation 2005*:

- 21 require a notification to be made by either a doctor or hospital only
- 72 require a notification to be made by a pathology laboratory only
- 11 require a notification to be made by a pathology laboratory as well as a doctor or hospital.[82]

It is important to note, however, that a number of the notifiable conditions prescribed under the *Public Health Regulation 2005* have been included so that public health authorities can be alerted about the emergence of notifiable conditions which are not currently prevalent in Queensland. For example, as indicated in Table 6, over the four-year period of 2000 to 2004, no notifications were made in Queensland for conditions such diphtheria, plague, viral haemorrhagic fevers or yellow fever.

Doctors and hospitals will only be required to make notifications about a small number of notifiable conditions – 12 clinical diagnosis notifiable conditions and 10 provisional diagnosis notifiable conditions. Using the notifications figures for 2004 (of which there were only 560 such notifications), it is estimated that the total cost of making these notifications will be $11,480 per annum. Each notification will involve at

80 See sections 70, 71, 72 and 73 of the *Public Health Act 2005*.

81 Refer to section 32A of the *Health Act 1937* and Schedule 2 of the *Health Regulation 1996*.

82 Refer to Table 7.

least 5 minutes to complete a notification form, $20 in consultation time and $0.50 per fax or postage.

As discussed above, pathology laboratories will be required to make notifications about pathology request notifiable conditions and pathological diagnosis notifiable conditions. The costs to be borne by pathology laboratories will be minimal as the notification that must be given to the chief executive is essentially a copy of the pathology result provided to the medical practitioner who requested the pathology test. Currently, two of the three largest pathology laboratory networks in Queensland (which make approximately 60% of all notifications) submit notifications electronically. It is envisaged that within the next year, the third network will be able to provide this information electronically (increasing the amount of notifications made electronically to 90%). Based on the 2004 notification figures, it is estimated that once the 90% threshold is reached, the total cost of providing electronic notifications will be $20,000 per annum. The cost of providing the remaining 10% of notifications coming from other pathology laboratories is estimated to be $1,500 per annum (i.e. 3,000 notifications per year at $0.50 per fax or postage).

The costs to be borne by individual doctors, hospitals and pathology laboratories will be minimal, and as such it is not envisaged that these costs will be passed onto consumers.

14.4 CONCLUSION

The benefits of the notifiable conditions provisions outweigh the costs. The provisions will assist in reducing the incidence of notifiable conditions. This will minimise the costs of notifiable conditions on individuals, families and the community. Access to information for monitoring changing disease trends in the community is vital to evaluate and assess the effectiveness of public health information campaigns. The costs of the provisions as outlined above are comparatively minimal.

TABLE 6: NUMBER OF NOTIFICATIONS IN QUEENSLAND 2000 TO 2004

Notifiable condition	2000	2001	2002	2003	2004
Barmah Forest Virus Infection	345	602	387	871	586
Botulism	0	1	0	0	0

Notifiable condition	2000	2001	2002	2003	2004
Brucellosis	27	18	34	12	29
Campylobacteriosis	3675	3964	3876	3838	4104
Cholera	0	1	0	0	1
Cryptosporidiosis	NN	415	2023	163	674
Dengue fever	85	42	82	723	272
Diphtheria	0	0	0	0	0
Donovanosis	13	10	5	9	3
Gonococcal infection	1155	1101	930	1044	1192
Haemolytic uraemic syndrome (HUS)	3	0	1	1	1
Haemophilus influenzae type b infection (invasive)	12	5	6	5	3
Hepatitis A infection	133	120	67	48	27
Hepatitis D infection	5	2	2	1	0
Hepatitis E infection	0	1	1	0	4
Legionellosis	48	37	44	38	34
Leptospirosis	135	128	93	69	121
Listeriosis	13	21	20	9	8
Malaria	409	297	207	253	263
Measles	28	11	8	11	0
Meningococcal infection (invasive)	66	129	124	105	85
Mumps	NN	3	6	10	17
Ornithosis (psittacosis)	NN	NN	3	2	3
Pertussis	539	1628	1852	716	1032
Plague	0	0	0	0	0
Q Fever	394	443	355	222	151
Rabies	0	0	0	0	0
Ross River Virus Infection	1474	1568	887	2518	2007
Rubella	46	134	189	25	10
Salmonellosis	1831	2199	2674	2186	2802
Shigellosis	107	107	93	52	67
Tetanus	2	0	3	2	3
Tuberculosis	110	120	144	96	137
Tularaemia					
Typhoid and parathyroid	2	10	12	4	10

Notifiable condition	2000	2001	2002	2003	2004
Viral haemorrhagic fevers (Crimean-Congo, Ebola, Lassa fever and Marburg viruses)	0	0	0	0	0
Yellow fever	0	0	0	0	0

Abbreviation for 'NN': Condition not notifiable for this year.

The data was obtained from the National Notifiable Diseases Surveillance System, Department of Health and Ageing (Commonwealth) which can be accessed at http://www.health.gov.au.

TABLE 7: NOTIFIABLE CONDITIONS

Notfiable condition	Clinical diagnosis notifiable condition	Pathological diagnosis notifiable condition	Pathology request notifiable condition	Provisionald iagnosis notifiable condition
acquired immunodeficiency syndrome (AIDS)	•			
acute flaccid paralysis	•			
acute rheumatic fever	•			
acute viral hepatitis				•
Adverse event following vaccination	•			
Anthrax		•	•	
arbovirus infections: - alphavirus infections (including Barmah Forest, getah, Ross River and sindbis viruses; - bunyavirus infections, including gan gan, mapputta, termeil, and trubanaman viruses; - flavivirus infections, including alfuy, Edge Hill, Japanese encephalitis, kokobera, kunjin, Murray Valley encephalitis, Stratford and other unspecified flaviviruses (excluding dengue fever and yellow fever)		• • •	• •	

Notfiable condition	**Clinical diagnosis notifiable condition**	**Pathological diagnosis notifiable condition**	**Pathology request notifiable condition**	**Provisionald iagnosis notifiable condition**
- any other arbovirus infections (excluding dengue fever and yellow fever)		•		
atypical mycobacterial infection		•		
avian Influenza		•	•	•
botulism (food-borne)		•	•	
botulism (intestinal-adult)		•	•	
botulism (intestinal – infantile)		•	•	
botulism (wound)		•		
brucellosis		•		
campylobacteriosis		•		
chancroid		•		
chlamydia trachomatis infection (anogenital)		•		
chlamydia trachomatis infection (non-anogenital)		•		
chlamydia trachomatis infection (lymphogranuloma venereum)		•		
cholera		•		
ciguatera intoxication	•			
Creutzfeldt-Jakob disease	•	•		•
cryptococcosis		•		
cyptosporidiosis		•		
dengue fever		•		•
diphtheria		•		•
donovanosis		•		
echinococcosis (hydatid disease)		•		
equine morbillivirus (Hendra virus) infection		•	•	
food borne or water borne illness in 2 or more cases	•			

Notfiable condition	Clinical diagnosis notifiable condition	Pathological diagnosis notifiable condition	Pathology request notifiable condition	Provisionald iagnosis notifiable condition
food borne or water borne illness in food handler	•			
gonococcal infection (anogenital)		•		
gonococcal infection (non-anogenital)		•		
haemolytic uraemic syndrome (HUS)	•	•		•
haemophilus influenzae type b infection (invasive)		•		•
Hansen's disease (leprosy)		•		
hepatitis A		•		
hepatitis B (acute)		•		
hepatitis B (chronic)		•		
hepatitis B (not otherwise specified)		•		
hepatitis C		•		
hepatitis D		•		
hepatitis E		•		
hepatitis (other)		•		
human immunodeficiency virus infection (HIV)		•		
influenza		•		
invasive group A Streptococcal infection		•		
lead exposure		•		
legionellosis		•		
leptospirosis		•		
listeriosis		•		
lyssavirus (Australian bat lyssavirus)		•	•	
lyssavirus (Australian bat lyssavirus), potential exposure	•			

Notfiable condition	**Clinical diagnosis notifiable condition**	**Pathological diagnosis notifiable condition**	**Pathology request notifiable condition**	**Provisionald iagnosis notifiable condition**
lyssavirus (rabies)		•	•	
lyssarivus (unspecified)		•	•	
malaria		•		
measles		•		•
melioidosis		•		
meningococcal infection (invasive)		•		•
mumps		•		
ornithosis (psittacosis)		•		
paratyphoid		•		
pertussis	•	•		
plague		•	•	
pneumococcal disease (invasive)		•		
poliomyelitis – wild type and vaccine associated		•	•	
Q Fever		•		
rotavirus infection		•		
rubella, including congenital rubella		•		
salmonellosis		•		
severe acute respiratory syndrome (SARS)		•	•	•
shiga toxin and vero toxin producing *escherichia coli* infection SLTEC/VTEC		•		
shigellosis		•		
smallpox		•	•	•
syphilis, including congenital syphilis		•		
tetanus	•	•		
tuberculosis		•		

Notfiable condition	Clinical diagnosis notifiable condition	Pathological diagnosis notifiable condition	Pathology request notifiable condition	Provisionald iagnosis notifiable condition
tularaemia		•	•	
typhoid		•		
varicella – zoster virus infection (chickenpox, shingles or unspecified)		•		
viral haemorrhagic fevers (Crimean-Congo, Ebola, Lassa fever and Marburg viruses)		•	•	•
yellow fever		•	•	
yersiniosis		•		

Please note: The *Public Health Regulation 2005* that commenced on 1 December 2005 required dengue to be a pathology request notifiable condition. Because in excess of 200 requests for dengue pathology in Queensland per week have been received, there was an amendment to the *Public Health Regulation 2005* to remove dengue from the pathology request notifiable condition requirements. This amendment commenced on 19 May 2006. By amending the notification requirements to be within 48 hours, the regulatory burden on pathology laboratories will be lessened and the workload of public health units who would currently be required to assess the risk of each request, before a diagnosis is received will be reduced.

In addition, in the *Public Health Regulation 2005* that commenced on 1 December 2005, the wording, varicella-zoster virus infection (chickenpox) was used. On 19 May 2006 this wording was amended to, varicella-zoster infection (chickenpox, shingles or unspecified) to ensure national consistency and clarify that shingles and unspecified cases are also to be notified.

These changes have been included in the table above.

TABLE 8: TIMEFRAMES FOR MAKING OF NOTIFICATIONS ABOUT NOTIFIABLE CONDITIONS

Notifiable Condition	Immediate notification after examination	Notification within 48 Hours
acquired immunodeficiency syndrome (AIDS)		•
acute flaccid paralysis	•	
acute rheumatic fever		•
acute viral hepatitis		•
adverse event following vaccination		•
anthrax	•	
arbovirus infections:		
- alphavirus infections (including Barmah Forest, getah, Ross River and sindbis viruses;		•
- bunyavirus infections, including gan gan, mapputta, termeil, and trubanaman viruses;		•
- flavivirus infections, including alfuy, Edge Hill, Japanese encephalitis, kokobera, kunjin, Murray Valley encephalitis, Stratford and other unspecified flaviviruses (excluding dengue fever and yellow fever)	•	
- any other arbovirus infections (excluding dengue fever and yellow fever)		•
atypical mycobacterial infection		•
avian Influenza	•	
botulism (food-borne)	•	
botulism (intestinal-adult)	•	
botulism (intestinal – infantile)	•	
botulism (wound)		•
brucellosis		•
campylobacteriosis		•
chancroid		•
chlamydia trachomatis infection (anogenital)		•

Notifiable Condition	Immediate notification after examination	Notification within 48 Hours
chlamydia trachomatis infection (non-anogenital)		•
chlamydia trachomatis infection (lymphogranuloma venereum)		•
cholera	•	
ciguatera intoxication	•	
Creutzfeldt-Jakob disease		•
cryptococcosis		•
cyptosporidiosis		•
dengue fever		•
diphtheria		•
donovanosis		•
echinococcosis (hydatid disease)		•
equine morbillivirus (Hendra virus) infection		•
food borne or water borne illness in 2 or more cases	•	
food borne or water borne illness in food handler	•	
gonococcal infection (anogenital)		•
gonococcal infection (non-anogenital)		•
haemolytic uraemic syndrome (HUS)	•	
haemophilus influenzae type b infection (invasive)		•
hansen's disease (leprosy)		•
hepatitis A	•	
hepatitis B (acute)		•
hepatitis B (chronic)		•
hepatitis B (not otherwise specified)		•
hepatitis C		•
hepatitis D		•

Notifiable Condition	Immediate notification after examination	Notification within 48 Hours
hepatitis E		•
hepatitis (other)		•
human immunodeficiency virus infection (HIV)		•
influenza		•
invasive Group A Streptococcal infection		•
lead exposure		•
legionellosis	•	
leptospirosis		•
listeriosis		•
lyssavirus (Australian bat lyssavirus)	•	
lyssavirus (Australian bat lyssavirus), potential exposure	•	
lyssavirus (rabies)	•	
Lyssarivus (unspecified)		•
malaria		•
measles	•	
melioidosis		•
meningococcal infection (invasive)	•	
mumps		•
ornithosis (psittacosis)		•
paratyphoid	•	
pertussis		•
plague	•	
pneumococcal disease (invasive)		•
poliomyelitis – wild type and vaccine associated	•	
Q Fever		•
rotavirus infection		•

Notifiable Condition	Immediate notification after examination	Notification within 48 Hours
rubella, including congenital rubella		•
salmonellosis		•
severe acute respiratory syndrome (SARS)	•	
shiga toxin and vero toxin producing *Escherichia coli* infection SLTEC/VTEC		•
shigellosis		•
smallpox	•	
syphilis, including congenital syphilis		•
tetanus		•
tuberculosis		•
tularaemia	•	
typhoid	•	
varicella – zoster virus infection (chickenpox, shingles and other unspecified types)		•
viral haemorrhagic fevers (Crimean-Congo, Ebola, Lassa fever and Marburg viruses)	•	
yellow fever	•	
yersiniosis		•

These timeframes have been established in section 9 and schedule 2 of the *Public Health Regulation 2005*.

Please note: The *Public Health Regulation 2005* that commenced on 1 December 2005 required dengue to be a pathology request notifiable condition with immediate notification after examination. Because in excess of 200 requests for dengue pathology in Queensland per week have been received, there was an amendment to the *Public Health Regulation 2005* to remove dengue from the pathology request notifiable condition requirements. This amendment commenced on 19 May 2006. By amending the notification requirements to be within 48 hours the regulatory burden on pathology laboratories will be lessened and the workload of public health units who would currently be required to assess the risk of each request, before a diagnosis is received will be reduced.

In addition, in the *Public Health Regulation 2005* that commenced on 1 December 2005, the wording, varicella-zoster virus infection (chickenpox) was used. On 19 May 2006 this wording was amended to, varicella-zoster infection (chickenpox, shingles or unspecified) to ensure national consistency and clarify that shingles and unspecified cases are also to be notified.

These changes have been included in the above table.

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15 FUNDAMENTAL LEGISLATIVE PRINCIPLES

The proposed amendments to the *Public Health Regulation 2005* are consistent with fundamental legislative principles in section 4 of the *Legislative Standards Act 1992* with two exceptions:

- Section 2 N
- Section 2 W.

Section 2N includes a defence to the provisions if a relevant person can prove they took all reasonable steps to ensure that an accumulation of water or another liquid at the place is not a breeding ground for mosquitos.

Section 2W includes a defence to the provisions if a relevant person can prove they took all reasonable steps to ensure that vermin are not harboured on their land and that the land is not a breeding ground for vermin.

These provisions are a technical reversal of the onus of proof in criminal proceedings. It requires the defendant to prove that they took all reasonable steps. However, this reversal is justifiable because it is necessary for the operation of the legislation. It also enables the defendant to prove something that will be peculiarly within the defendant's knowledge at the time and it would be very difficult or very expensive for anyone else to prove.

These provisions have specifically been included to protect people who may take all reasonable steps, but despite this, mosquito larvae or vermin have been found on their premises. The inclusion of these defence provisions will make it fairer for people who have taken reasonable steps. In both cases the fundamental legislative principles are minor and are justified for these reasons.

The proposed provisions are not part of national scheme legislation.

APPENDIX ONE:

DRAFT AMENDMENTS

TO THE

PUBLIC HEALTH REGULATION 2005

Queensland

Public Health and Other Legislation Amendment Regulation (No. ..) 2006

Subordinarte Legislation 2006 No. ...

made under the

Health Act 1937
Public Health Act 2005
State Penalties Enforcement Act 1999

Contents

Part 1 Preliminary

1 Short title

This regulation may be cited as the *Public Health and Other Legislation Amendment Regulation (No. ..) 2006*.

2 Commencement

This regulation commences on 1 July 2006.

Part 2 Amendment of Health Regulation 1996

3 Regulation amended in pt 2

This part amends the *Health Regulation 1996*.

4 Omission of pt 8 (Mosquito prevention and destruction)

Part 8—

omit.

5 Omission of pt 17 (Vermin control)

Part 17—

omit.

Part 3 Amendment of Public Health Regulation 2005

6 Regulation amended in pt 3

This part amends the *Public Health Regulation 2005.*

7 Insertion of new pt 1A

After section 2—

insert—

‘Part 1A Public health risks

‘Division 1 Asbestos

‘2A Purpose and application of div 1

‘(1) This division prescribes, under section 61(1)(c)[83] of the Act, measures to prevent and control the public health risk mentioned in section 11(1)(b)(vi)[84] of the Act in relation to the dispersal or release of asbestos fibres.

‘(2) This division applies in relation to non-workplace areas.

‘2B Definitions for div 1

‘In this division—

ACM means any material, object, product or debris containing asbestos.

asbestos means the fibrous form of the mineral silicates belonging to the serpentine and amphibole groups of rock-forming minerals and includes—

83 Section 61 (Regulations about public health risks) of the Act

84 Section 11 (Meaning of *public health risk*) of the Act

(a) actinolite, amosite (brown asbestos), anthophyllite, crocidolite (blue asbestos), chrysotile (white asbestos), and tremolite; and

(b) a mixture containing 1 or more of the minerals mentioned in paragraph (a).

associated asbestos waste means any of the following—

(a) ACM, except a sample of ACM removed for scientific testing, that is removed in a non-workplace area, including any ACM dust that has been collected;

(b) personal protective equipment contaminated with ACM.

bonded ACM means ACM containing a bonding compound reinforced with asbestos fibres.

Examples—

asbestos cement pipes, flat or corrugated asbestos cement sheets consisting of sand and cement reinforced with asbestos fibres

non-workplace area means a place, or part of a place, that is not a workplace within the meaning of the *Workplace Health and Safety Act 1995*.

Note—

Under the *Workplace Health and Safety Act 1995*, a ***workplace*** is any place where work is, or is to be, performed by—

(a) a worker; or

(b) a person conducting a business or undertaking.

prescribed work means doing any of the following in relation to ACM—

(a) breaking;

(b) cleaning;

(c) cutting;

(d) damaging;

(e) maintaining;

(f) removing;

(g) repairing;

(h) storing;

(i) using.

remove, in relation to ACM, includes move the ACM from the position where it was installed immediately before 1 July 2006.

Example of removing ACM—

moving a sheet of ACM to access an area for maintenance

‘2C Administration and enforcement of div 1

‘This division is to be administered and enforced by local governments only.

‘2D Removal of friable ACM

‘(1) A person must not remove friable ACM unless the person holds a certificate to carry out the removal under the *Workplace Health and Safety Act 1995*.

Maximum penalty—100 penalty units.

‘(2) In this section—

friable ACM means ACM that—

(a) does not contain a bonding compound reinforced with asbestos fibres; and

(b) when dry, is or may become crumbled, pulverised or reduced to powder by hand pressure.

‘2E Removal of bonded ACM

‘A person must not remove a quantity of bonded ACM that is $10m^2$ or more unless the person holds a certificate to carry out the removal under the *Workplace Health and Safety Act 1995*.

Maximum penalty—100 penalty units.

‘2F Cleaning or cutting ACM

‘A person must not use—

(a) a power tool to cut or clean ACM; or

Examples—

- using an electric sander to remove paint from asbestos cement sheeting
- using an angle grinder to cut asbestos cement pipes

(b) a high pressure water process to clean ACM; or

Example—

using a water blaster to clean an asbestos cement roof

(c) compressed air to clean ACM or a surface where ACM is present.

Examples—

- using compressed air to clean an area after working with asbestos cement sheeting
- using compressed air to clean the brake drums of a car

Maximum penalty—100 penalty units.

‘2G Requirement to seal bonded ACM if broken

‘(1) This section applies if—

(a) a person is removing bonded ACM or carrying out specified work in relation to bonded ACM in a non-workplace area; and

(b) the bonded ACM is broken.

‘(2) The person must ensure a broken surface of the bonded ACM that is not being removed from the non-workplace area is sealed.

Example of sealing a broken surface of bonded ACM—

applying paint or PVA glue to the surface

Maximum penalty—100 penalty units.

‘(3) In this section—

specified work means manufacturing, construction, repair, alteration, cleaning or demolition work.

'2H Requirement to take reasonable measures to minimise release of asbestos fibres

'(1) A person who carries out prescribed work must take reasonable measures to minimise—

(a) the risk of asbestos fibres being released; and

(b) the associated hazard to the health of the person or any other person.

Maximum penalty—100 penalty units.

'(2) However, subsection (1) does not apply in relation to disposal of associated asbestos waste.

'(3) For subsection (1), reasonable measures may include 1 or more of the following—

(a) spraying water or a coat of PVA glue on the ACM;

(b) using vacuum cleaning equipment that complies with AS 3544 to collect asbestos fibres;

(c) cleaning all equipment that is contaminated with ACM;

(d) wetting the work area before sweeping up ACM;

(e) ensuring, as far as practicable, that ACM is not broken or abraded;

(f) wearing personal protective equipment to minimise the person's exposure to airborne asbestos fibres.

'(4) Subsection (3) does not limit what might be reasonable measures.

'(5) In this section—

AS 3544 means AS 3544 'Industrial vacuum cleaners for particulates hazardous to health' (1988).

'2I Disposal of associated asbestos waste

'(1) A person who carries out prescribed work must ensure all associated asbestos waste is disposed of as soon as practicable in the way mentioned in subsection (2).

Maximum penalty—100 penalty units.

‘(2) The associated asbestos waste must be—

(a) separated from other waste; and

(b) wrapped in heavy-duty polyethylene sheeting, or placed in a polyethylene bag, that is at least 0.2mm thick and labelled with the words ‘ASBESTOS WASTE’ in letters that are at least 5cm high and clearly visible; and

(c) disposed of at a site approved by a local government for the disposal of asbestos waste.

‘2J Prohibition on selling ACM

‘(1) A person must not sell ACM at a non-workplace area.

Maximum penalty—100 penalty units.

‘(2) In this section—

sell includes barter, exchange or supply.

‘Division 2 Mosquitos

‘2K Purpose of div 2

‘This division prescribes, under section 61(1)(b) and (c) of the Act, measures to—

(a) control mosquitos; and

(b) prevent and control the public health risks mentioned in section 11(1)(a) and (b)(i) of the Act in relation to mosquitos.

Note—

Mosquitos are defined as a *designated pest* in schedule 2 of the Act.

‘2L Definitions for div 2

‘In this division—

mosquito includes a mosquito in each stage of its life cycle.

relevant person, for a place, means—

(a) an occupier of the place; or

(b) if there is no occupier of the place—an owner of the place.

relevant tank means a tank or other receptacle that is used or intended to be used for holding or storing water or another liquid.

'2M Administration and enforcement of div 2

'This division is to be administered and enforced by local governments only.

'2N Requirement to ensure place is not a breeding ground for mosquitos

'(1) A relevant person for a place must ensure that an accumulation of water or another liquid at the place is not a breeding ground for mosquitos.

Maximum penalty—40 penalty units.

'(2) In a proceeding for an offence against subsection (1), it is a defence for the defendant to prove that the defendant took all reasonable steps to ensure subsection (1) was complied with.

'(3) In this section—

breeding ground, for mosquitos, means a place where mosquito larvae or pupae are present.

Examples of areas where liquid may accumulate and become a breeding ground for mosquitos—

bromeliads, bowls and other containers, drains, gutters, car bodies, ponds, swimming pools, sump traps, tyres, tubs, water features

'2O Construction, installation and maintenance of a relevant tank

'(1) A person must not construct a relevant tank unless the tank complies with section 2P.

Maximum penalty—40 penalty units.

‘(2) A person must not install a relevant tank, whether above or below ground, unless the tank complies with section 2P.

Maximum penalty—40 penalty units.

‘(3) A relevant person for a place at which a relevant tank is installed must ensure the tank is maintained so it continues to comply with section 2P.

Maximum penalty—40 penalty units.

‘2P Requirements for a relevant tank

‘For section 2O, a relevant tank must have, at every opening of the tank—

(a) mosquito-proof screens that—

(i) are made of brass, copper, aluminium or stainless steel gauze; and

(ii) have a mesh size of not more than 1mm; and

(iii) are installed in a way that does not cause or accelerate corrosion; or

(b) flap valves.

‘2Q Offence to damage screen or flap valve

‘(1) A person must not destroy, damage or remove a mosquito-proof screen or flap valve fixed to a relevant tank.

Maximum penalty—40 penalty units.

‘(2) However, subsection (1) does not stop a person removing the mosquito-proof screen or flap valve to carry out maintenance, if the screen or flap valve is immediately replaced after the maintenance is completed.

‘Division 3 Rats and mice

‘2R Purpose of div 3

‘This division prescribes, under section 61(1)(b) and (c) of the Act, measures to—

(a) control rats and mice; and

(b) prevent and control the public health risks mentioned in section 11(1)(a) and (b)(i) of the Act in relation to rats and mice.

Note—

Rats and mice are defined as a *designated pest* in schedule 2 of the Act.

‘2S Definitions for div 3

‘In this division—

relevant person, for a place, means—

(a) an occupier of the place; or

(b) if there is no occupier of the place—an owner of the place.

relevant structure means any of the following—

(a) a building;

(b) a drain;

(c) a pipe connected to a building;

(d) a retaining wall;

(e) a wharf.

vermin means rats or mice.

‘2T Administration and enforcement of div 3

‘This division is to be administered and enforced by local governments only.

‘2U Requirement for owner of relevant structure

‘(1) An owner of a relevant structure must take reasonable steps to stop vermin entering the structure.

Maximum penalty—40 penalty units.

‘(2) For subsection (1), reasonable steps may include the following—

(a) sealing or covering any holes or gaps in the exterior surface of the structure;

Examples—

- covering a gap in the floor or an external wall of a house with timber
- for a hole in the cladding of a brick house, filling it with mortar or covering it with a metal plate screwed to the wall
- filling a hole with chicken wire or covering it securely with a vermin-proof covering

(b) fitting a cover, grate or plug securely in a covered pipe or drain, including a disused pipe or drain;

(c) removing a disused pipe or drain.

‘(3) This section does not apply in relation to vermin kept under section 2X.

‘2V Offence to damage screen etc. on relevant structure

‘(1) A person must not destroy, damage or remove a screen or other object that has been fixed to a relevant structure for the purpose of stopping vermin entering the structure.

Maximum penalty—40 penalty units.

‘(2) However, subsection (1) does not stop a person removing the screen or other object to carry out maintenance, if the screen or object is immediately replaced after the maintenance is completed.

‘2W Requirement to ensure vermin do not live or breed on land around dwelling

‘(1) A relevant person for land around a dwelling must ensure—

(a) vermin are not harboured on the land; and

(b) the land is not a breeding ground for vermin.

Maximum penalty—40 penalty units.

‘(2) In a proceeding for an offence against subsection (1), it is a defence for the defendant to prove that the defendant took all reasonable steps to ensure subsection (1) was complied with.

‘(3) This section does not apply in relation to vermin kept under section 2X.

‘2X Requirements about keeping vermin as pets etc.

‘(1) This section applies to a person who keeps vermin—

(a) as pets; or

(b) at a laboratory for medical, research, scientific or teaching purposes; or

(c) for the purpose of selling them or using them as a food source for other animals.

‘(2) The person must keep the vermin in an enclosure from which they can not escape.

Maximum penalty—40 penalty units.

‘(3) This section does not limit an applicable local law about keeping vermin.

‘(4) In this section—

sell includes barter, exchange or supply.’.

8 Insertion of new pt 2A

After section 12—

insert—

‘Part 2A Child health—contagious conditions

‘12A Contagious condition—Act, s 158, definition *contagious condition*

‘For the definition *contagious condition* in section 158 of the Act, the contagious medical conditions mentioned in the left column of schedule 2A, part 1 are contagious conditions.

‘12B Requirements for vaccination—Act, s 158, definition *vaccinated*

‘(1) This section prescribes, for the definition *vaccinated* in section 158 of the Act, the way for vaccinating a child for a vaccine preventable condition.

‘(2) The way is for the child to receive all vaccinations for the condition recommended for the child’s age in the document called ‘National Immunisation Program Schedule’ (IMM 66) published by the Department of Health and Ageing (Cwlth) in November 2005.[85]

‘12C Vaccine preventable condition—Act, s 158, definition *vaccine preventable condition*

‘For the definition *vaccine preventable condition* in section 158 of the Act, the contagious conditions mentioned in the left column of schedule 2A, part 2 are vaccine preventable conditions.

‘12D Prescribed period for a contagious condition—Act, s 160

‘(1) For section 160(2) and (3)(a) of the Act, the right column schedule 2A, part 1 identifies the prescribed period for a child suspected under chapter 5[86] of the Act of having a contagious condition.

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85 A copy of the document is available on the Internet at <http://immunise.health.gov.au>.

86 Chapter 5 (Child health) of the Act

‘(2) For section 160(3)(b) of the Act, the right column in schedule 2A, part 2 identifies the prescribed period for a vaccine preventable condition for a child who does not have the condition but who is suspected under chapter 5 of the Act of—

(a) having contact with a child suspected of having the condition; and

(b) not having been vaccinated for the condition.’.

9 Insertion of new sch 2A

After schedule 2—

insert—

‘Schedule 2A Contagious conditions

sections 12A, 12C and 12D

‘Part 1 Contagious conditions and prescribed period for a child suspected of having a contagious condition

Contagious condition	Prescribed period for a child suspected of having the condition	
	Start of period	**End of period**
diphtheria	onset of symptoms of the condition	the treating doctor gives written confirmation 2 negative throat swabs have been taken from the child— (a) the first swab taken at least 24 hours after the child finishes a course of antibiotics; and (b) the second swab taken 48 hours later
enterovirus 71 neurological disease	onset of symptoms of the condition	the treating doctor gives written confirmation the virus is no longer present in the child’s bowel motions
gastroenteritis illness	onset of symptoms of the condition	the child has no symptoms of the condition and has not had a loose bowel motion for at least 24 hours or, if a laboratory test confirms a norovirus, for at least 48 hours

Contagious condition	**Prescribed period for a child suspected of having the condition**	
	Start of period	**End of period**
haemophilus influenzae type b infection (invasive)	onset of symptoms of the condition	the treating doctor gives written confirmation the child is not infectious
hepatitis A	onset of symptoms of the condition	the treating doctor gives written confirmation the child is not infectious, but not earlier than 7 days after the onset of symptoms
measles	onset of symptoms of the condition	the treating doctor gives written confirmation the child is not infectious, but not earlier than 4 days after the onset of the rash caused by the condition
meningococcal infection (invasive)	onset of symptoms of the condition	the treating doctor gives written confirmation the child is not infectious
paratyphoid	onset of symptoms of the condition	the treating doctor gives written confirmation the child is not infectious after— (a) the child has completed an appropriate course of antibiotics; and (b) the child has not had a loose bowel motion for at least 24 hours
pertussis (whooping cough)	onset of symptoms of the condition	the treating doctor gives written confirmation the child is not infectious, but not earlier than— (a) 5 days after the child starts an appropriate course of antibiotics; or (b) 14 days after the onset of coughing caused by the condition
poliomyelitis—wild type and vaccine associated	onset of symptoms of the condition	the treating doctor gives written confirmation the child is not infectious, but not earlier than 14 days after the onset of symptoms
rubella	onset of symptoms of the condition	4 days after the onset of the rash caused by the condition
tuberculosis	onset of symptoms of the condition	the treating doctor gives written confirmation the child is not infectious
typhoid	onset of symptoms of the condition	the treating doctor gives written confirmation the child is not infectious after— (a) the child has completed an appropriate course of antibiotics; and (b) the child has not had a loose bowel motion for at least 24 hours
varicella - zoster virus infection (chickenpox)	onset of symptoms of the condition	all blisters caused by the condition have dried, but not earlier than 5 days after the onset of symptoms

‘Part 2 Vaccine preventable conditions and prescribed period for an at risk child

Vaccine preventable condition	Prescribed period for an at risk child for the condition	
	Start of period	**End of period**
measles	1 for an at risk child who has had relevant contact with a child diagnosed with measles—the at risk child's first relevant contact with the diagnosed child	1 for an at risk child who has had relevant contact with a child diagnosed with measles— (a) when the at risk child is vaccinated for measles, if the child is vaccinated within 72 hours of the child's first relevant contact with the diagnosed child; or (b) otherwise—when the outbreak of measles at the school or child care service attended by the at risk child is declared to be over by the chief executive
	2 for another at risk child—no prescribed period	2 for another at risk child—no prescribed period
pertussis (whooping cough)	1 for an at risk child who lives in the same house as a child diagnosed with pertussis—the at risk child's first relevant contact with the diagnosed child	1 for an at risk child who lives in the same house as a child diagnosed with pertussis— (a) when the child has taken 5 days of an appropriate course of antibiotics; or (b) 14 days after the child's last relevant contact with the diagnosed child
	2 for another at risk child—no prescribed period	2 for another at risk child—no prescribed period

‘Part 3 Definitions

‘1 Definitions for sch 2A

‘In this schedule—

at risk child, for a vaccine preventable condition, means a child who does not have the condition but who is suspected of—

(a) having contact with a child suspected of having the condition; and

(b) not having been vaccinated for the condition.

diagnose, a child with a vaccine preventable condition, means a doctor or laboratory test confirms the child has the condition.

infectious period, for a vaccine preventable condition, means—

(a) for measles—the period starting 4 days before the onset of the rash caused by the condition and ending 4 days after the onset of the rash; or

(b) for pertussis (whooping cough)—the period starting with the onset of symptoms of the condition and ending 3 weeks after the onset of symptoms.

relevant contact, of an at risk child for a vaccine preventable condition with a child who has been diagnosed with the condition, means contact by the at risk child with the diagnosed child during the diagnosed child's infectious period for the condition.

suspected means suspected under chapter 5[87] of the Act.'.

Part 4 Amendment of State Penalties Enforcement Regulation 2000

10 Regulation amended in pt 4

This part amends the *State Penalties Enforcement Regulation 2000*.

87 Chapter 5 (Child health) of the Act

11 Amendment of s 5 (Administering authority for particular nominated laws)

(1) Section 5(2)—

insert—

'(ea) the *Public Health Act 2005*;'.

(2) Section 5(2)(ea) to (h)—

renumber as section 5(2)(f) to (i).

12 Amendment of s 5A (References to Acts)

Section 5A, '(h)'—

omit, insert—

'(i)'.

13 Renumbering of ss 8AA and 8A

Sections 8AA and 8A—

renumber as sections 8B and 8C.

14 Insertion of new s 8A

After section 8—

insert—

'8A Administering authority for Public Health Act 2005

'The administering authority for an infringement notice offence that is an offence against a provision of the *Public Health Act 2005*, or an infringement notice about the offence, is—

(a) for an infringement notice served by an authorised person appointed under section 377(2) or (3) of that Act, the relevant local government; or

(b) otherwise, the department in which the provision is administered.'.

15 Amendment of sch 5 (Other legislation)

Schedule 5—

insert—

‘Public Health Act 2005

Column 1 Infringement notice offence	Column 2 Infringement notice fine (penalty units)	
	Individual	Corporation
s 23(4)	5	25

Authorised person for service of infringement notices—an authorised person appointed under the *Public Health Act 2005*, section 377[88]

‘Public Health Regulation 2005

Column 1 Infringement notice offence	Column 2 Infringement notice fine (penalty units)
s 2D(1)	10
s 2E	10
s 2F	10
s 2G(2)	10
s 2I(1)	10
s 2J(1)	10
s 2N(1)	4
s 2O(1), (2) or (3)	3
s 2Q(1)	3
s 2V(1)	3
s 2X(2)	3

88 *Public Health Act 2005*, section 377 (Appointment)

Authorised person for service of infringement notices—an authorised person appointed under the *Public Health Act 2005*, section 377[89]'.

ENDNOTES

1 Made by the Governor in Council on . . .
2 Notified in the gazette on . . .
3 Laid before the Legislative Assembly on . . .
4 The administering agency is the Department of Health.

89 *Public Health Act 2005*, section 377 (Appointment)

ENDNOTES

1 Laid before the Legislative Assembly on . . .

2 The administering agency is the Department of Health.