

# ***Public Health (Water Risk Management) Amendment Act 2016 – An overview***

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# Legionellosis



**Pontiac Fever: Mild, flu like, self-limiting.**

([http://www.cdc.gov/legionella/images/header\\_vp3.jpg](http://www.cdc.gov/legionella/images/header_vp3.jpg))



**Legionnaires' Disease: Pneumonia, requiring hospitalisation and antibiotics, can be fatal.**

(<http://www.cdc.gov/legionella/images/photo-sick-woman.jpg>)



## Complications

- Respiratory failure
- Septic shock
- Acute kidney failure

## Sequelae

- Fatigue
- Joint pain
- Muscle weakness
- Persistent cough
- Shortness of breath
- Difficulties with concentration

# Notified cases of Legionellosis

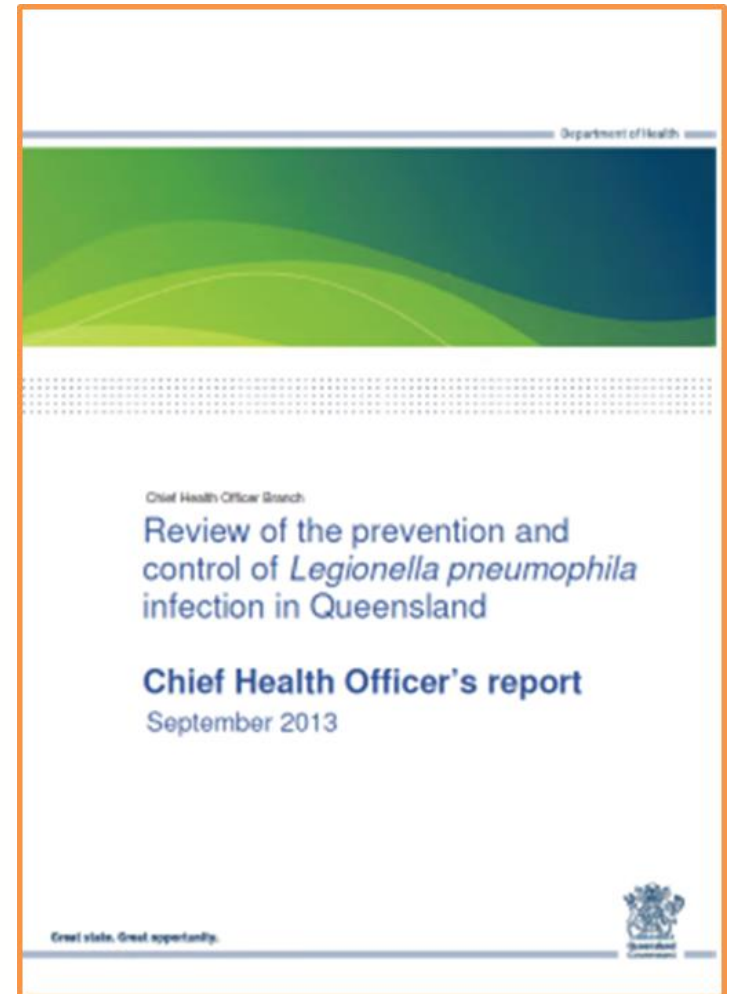
## (Queensland 2011-2015)

	2011	2012	2013	2014	2015
<i>Legionella longbeachae</i>	21	41	45	18	39
<i>Legionella pneumophila</i>	24	22	73	45	37
Legionellosis (other and unspecified)	1	7	46	30	4
Total	46	70	164	93	80

(Source: Queensland Notifiable Conditions reports. Updated 9 Feb 2016)

# History

- September 2013: The Chief Health Officer's report on *Legionella* recommended amendments to the *Public Health Act 2005*
- Interim and medium term legislative requirements for water risk management plans
- March 2016: Public Health (Water Risk Management) Amendment Bill 2016 introduced to Legislative Assembly
- Passed May 2016, received Royal Assent June 2016

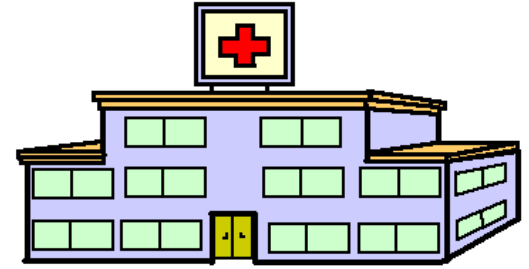


# Aims

- To improve the management and control of health risks associated with the supply and use of water in hospitals and residential aged care facilities.
- In particular the health risks associated with *Legionella* bacteria.
- The amendments give effect to the Government's commitment to greater public transparency regarding water testing being undertaken by facilities to detect *Legionella* bacteria.



# Coverage



- The requirements will apply initially to
  - public hospitals with inpatients,
  - public residential aged care facilities, and
  - all private health facilities licensed under the *Private Health Facilities Act 1999*.
- The requirements will be extended to private residential aged care facilities following consultation with the sector.



# Requirements

- There are four key requirements in the act:
  1. To have a water risk management plan for each facility
  2. To comply with the water risk management plan
  3. To notify the chief executive, within one business day, when *Legionella* is detected
  4. To submit periodic reports summarising the results of tests for *Legionella*





# Non-*Legionella* risks

- Chemical risks
  - Metals (lead, copper, zinc)
  - Organics
  - Chlorine, disinfection by-products
- Microbial risks
  - *E. coli* (for non-chlorinated supplies)
  - *Mycobacterium*, *Naegleria*, *Pseudomonas*, *Burkholderia*
- Physical hazards
  - turbidity, ingress, loss of supply
- All water sources





# Water risk management plans

- A water risk management plan must:
  1. describe the prescribed facility's water distribution system,
  2. identify hazards, hazard sources and hazardous events,
  3. assess the risks associated with hazards, hazard sources and hazardous events (incl. interruptions to the supply of safe drinking water to the facility),
  4. document the controls employed to manage the risks,
  5. document the procedures for monitoring the controls,

# Water risk management plans

6. contain a schedule for testing for *Legionella* and other identified hazards at a frequency informed by the risks, the controls implemented, and the monitoring of controls,
7. document the way monitoring and test results will be recorded,
8. contain procedures for responding to:
  - a) monitoring results that indicate a control has failed
  - b) test results indicating the presence of a hazard,
9. include the frequency at which the WRMP will be reviewed,
10. include any other requirement prescribed by regulation.

# Notification and reporting

- The DoH must be notified, within one business day, when *Legionella* has been detected in water used by the facility.
- Quarterly reports must be submitted to the DoH, summarising the results of tests for *Legionella*.
- Quarterly reports will be published on the DoH's website.
- Act contains a number of offences and provides certain powers to the chief executive and authorised persons.



# Accountability

- Accountability for ensuring each facility has, and complies with, a WRMP rests with the 'responsible person'
- Responsible person is defined in *The Act* for each category of facility
- Penalties for failure to comply with *The Act*
  - 1000 penalty units if false or misleading
  - 200 penalty units otherwise



# What isn't required

- *The Act* does not specify the frequency of monitoring required.
- *The Act* does not specify the number of samples that should be taken.
- *The Act* does not require any specific measures to be adopted by any or all facilities.
- *The Act* does not call up any guideline as a standard.

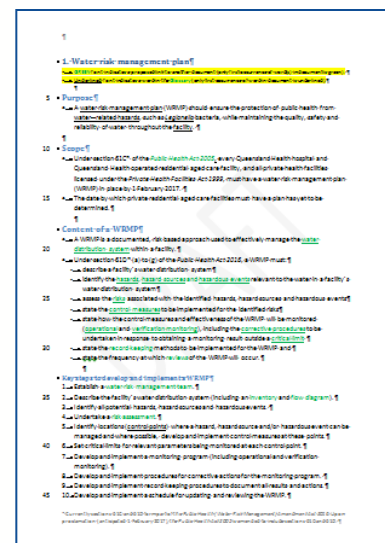
# Guidelines and Support

- Legislative requirements modelled on enHealth's 'Guidelines for Legionella Control' (2015).
- QH 2013 Guideline will be recalled.
- International Guidelines:
  - ASHRAE
  - US Dept of Veterans Affairs
  - UK Code of Practice and Guidance
  - WHO.



# Regulatory support tools

- DoH, in conjunction with experienced consultants, is currently preparing a suite of regulatory support tools to assist operators/managers of prescribed facilities develop appropriate WRMPs.
- These documents will build on existing guidance documents (e.g. enHealth's 'Guidelines for *Legionella* Control').
- These documents will be made publicly available on the DoH's website
- Will include a separate online notification and reporting tool (also currently in development)





# Regulatory support tools

## 1. Developing a water risk management plan

- ❖ Examples include: Water Risk Management Plan; Water Risk Management Team; Water Distribution System; Hazard, Hazard Source and Hazardous Event Identification; Risk Assessment; Control Measures; Critical Limits etc...

## 2. Implementing a water risk management plan

- ❖ Examples include: Operational Monitoring; Corrective Procedures; Verification Monitoring; Record Keeping; Monitoring Temperature; Monitoring Disinfection Residual; Monitoring Stagnation Control etc...

## 3. Remediation

- ❖ Examples include: Flushing – routine; Flushing – remedial (operational exceedance); Flushing – remedial (*Legionella* detection); Chlorine dosing; Superchlorination; Thermal Clean (Pasteurisation); Chemical clean etc...

## 4. External resources

- ❖ Includes links to existing guidelines and other resources related to water risk management and *Legionella* control.

# Today's Workshop

- Implications for agencies responsible for the *Plumbing and Drainage Act 2002* & its regulations
- Role of Plumbing Inspectors in the approval process for water systems in hospitals and health care facilities
- How health protection (or disease prevention) is incorporated into plumbing decisions
- Specific Issues:
  - TMVs, Warm Water Systems, on-site chemical dosing

# Further Information

- Water Unit's online bibliography
  - <http://www.citeulike.org/user/wqunit/tag/legionella>
- Legislative amendment
  - <https://www.legislation.qld.gov.au/LEGISLTN/ACTS/2016/16AC033.pdf>
- Queensland Health's *Legionella* pages
  - <http://www.qld.gov.au/health/conditions/all/prevention/legionnaires-prevention/index.html>
  - <https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/diseases-infection/diseases/legionnaires/default.asp>

# Questions?

