

**SUBMISSIONS FOR STATE OF QUEENSLAND**

04 APRIL 2011

**Queensland Health****(QH)****A. The preparation and planning by federal, state and local governments; emergency services and the community for the 2010/2011 floods in Queensland**

Submission 1 provides details of Queensland Health's contribution to and coordination with the state and local government emergency services. Additional information on the Australian Health Protection Committee (AHPC) and Queensland Health Health Service District, Divisional and public health preparation and planning arrangements is provided below.

**Australian Health Protection Committee**

Queensland Health Chief Health Officer (CHO) participates in the Australian Department of Health and Ageing (DoHA) convened AHPC which is the peak emergency health policy group. A significant part of AHPC work is responding to national and international public health incidents and emergencies.

The AHPC has CHO membership from all Australian States and Territories, DoHA, Australian Defence Force, the New Zealand Ministry of Health, the Australian Council of Ambulance Authorities, and Emergency Management Australia. Information on the AHPC is located at: <http://www.nphp.gov.au/> and also at: <http://www.ahmac.gov.au/site/membership.aspx#other>

The AHPC role is to provide high quality advice to the Australian Health Ministers' Advisory Committee (AHMAC).

One of the AHPC's key roles is to provide national coordination in Australia's health

response to disasters, incidents and public health emergencies. In 2008-09, the AHPC responded to more events of greater intensity in any one year since its establishment, some of which have required ongoing, intense and broad-reaching responses. The AHPC responded to:

- Pandemic (H1N1) 2009;
- Explosion of a vessel on Ashmore Reef;
- Bushfires in Victoria;
- Concurrent events in late January 2009, including:
  - Bushfires in NSW, Victoria and Tasmania;
  - Tropical cyclones Dominic (Western Australia) and Ellie (Queensland); and
  - Extensive flooding in parts of Queensland.

(Source: Australian Health Protection Committee Annual Report to AHMAC 2008-2009).

### **Australian Health Protection Committee Sub-Committees**

The AHPC's work is supported by the work of its subcommittees as listed below. The AHPC provides national leadership for its subcommittees and working groups, including a line of decision making to AHMAC for the subcommittees. Queensland Health representation to the sub-Committees is also provided below.

- **Communicable Disease Network Australia (CDNA)**  
Senior Director, Communicable Diseases Branch, Division of the CHO.

The CDNA provides national public health leadership and coordination on communicable disease surveillance, prevention and control, and offers strategic advice to governments and other key bodies on public health actions to minimise the impact of communicable diseases in Australia and the region.

The CDNA provided advice to the AHPC on the development of various guidelines to support Australia's response to the Pandemic (H1N1) 2009.

- **Environmental Health Committee (enHealth)**

Executive Director, Health Protection Directorate, Division of the CHO.

The environmental health workforce is a critical element in Australia's emergency management arrangements. In 2008-09, enHealth commenced implementation of the National Environmental Health Workforce Action Plan, to 'address environmental health workforce shortages particularly in local government.'

enHealth represents AHMAC on numerous national policy committees, such as those convened on behalf of the Environment, Protection and Heritage Council; the National Health and Medical Research Council; Water Quality Research Australia; and the National Water Commission.

- **Public Health Laboratory Network (PHLN)**

State Director of Microbiology, Pathology Queensland, Clinical and Statewide Services Division, Queensland Health

Chief Scientist, Bacteriology, Queensland Health Forensic and Scientific Services, Clinical and Statewide Services Division and current Chair of the PHLN.

The PHLN provides strategic advice and expertise to enhance the national capacity for the laboratory based detection and surveillance of agents and vectors of communicable diseases in Australia.

PHLN coordinated and supported the public health laboratory response to Pandemic (H1N1) 2009.

PHLN members contribute substantially to the Australian (Counter) Bioterrorism Laboratory Network (ABLN) and CDNA Case Definitions Working Group and maintain a network of linkages with other relevant committees.

- **Health All Hazards Working Group (HAHWG)**

Director, Emergency Management Unit, Division of the CHO.

The HAHWG was established in 2008-09 to make recommendations to the AHPC on the operational aspects of domestic and international disaster medicine and health emergency management in an all hazards context with a focus on preparedness and response in the Prevention, Preparedness, Response and Recovery paradigm (PPRR).

The HAHWG is working on national health arrangements for responses to disasters, has made progress with the implementation of Australian Medical Assistance Teams (AUSMATs) and has committed to assist with the review of the Health Disaster Medicine Manual.

### **Australian Health Protection Committee Strategic Work Plan 2009-2012**

The AHPC Strategic Work Plan recognises that AHPC will operate within an all hazards environment using a PPRR framework as reflected in the Australian Health Protection Committee Strategic Work Plan 2009–2012.

### **Queensland Health Division and Health Service Districts Arrangements**

The *Queensland Health Disaster Plan 2008* is based on an all-hazards, multi-agency, and comprehensive approach to emergency management. The Plan incorporates an Incident Management System (IMS) methodology across the key elements of agency emergency preparedness, response capability and business continuity management (EPCM).

The Queensland Health Emergency Preparedness and Continuity Management Policy 28028 2006 outlines the responsibilities within the department under eight principles. All key resources, infrastructure, tasks and responsibilities, required to support the critical business functions if an event occurs will be documented through the development and implementation of key risk treatment plans for:

- Information Security and Disaster Recovery;

- Internal Emergency Response and General Security;
- External Emergency Response; and
- Business Continuity.

Under the Queensland Health Emergency Preparedness and Continuity Management Policy, all employees, clients and stakeholders are to be aware of the Queensland Health emergency preparedness and continuity management arrangements, where appropriate through training, awareness and testing of the plans.

At each level of the Department including within Divisions (where relevant) and Health Service Districts (HSDs), a range of disaster response and emergency management plans and manuals are in place to guide responses in the event of and recovery from an incident.

Documents include Emergency Preparedness and Continuity Management Plans, Incident Management Guidelines, Emergency Procedure and Preparedness Manuals, Emergency Response Manuals, Chemical Biological and Radiological Management Plans and Fire and Evacuation Plans.

### **Public Health Preparedness**

The responsibility to effectively manage a diverse range of public health threats that may impact on Queensland communities is a core component of the Department's Health Protection Program (HPP). Most recently, responses included the multiple public health incidents that occurred as a result of the Summer Flood Event 2010-2011 and Tropical Cyclone (TC) Yasi.

As outlined in the Queensland Health, Health Protection Strategic Directions 2010-2013, an integrated, scaleable incident management system that supports incident and disaster response arrangements for Queensland Health and whole-of-government is being implemented to manage public emergencies and incident management.

Important components of such a response include ongoing participation in District

Disaster Management Groups (DDMG) and Regional Managers Committees, public health technical response during a disaster and deployment of public health officers to the AusMAT-Q teams.

During Summer 2010-2011, the Health Protection Incident and Disaster Management Committee provided leadership for preparedness and response activities including:

- A storm planning workshop for south east Queensland on 22 November 2010;
- A briefing to senior managers and team leaders across the HPP on the new Queensland disaster management arrangements on 16 December 2010;
- Liaison with the South East Queensland Water Grid Manager immediately prior to the flood on Tuesday 11 January 2011 to ensure that a liaison officer was placed in the Water Grid emergency operations centre; and
- An urgent briefing on 11 January 2011 to update senior managers and team leaders within the HPP on the latest information on the Summer Flood Event 2010-2011 and to confirm the establishment of the public health arrangements for the Brisbane component of the flood.

These arrangements contributed to the management of high level water quality events in Brisbane and assisted rapid assimilation of information to inform decision making during the event and recovery.

## **B. The performance of private insurers in meeting their claims responsibilities**

### **Insurance of Queensland Health Assets**

In the event of a natural disaster Queensland Health being an entity of the State of Queensland is eligible to claim funding from the Queensland Natural Disaster Relief and Recovery Arrangements (NDRRA) for damage sustained to public buildings and assets.

Where damage has been sustained to buildings and assets which do not meet the criteria of the NDRRA, the Queensland Government Insurance Fund (QGIF) will

respond in accordance with the terms of the policy.

### **Mental Health Impacts**

The performance of private insurers may have broader health impacts on the communities in Queensland. The social and emotional impacts of natural disasters can also result in significant economic impacts; including worker absenteeism and productivity declines associated with mental ill health stemming from the disasters.

Individuals who are uninsured, are underinsured or have their claims rejected by private insurers will escalate this situation. There may also be exacerbation of a range of other health conditions and potential for presentations to emergency departments and general practice surgeries should home owners undertake their own repairs.

The WHO's Guidance for health sector assessment to support the post disaster recovery process, version 2.2, 17 December 2010, estimates that the prevalence of severe mental disorders following a natural disaster increases by one percent of the affected population, and the prevalence of mild to moderate mental disorders increases by five to ten percent.

Those who experience ongoing hardship and disruption following a disaster, such as those who are left homeless or unemployed, are at particular risk of experiencing more severe emotional symptoms.

During the summer of 2010-2011, 1.3 million Queenslanders were affected by floods and cyclones in 68 of the state's 73 Local Government Areas. Evidence suggests that 20 to 25 percent of people affected by natural disasters, or up to 314,000 Queenslanders, are vulnerable to experiencing varying degrees of emotional distress as a result of the event.

Queensland Health is a member of the Human and Social sub-committee – one of six sub-committees constituted under the Queensland Reconstruction Authority (QLDRA) and focused on different elements of the recovery and reconstruction effort.

The Queensland Mental Health Natural Disaster Recovery Plan 2011-2013 is being developed to coordinate the delivery of integrated and targeted mental health recovery services. Implementation of the plan will be overseen by Queensland Health and the Department of Communities and will engage key stakeholders through the Human and Social Recovery Sub-Committee. Queensland Health has allocated a non-recurrent budget of \$1.2 million during the remainder of 2010-2011 for the delivery of key elements of the Recovery Plan.

Preliminary modelling of resource requirements for post-disaster specialist mental health services in Queensland is being undertaken by the Queensland Government.

### **Environmental Health Impact of Un-repaired Homes and Businesses**

This is the responsibility of Local Government Councils. However Queensland Health PHUs would provide support to local councils as requested or respond to community queries working in partnership with the Local Council.

### **C. All aspects of the response to the 2010/2011 flood events, particularly measures taken to inform the community and measures to protect life and private and public property (including immediate management, response and recovery; resourcing, overall coordination and deployment of personnel and equipment; adequacy of equipment and communications systems; and the adequacy of the community's response)**

The floods posed significant challenges for the delivery of Queensland Health corporate functions, public health and community and hospital health services. The following impacts expand on responses raised in Submission 1 to the Inquiry.

Staff were evacuated from the following leased buildings:

- The Division of the CHO and the Metro North HSD Executive Office from 15 Butterfield Street, Herston; and
- Several corporate Divisions from the Queensland Health Building in Charlotte



Street, Brisbane City.

Essential staff and services were relocated immediately and other staff and services resumed as soon as the buildings were approved for re-entry.

Alternative arrangements were required to house the Queensland Health State Health Emergency Coordination Centre (SHECC) at the Princess Alexandra Hospital on two hours notice when Butterfield St was closed and the Queensland Health Building in Charlotte Street was also under threat of flooding to the basement and loss of essential services to the City.

The Public Health Emergency Operations Centre (PHEOC) was relocated to the Brisbane North PHU from 12 to 14 January 2011 whilst the Butterfield Street office was inaccessible due to flooding.

A number of south east Queensland Health facilities which were evacuated during the floods are leased from private landlords and managed by the Department of Public Works which manages property leases on behalf of Government. Public Works therefore liaised with the landlords to ensure that the buildings were restored to full function and staff were able to resume duties.

### **Retrieval Services Queensland**

Retrieval Services Queensland (RSQ) provides Statewide clinical and operational leadership and governance structure for Queensland Health's specialised and contracted retrieval services and aeromedical transport providers.

RSQ Standard Operating Procedures 1-13 provide guidelines for maintaining safety and quality, roles and responsibilities for provision of services, delivery of clinical services, operation of fixed and rotary wing aeromedical services, activation of statewide clinical coordination services, minimum standards for patient transport, and major incident notifications and management.

The Summer Flood Event 2010-2011 raised significant challenges to the provision of aeromedical cover to the flood affected communities whilst maintaining retrieval services to the unaffected areas of Queensland. The Queensland Emergency Medical System Coordination Centre (QCC) located in Brisbane and Townsville was directly involved in the clinical coordination, tasking and tracking of Emergency Medical System (EMS) aircraft in response to 000 calls and inter-facility transfers in affected areas.

When the closure of Rockhampton Airport for a prolonged period placed significant strain on the Emergency Helicopter Network, alternative patient staging facilities such as the Tactical Medical Facilities at Gladstone Airport and Goondiwindi allowed maintenance of patient flows to Brisbane from these areas.

Although evacuation of multiple stretcher patients from nursing homes and hospitals significantly stretched resources, transfers were completed successfully without any adverse patient outcomes. The Goondiwindi evacuation was completed within a short time frame with much of the evacuation conducted at night.

### **Public Health**

The public health response to the Summer Flood Event 2010-2011 occurred within a complex organisational environment, and involved multiple agencies, legislative accountabilities and significant public and media scrutiny. The HPP must function within an emergency management system to be able to manage public health incidents and disasters as they arise.

Industry compliance with the regulatory requirements during the event was often ensured by working in partnership with state agencies and devolving operational regulatory responsibilities to local governments.

This shared responsibility of protecting the health of Queenslanders included collaboration with Local Governments; Safe Food Production Queensland; Queensland Government Departments including Department of Employment,

Economic Development and Innovation (DEEDI); Department of Environment and Resource Management (DERM) and the Department of Education and Training (DET); South East Queensland Water Grid Manager; DoHA; Australian Defence Forces; and enHealth.

### **Public Health Response**

The public health response commenced on 27 December 2010 and a PHEOC was established in Brisbane from 11 January to 2 February 2011, at Butterfield Street Herston for most of that time. Site commanders were appointed in each PHU – Darling Downs, West Moreton, Brisbane North, Brisbane South, Sunshine Coast, Wide Bay and Central Queensland.

The PHEOC developed the Public Health Response and Recovery Plan for Summer Flood Event 2010-2011 which was approved on 24 January 2011 and detailed the role of public health policy units and PHUs in monitoring and mitigating public health risk in key areas of the public health response.

The PHEOC coordinated numerous public health responses through a network of officers in PHUs who maintained close working relationships with Local Government and disaster management groups at all levels.

The deployment of 42 Environmental Health Officers and Vector Control Officers to five local Councils supported their operations. Staff were deployed from PHUs, State government departments, unaffected Councils, and the Australian Defence Forces. Teams supporting the flood events were withdrawn from areas of operation by 2 February 2011. However the PHEOC was then reactivated for the TC Yasi response.

### **Food Safety**

Queensland Health is responsible for maintaining the integrity of the food regulatory system, in line with the national food regulation system and Queensland's commitments under the Food Regulation Agreement (amended 2008). This includes working as part of a multi-agency integrated food regulatory system and leading the monitoring, enforcement and implementation of food regulation.

During the Summer Flood Event 2010 – 2011, public health provided advice on maintaining safe food supply in flood-affected areas. Key issues addressed were:

- The health risks of raw milk supply to flood-affected communities where pasteurisation facilities were not accessible;
- The identification and referral to local government management of:
  - A dried foods supplier confirmed to be washing packets of flood-affected food;
  - Appropriate disposal of large quantities of decomposing meat and seafood from storage facilities without electricity;
  - Advice to local government on possible ponding of water in cross beams of some industrial food storage racking systems, potentially affecting structures;
  - A fact sheet containing food safety advice for flood-affected businesses and home owners with flood-affected vegetable gardens; and
  - Advice for managing safe drinking water supply via water tankers.

Queensland Health met with the DEEDI, Safe Food Queensland and DERM and representatives of the Queensland's commercial fishing industry commencing on 21 January 2011 to discuss management of public health issues in Moreton Bay.

An advisory was issued against fishing and crabbing in the affected areas until testing showed contamination had cleared. All oyster beds in Moreton Bay were closed by DEEDI on 21 January 2011 and were subsequently opened and/or closed as deemed appropriate in each location. Sediment surveys conducted by DEEDI and DERM have since enabled the fishing industry's voluntary stoppage to be lifted in some parts of Moreton Bay.

### **Vector Control**

During the Summer Flood Event 2010 – 2011, temporary prevention and control programs for mosquitoes were authorised and approved for the Bundaberg and Fraser Coast Regional Councils under the *Public Health Act 2005*. These programs enabled access to treat large bodies of water where necessary and ceased on 25 February 2011.

Guidelines for controlling public health risks relating to mosquitoes, flies and black flies in a flood event were endorsed on 1 February 2011 as a guide to Queensland Health and local government.

Continuing mosquito surveillance activities reveal low numbers of mosquito larvae and adult mosquitoes in flood-affected areas. There is ongoing monitoring of mosquito borne diseases, with a small increase in Barmah Forrest virus infection observed (compared to the same period for the last five years), particularly in Rockhampton PHU area.

### **Vaccinations**

Ongoing supply of vaccinations was maintained during the flood events as stocks ran low and storage standards were monitored with several breaches of the cold chain supply identified and rectified across flood affected areas.

The mobile vaccination service established in Brisbane and Ipswich (from 16 January 2011 to 30 January 2011) initially provided tetanus (ADT) vaccinations only, but subsequently also provided tetanus and pertussis vaccinations (dTpa) for primary carers and adults living in a home with an infant six months of age or less.

These mobile clinics later provided primary health care and human social recovery support services to flood-affected communities and at this stage were coordinated by the Human Social Incident Management Team.

### **Management of Waste and Other Hazardous Materials**

Responses to health risks and health impacts associated with environmental hazards including advice on appropriate protective measures were outlined in Submission 1.

Further responses included:

- Provision of advice to local councils on the management of mould in green waste and mulch;
- Requesting the Queensland Fire and Rescue Service (QFRS) to make their hazardous materials fact sheet available on the web;

- Disposal of flood-affected drugs and poisons from pharmacies and other premises in flood-affected areas, including inspections;
- A public health advisory on the use of playground and sporting fields during flood recovery; and
- Advice to Education Queensland on soil assessments of flood inundated school playgrounds in the Brisbane, Ipswich and Gympie areas, undertaken by Parsons Brinckerhoff Australia Pty Ltd.

Queensland Health supported the recommendations of the above report regarding unrestricted use of school play grounds that have *E. coli* concentrations below the accepted assessment criterion, and action to be taken by schools where the *E. coli* assessment criterion is exceeded to minimise potential health risks.

### **Radiation Health**

During the Summer Flood Event 2010-2011, the Radiation Health Unit contacted all 295 radiation source possession licensees in Queensland to determine the status of their sources. Nine radiation stores were reported as affected by flood, of which 2 were severely damaged and require replacing. These sources are currently safely and securely stored in temporary locations. While several radioactive sources were inundated, there was no damage or other issue and all sources remain safe and secure.

Integrity of Queensland's radioactive waste store near Esk was ensured and diesel generators refuelled by officers from Radiation Health with the assistance of the Australian Defence Force when access roads were damaged. The electricity supply and road access to the store was restored, allowing a return to normal operations.

### **Communicable Diseases**

Queensland Health undertook additional surveillance for flood-related diseases/ conditions at the local government and statewide level. There have been 46 confirmed cases of the water-borne bacterial disease leptospirosis in flood affected areas between 1 January 2011 and 8 March 2011 (84 across Queensland in total). Advice was provided to the public on leptospirosis and Public Health Alerts were sent

to general practices and Emergency Departments regarding increased incidence and appropriate treatment of cases.

Following public concern, Queensland Health provided a public health alert to general practitioners to be aware of the clinical presentation of melioidosis. All seven confirmed cases of melioidosis in Queensland this year up to 23 February 2011 were acquired in north Queensland or interstate and none were associated with floodwater exposure.

Surveillance of a range of notifiable food-borne diseases (including salmonellosis) and vector-borne diseases (including Barmah Forest virus infection and Ross River virus infection) was also undertaken. There was no increase in food-borne diseases over the period compared with previous years, which would indicate that the public took note of the health notices about discarding unrefrigerated items.

Only one minor, localised cluster (<10 notifications) of Ross River virus infection was detected in Theodore, and this was promptly followed-up with the local Public Health Unit and local government. The lack of any increase in widespread vector-borne diseases is likely attributable to the collaborative work on mosquito control.

Queensland Health has noted approximately 15 wound infections due to *Aeromonas hydrophila* that presented to Brisbane and south east Queensland public hospitals around the time of the flooding. This is an increase from the few cases seen in the same period in previous years. This infection is not a notifiable condition therefore data is limited to testing of patients who presented to public hospitals.

*Aeromonas hydrophila* is naturally occurring in warm, brackish water (eg estuarine) and is the most common cause of wound infections during floods, and in some cases can result in a blood stream infection. It also causes self-limiting gastroenteritis if ingested. *Aeromonas hydrophila* is sensitive to antibiotics, so is easily treated with appropriate antibiotics.

The increase in the number of wound infections caused by *Aeromonas* is due to the

much higher number of people whose cuts and abrasions were exposed to water during the floods. There was no increase on previous years in the number of people presenting to public hospital with gastroenteritis due to *Aeromonas* during the time of the flooding and this suggests that the public took heed of Queensland Health warnings and did not consume food that had been contaminated with flood water.

In addition to the above communicable diseases, five cases of carbon monoxide poisoning were identified in workers who were working in poorly ventilated spaces in the basements of city building cleaning up after the flood. The issue was referred to Workplace Safety to address and implement remedial actions.

A summary of the results of water borne or flood related infections is attached and marked 'QH-01'.

Challenges to the delivery of public health responses included liaising with several different agencies to deliver a coordinated response; lack of alignment of geographic boundaries of government departments, disaster management systems and QH Health Service Districts made it difficult to manage some aspects of the response; variation in Local Councils' capacity resulted in variable requests for public health assistance; intermittent coverage of mobile phones networks and power outages in some areas impacted on effective communication; and difficulty in travelling to some areas due to flooding of roads.

### **HSDs and Divisions**

Queensland Health's review of the EPCM Policy is scheduled in the Health Coordination Services Strategic Directions 2010-2013. As the SHECC has been activated continuously since 28 December 2010, the review has not commenced yet.

Following an incident, HSDs and Divisions conduct a debrief of their responses and review their current Disaster Management Plans and Emergency Preparedness and Continuity Management plans and procedures. The procedures for such assessments are outlined in the Incident Management Standard Operating Procedures 3 - Debrief.



HSDs and Divisions conduct regular assessments of the risk to their facilities from emergencies. As an example, Rosemount Campus was identified as a risk when Metro North Royal Brisbane and Women's Hospital assessed facilities for flood risk. As mental health patients live in the facility, a specific flood evacuation plan was developed for Rosemount.

In spite of difficulties experienced in delivering services to flood affected regions and community members, preliminary debriefs indicate that the south east Queensland HSDs maintained core services at all times and rapidly returned to full services at the first opportunity.

Challenges included increased pressure on emergency departments in an environment of limited transport options and general practice services; availability of beds for clients evacuated from other hospitals and aged care facilities; lack of necessary equipment and the need to 'make do in the field'; and managing fatigue among staff.

#### **D. The measures to manage the supply of essential services such as power, water and communications during the 2010/2011 flood events**

Queensland Health follows the Australian Health Facility Guidelines (AusHFG) which references the NSW, Victorian and WA Engineering Guidelines for the supply and provision of essential services. Queensland Health does not have specific policy documents regarding the management and supply of essential services.

However each District has a building engineering and disaster management plan which provides strategies to ensure essential services are maintained in a facility in the event of a disaster. The AusHFG are an initiative of the Australasian Health Infrastructure Alliance (AHIA) (formerly HCAMC). The guidelines are available at: <http://www.healthfacilityguidelines.com.au/>

The AusHFG enables health facilities throughout Australasia to use a common set of base elements as a guide and offers significant benefits including:

- Australasian best practice approach to health facility planning;
- Standard spatial components; and
- A highly flexible planning tool responsive to the dynamic changes in Health.

### **Maintaining Queensland Health's Information Management Services**

Information Division (ID) responded to the flood crisis and maintained information communication and technology (ICT) services as issues arose. There was a significant interruption to internal ID business operations arising from the flooding threat to the Citilink building at Herston and the subsequent three (3) day shutdown of ID office accommodation in the Fortitude Valley precinct.

### **ICT Issues Affecting Broader Queensland Health Operations**

When several Queensland Health occupied buildings were decommissioned due to flooding, ID relocated servers to other unaffected facilities where possible. In all cases when power was reconnected to affected sites and buildings recommissioned the ICT facilities were then reconnected.

Other significant support included establishing alternative ICT facilities for senior executives including:

- Temporary facilities for the Office of the Director-General at Gregory Terrace, Spring Hill and the Princess Alexandra Hospital; and
- A temporary facility for SHECC at the Princess Alexandra Hospital including the Human Social Recovery Incident Management team who relocated from Butterfield Street offices when that building was evacuated.

Alternative location of the Charlotte Street Enterprise Data Centre (EDC) was activated at RBWH to ensure critical email functionality was maintained for key users from the Queensland Health Building in Charlotte Street. An incident room was set up and extra shifts arranged in the event of a shut down of the EDC.

The facility managers (Fujitsu) of the second EDC at Eight Mile Plains were contacted and arrangements made for an on-site physical inspection based on the

nature of the predicted flood levels and paths, to provide assurance that key equipment was not at high risk of inundation.

Kits including laptop, WWAN (Wireless Wide Area Network) and security token were created for operations staff to manage the EDC remotely in the event that the RBWH site was compromised. The Information Service Centre provided extended first line ICT support to include the weekend and staff support via the Payroll Hotline.

Establishment of these temporary facilities involved sourcing additional equipment and the supply, cabling, installation and configuration of end user devices, servers and network equipment as required.

### **Health Service Districts**

All HSD facilities must maintain accreditation which includes emergency and disaster management and supply of essential services. As an example, the Australian Council Healthcare Standards accreditation process is robust and each facility or service must achieve at least an MA rating in standard 3.2.4 (emergency and disaster management support safe practice and a safe environment).

An MA Moderate Achievement rating requires that all the elements of lower ratings have been achieved and that efficient systems in collecting relevant outcome data, monitoring, evaluation procedures and methods of improvement are in place.

All facilities must also meet the requirement to have Alert Codes in place for each type of emergency response. The Alert Codes are Codes Yellow: Loss of Essential Services (including Chemical Emergencies); Brown: External Emergency; Black: Emergency Transfer of Switchboard Services to other Facilities; and Orange: Evacuation are of particular relevance during emergency and disaster responses.

Under the above requirements, all Queensland Health facilities have arrangements in place through their building services for the ongoing supply of generators, fuel, water and communication links to maintain essential services during disasters and

emergencies. No generator failures or loss of essential services were experienced in Queensland Health hospitals and facilities supporting essential services, including the SHECC and PHEOC.

The Australian Standard 4083:2010 Australian Standards AS4083 Planning for emergencies - Health Care Facilities 2010 also provides a framework for emergency planning in health facilities to enhance the safety for the occupants whilst recognising the uniqueness of a health care facility.

The Standard utilises an “all hazard” comprehensive approach and contemporary emergency management principles of PPRR.

HSDs conduct numerous training exercises using various training modalities from desk top to full scale Emergo Train exercises under the Queensland Health Disaster Exercise Management Plan Sept 2008.

Once HSD plans are activated or an exercise conducted, this triggers a subsequent debrief followed by review and adjustment of the plans. All HSDs and Divisions will table their debrief documentation at the Emergency Management Coordinators' Network meeting on 29 March 2011.

## **Public Health**

During the Summer Flood Event 2010-2011, the Queensland Health Water Quality Unit (QHWQU) monitored the status of impacted drinking water and sewage treatment infrastructure closely to ascertain and address arising public health concerns. Queensland Health liaised with drinking water service providers to advise and assist with the implementation of remedial actions as required. In communities where the reticulated water supply was inoperative, advice was provided regarding safe provision of water in tankers and required volumes of bottled water per person for drinking.

Immediately prior to the 2011 flood event impacting Brisbane, the QHWQU deployed

a liaison officer to the South East Queensland Water Grid Manager emergency operations centre to expedite decisions and enable timely information exchange as outlined in Submission 1.

There was no evidence of contamination of drinking water supplies across any flood affected areas in Queensland including the Lockyer Valley area. Although there was an increase in herbicide and pesticide levels of water samples from flood-affected areas, levels were still below Australian Drinking Water Guidelines. Similarly, active management of sewage spills on the Sunshine Coast by the local Council with support from Queensland Health resulted in no public health issues.

The flood event in south east Queensland and associated damage to infrastructure, including failure of sewage treatment plants, resulted in significant contaminants being washed into the Brisbane River, Bremer River and out into Moreton Bay. Under the *Public Health Act 2005*, local government is responsible for management of public health risks from recreational waters.

However, as part of the flood recovery response, Queensland Health was tasked with co-ordinating the monitoring of recreational water for south east Queensland. The CHO advised Councils in south east Queensland in writing to assume that waters of flood affected rivers, the estuaries and coastal areas of south east Queensland were contaminated, with contaminants expected to continue to flow into these areas for a period of up to 12 weeks.

This advice also included a request for all south east Queensland councils to enhance existing water quality monitoring. On 18 February 2011, a meeting was held with DERM, Queensland Health and Brisbane City Council and resulted in the Council agreeing to implement enhanced monitoring during this period.

Other south east Queensland councils have also agreed to consider an enhanced and ongoing regional monitoring program which is now being developed using Healthy Waterways, a non-government agency which is jointly funded by both state and local governments, as a co-ordinating agency.

Queensland Health Forensic and Scientific Services public and environmental health laboratories at Coopers Plains analysed thousands of tests on hundreds of water quality samples in the weeks following the south east Queensland floods and TC Yasi, supporting the Queensland Health and DERM emergency responses.

## **E. Adequacy of forecasts and early warning systems particularly as they related to the flooding events in Toowoomba, and the Lockyer and Brisbane Valleys**

### **Helicopter Tasking**

Concerns have been expressed regarding the extent of higher level co-ordination and prioritisation of tasking requirements for the use of helicopters. Community Helicopter Providers (CHPs) to the recent Summer Floods 2010-2011 events believe that no agency (including the prime agency – Queensland Police Service) seems well placed at present to take on the helicopter tasking role in these critical emergency management situations.

They also feel that police, the DDMGs and LDMGs do not fully understand the extent of the need for access to the helicopter network for emergency response. The current tasking guidelines nominate the QCC as the central coordination agency. However, QCC's focus is on medical tasking only and it is not currently designed for, nor equipped to deal with the overall tasking and co-ordination requirements.

Queensland Health is co-ordinating a review of the responses to the flood events which will include helicopter tasking and input from the CHPs.

### **Darling Downs Public Health Unit**

The Darling Downs PHU at 3 Bell Street, Toowoomba, was directly affected by the flash flooding event on 10 January 2011. As a result, 10 staff lost their motor vehicles and the inundation of flood water into the premises forced an emergency evacuation. The site was re-evacuated the following day, 11 January, because of the risk of flood inundation when East Creek flooded again. Following the event, all staff were offered

counselling and other support services as required.

In spite of these difficulties, essential staff returned to the flood affected building the morning of 11 January 2011 in order to directly respond to the flood in their local area. This team was in response mode for 38 days in order to respond to the unprecedented impact of the floods.

The Darling Downs West Moreton HSD produced a January Flood Fusion newsletter which recognised the commitment and professionalism of staff in responding to the flood events.

### **G. All aspects of land use planning through local and regional planning systems to minimise infrastructure and property impacts from floods**

Queensland Health seeks to ensure that the acquisition of new property does not fall within flood prone areas, in compliance with the State Planning Policy 1/03 'Mitigating the Adverse Impacts of Flood, Bushfire and Landslide' as part of town planning approval processes. Flood searches are undertaken with the local authority, as part of acquisition due diligence investigations, to ensure that land proposed for development will not be affected by Q100 flood events.

The majority of Queensland Health hospitals were able to remain open to provide essential services for evacuated patients and nursing home residents. Water damage to hospitals while inconvenient was minor and was addressed by relocating affected services within the facility such as occurred at Bundaberg, Nambour and Gympie.

#### **Location of Aged Care Residential Facilities**

Aged care residential facilities are frequently included in local disaster management plans coordinated by Emergency Services Queensland. The location of current and proposed nursing homes is subject to DoHA's allocations process and the respective regional council's approval processes.

DoHA's process includes a determination of whether the premises and location are suitably planned as required under the *Aged Care Act 1997* S.14-2(b). Regional DoHA offices may liaise with local government regarding whether or not proposed locations are suitable during their assessment of applications for additional aged care places.

Any discussion regarding the suitability of location of nursing homes across Queensland is therefore most appropriately addressed by DoHA and the local government which provides the building approvals for delivery of aged care services in particular locations.

Queensland Health provides residential aged care services in 20 facilities across Queensland. However the majority of aged care residential services are provided by private operators.

Among the Queensland Health facilities, Waroona at Charleville and Westhaven at Roma are located on flood plains and have been affected by extreme flood events. Neither facility was evacuated during the 2010/2011 flood events.

As indicated previously Queensland Health patient transport and evacuation services evacuated patients from several nursing homes (Theodore, Goondiwindi and St George) during the flood events and relocated them to public and private facilities. Patients from the private Werribee Nursing Home at St George were relocated to the Queensland Health Moreton Bay Nursing Care Unit and the private Churches of Christ Care Moonah Park Aged Care Services at Mitchelton in Brisbane.



**Index of documents attached to**  
**QH**

<b>Exhibit</b>	<b>Description</b>
QH-01	Summary of results of water borne or flood related infections 2008/09 – 2010/11

4 April 2011 Submissions

'QH-01'

**Table 1: Summary of water borne or flood related infections 2008/09 – 2010/11**

	Aeromonas	Leptospirosis	Vibrio spp	Shewanella	Salmonella
2010/11 to March 2011	27 wound 1 sputum 5 stool	18	2 blood	1 wound	26 stool, urine and blood
2009/10	4 wound 1 sputum 2 stool 2 urine	2	1	2 wound	29 stool and blood
2008/09	6 wound 2 blood 5 stool	4	1 tissue	1 wound	35 stool and urine

Source: Pathology Queensland – state run laboratory.

Note that private laboratories may have tested additional individuals (as would happen in any one year).