

# **NORTH BURNETT REGION DISASTER MANAGEMENT PLAN**

## **Sub Plan 6 – Public Health**

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## **Purpose of this Sub Plan**

The purpose of this sub plan is to detail the requirements necessary to mitigate public health risks in times of an emergency/ disaster situation. It outlines the public health response strategy, planning processes and how the efforts of a range of organisations may be harnessed into an efficient, coordinated public health response during disaster events.

## **Maintenance of this Sub Plan**

The Local Disaster Coordinator is responsible for this Sub Plan. Changes to this Sub Plan require the endorsement of the LDMG and the approval of the LDC. This Sub Plan shall be exercised annually.

## **Context**

A disaster event may cause significant disruption to the community and pose a range of risks to public health. Water supplies, sewage treatment, refuse disposal, power supply and access to food may be compromised. This may lead to an increased risk of disease and the situation may continue for some time following the actual disaster event.

The North Burnett Region has limited public health response capabilities and will require support and assistance from a range of agencies and organisations. Planning and coordination of the public health response is required to mitigate and respond to public health risks.

The term Public Health in this Sub Plan includes those matters that may be defined under Environmental Health and all environmental health matters are to be included and considered as part of this plan.

## **Supporting Agencies**

The North Burnett Regional Council is the primary agency responsible for ensuring public health before, during and after a disaster event supported by the LDMG. Council's environmental health staff are responsible for implementing strategies that mitigate public health risks arising from a disaster event. Council staff will work closely with Queensland Health in the development and implementation of disaster related public health programs and activities within the region. The Queensland Health – Wide Bay Public Health Unit, will coordinate the content of public health information during a disaster.

During the planning process, related agencies with an ancillary role in public health that do not have designated responsibility under the disaster management arrangements should be engaged and included in the event-specific Public Health Plan as required.

Related agencies may include:

- Department of Agriculture, Fisheries and Forestry (DAFF)
- Department of Environment and Heritage Protection
- Licensed water carriers
- Licensed food premises
- Safe Food Qld

- Media outlets for the provision of advice to the community
- QFES Chemical Services Unit

Additional local support agencies for public health include:

- Australian Red Cross
- Blue Care
- Meals on Wheels

## **Public Health Response Strategy**

Where possible before disaster impact, the LDMG should direct the North Burnett Regional Council (Environmental Health Services) to commence planning to identify and mitigate possible public health risks that may arise from the event. This will usually involve taking initial action to protect key assets such as power supplies, water and sewerage treatment and refuse management facilities. It will also likely require public health messages to be developed and delivered to the community to assist them in preparing for the event.

Once a disaster event has occurred, the LDMG should direct the North Burnett Regional Council (Environmental Health Services) to develop an Event-specific Public Health Plan.

This plan is to outline the public health risks in the region arising from the disaster event and how they are to be treated. The event-specific plan should address the tasks of all agencies that will contribute to the public health effort and the resources required. It should also detail the public health messages required and how they will be implemented. The plan is to be approved by the LDMG. Council’s Environmental Health staff will develop the plan on behalf of the LDMG.

## **Event-Specific Public Health Planning Process**

The following table outlines the major steps associated with the development of the event specific Public Health plan.

<b>Step</b>	<b>Action</b>	<b>Remarks</b>
<b>Step 1 Before Impact</b>	<p>LDMG directs NBRC Environmental Health Staff to consider likely public health issues that may arise from the impending event.</p> <p>Consideration of key asset protection measures including:</p> <ul style="list-style-type: none"> <li>• Water supplies, water treatment, refuse management and their associated power supplies.</li> </ul> <p>Council Environmental Health staff commence collaboration with relevant agencies including Qld Health.</p> <p>Initial public health messages to the community are developed to assist in their preparations.</p>	LDMG at LEAN FORWARD
<b>Step 2</b>	LDMG directs Council to prepare the event-specific	LDMG at

<p><b>After Impact</b></p>	<p>Public Health Plan.</p> <p>Council Environmental Health Staff collaborate with the Local Disaster Coordination Centre (LDCC) to develop situational awareness of the disaster impact in the region.</p> <p>Council Environmental Health Staff collaborate with the LDCC for inclusion as part of the Event Impact Assessment Plan and allocate staff to mobilise to gather information and data on public health issues arising from the disaster.</p> <p>Collaborate with other agencies as required to coordinate data gathering and immediate responses.</p>	<p>STANDUP</p>
<p><b>Step 3 Document Situation &amp; Undertake Risk Analysis</b></p>	<p>Develop the Situation component of the Event-Specific Public Health Plan</p> <p>Undertake Public Health Risk Analysis:</p> <ul style="list-style-type: none"> <li>• identify public health risks for each element of Public Health. Describe the consequences to the community for each risk if nothing is done.</li> <li>• Establish the priority of effort for each risk</li> <li>• Develop the risk treatment strategies to mitigate identified public health risks</li> </ul>	<p>LDMG at STANDUP</p>
<p><b>STEP 4 Develop Public Health Messages and how they will be implemented</b></p>	<p>Develop public health messages for each public health risk identified in Step 3.</p> <p>Determine the methods and timeframes for delivery of each public health message.</p> <p>Determine the agencies responsible for delivering Public Health messages.</p>	<p>LDMG at STANDUP</p> <p>Collaborate with Qld Health on public health messaging.</p>
<p><b>STEP 5 Develop ACTION PLAN</b></p>	<p>Specify the tasks to be undertaken by each agency/organisation involved in delivering public health outcomes as detailed in the Risk Treatment section of the Risk Analysis.</p> <p>Specify timeframes for all actions.</p> <p>Specify monitoring and reporting arrangements for all agencies with designated tasks.</p> <p>Obtain LDMG approval for the completed plan through the Local Disaster Coordinator (LDC).</p>	<p>Note: the plan is used as a tasking document for all agencies involved in the Public Health effort.</p>
<p><b>Step 6 Implement, Monitor, Update Plan</b></p>	<p>Distribute the plan to all required agencies and organisations as per the distribution list.</p> <p>Monitor the implementation of the plan – seek agency reports on progress as detailed in the plan.</p> <p>Update/amend plan as required maintaining version control. Re-issue as required. Seek LDMG approval for all major changes to the plan.</p>	

Table 1 – Planning Steps – Event Specific Public Health Plan

## **Developing the Event-Specific Public Health Plan**

To assist in developing the Event-specific Public Health Plan, Council Environmental Health staff Officers should work closely with the Local Disaster Coordination Centre and collaborate with multi-disciplinary outreach teams to assess potential public health risks and provide specialist advice to both the LDCC and to the community following a disaster.

The Event-specific Public Health Plan should cover the following:

- Provision of safe and adequate water supply.
- Provision of adequate shelter (evacuation centres).
- Food Safety.
- Emergency ablution and sewerage services.
- Personal hygiene
- Refuse/waste disposal including provision of temporary waste management sites.
- Vermin and Vector Control
- Infectious Disease Control
- Animal control and disposal of dead animals
- Clean Up / Disinfection of buildings
- Animal Management – Wild/wandering Livestock
- Other Environmental health issues

A template for the Event-specific Public Health Plan that includes the above points is provided at Annex A to this Sub Plan.

Considerations for each of the above are included in the following paragraphs.

### **Safe and Adequate Water Supplies**

Issues to be addressed in ensuring the provision of safe and adequate water supplies include:

- Water quality assessment processes.
- Safety and control of supply.
- Bacterial sampling.
- Water source monitoring programs.
- Sources of water and water treatment standards.
- Provision of public advice to boil water as necessary.
- Ensuring adequate water storage capacities.
- Transport and distribution of potable water to those who require it.

The provision of potable water during an emergency is based on the minimum requirement in the North Burnett Regional Council Local Disaster Management Plan of 15 litres per person per day.

Each evacuation centre must be supplied with sufficient potable water. This may be supplied initially on site by mains or storage tank water. The capacity of each centre should be identified in each Town Sub Plan.

Where no potable water is available from mains or tanks at an evacuation centre, water supply may be arranged with designated water carriers. The North Burnett Regional Council licenses water carriers. North Burnett Regional Council Environmental Health Services maintain a list of licensed water carriers.

Bottled water may be used and could be either stored in bulk at each centre or supplied as required by wholesalers or retailers in the locality when the need arises. The larger outlets such as supermarkets should be approached prior to the disaster event to avoid panic buying by arranging limits on public purchasing of bulk water supplies so that adequate supplies are maintained for evacuation centres. Additional bottled water supplies may be requested through the Local Disaster Coordination Centre as required.

Public Health messages should be developed to educate the community on how to adequately treat tank water collected from roofs and stored in tanks on their property. This should include advice on first flush devices, coarse and fine filtration and disinfection strategies. Such public health messages should also provide general advice on chemical disinfection of water using chlorine tablets, including the availability of such tablets.

Public health messages regarding water safety may be delivered via media outlets and brochures/pamphlets on water safety should be made available to evacuation centres, council offices, libraries, schools, shops and other places where the public may gather.

General information and advice should be freely distributed throughout the affected area relating to potential hazards of polluted drinking water supplies and the fire and explosion dangers of using bottled gas to boil water during power outages.

## **Shelter**

Provision of adequate shelter to those affected by a disaster is vital in maintaining public health. Evacuation Centres are the primary means by which shelter (including provision of food, water, appropriate ablution and toilet facilities) are provided to those who have no suitable place of shelter in the community. It is incumbent on those providing evacuation centre services to ensure they provide safe and adequate shelter that contributes and maintains public health.

Evacuation centres may become crowded and standards of personal and collective hygiene, safe water and food supplies are all critical to minimise the risk of disease spreading among evacuees. Any outbreak of illness can spread quickly in the confines of a crowded evacuation centre and will add significantly to the trauma already experienced by those in such centres. An outbreak of illness may also affect staff reducing the capacity of the centre to operate effectively.

Event Specific Public Health Plans should consider public health risks in evacuation centres and ensure that adequate support is provided to evacuation centre staff to ensure maintenance of appropriate standards of food safety, safe water supplies, appropriate ablution facilities, refuse disposal as well as individual and collective hygiene standards.

Regular and routine inspections of evacuation centres should be conducted to ensure adequate standards are maintained. Food donation to evacuation centres should be discouraged to avoid the possibility of contaminated food being ingested by evacuees and evacuation centre staff. Only trusted food suppliers should be used by Evacuation Centres.

The Event-specific Public Health Plan should also consider the management of pets within evacuation centres and should examine measures to deal with animal control and the waste from animals.

A tool to assist Public Health planners in assessing evacuation centres has been developed by Queensland Health. This tool known as the Evacuation Centre Assessment Tool (ECAT) is provided in spreadsheet format and is held by the Council's Environmental Health Staff. It augments the planning tools provided in the Evacuation and Evacuation Centre Management Sub Plan.

Not everyone who has been impacted by a disaster will choose to seek shelter in an evacuation centre. Some people may choose to remain in their homes, which may not be suitable from a public health perspective. Contaminated water supplies, food spoilage and sewerage overflows may affect the health of people who choose not to evacuate to safer areas. Public messaging should focus on such dangers to individual and public health and offer pathways for people in such circumstances to seek appropriate levels of help and support. Where necessary, specific agency support may be required to assist people in evacuating from such circumstances.

## **Food Safety**

Food safety may be compromised as a result of the impact of a disaster event and is usually related to spoilage caused by lack of refrigeration during power outages or poor sanitation and food handling procedures.

North Burnett Regional Council, Environmental Health Services is to identify food suppliers who may be affected by the disaster event and ensure they maintain adequate refrigeration and food handling processes. Consideration should be given to:

- Retail food suppliers – café's, restaurants, etc.
- Institutional food suppliers – hospitals, nursing homes, schools.
- Evacuation Centres – including the provision of donated food by members of the public.

The Event-specific Public Health Plan should seek to implement an increased food safety monitoring program that undertakes inspections of food suppliers (as detailed above) to ensure adequate food handling and storage arrangements are maintained. Any limitations should be identified and rectified where possible.

Spoilt food resulting from lack of refrigeration or stock damaged by the impact of the disaster should be identified and removed to safe areas away from the public. Spoilt food must be removed from public spaces as quickly as possible. This includes food spoilage at retail food suppliers, institutions, evacuation centres and private residences. The event-specific Public Health

Plan should specify the arrangements for removal and management of spoilt food supplies.

The establishment of temporary kitchens and the mass feeding of the public or response workers may be necessary during disaster operations. In many cases these facilities will be provided by specific organisations (service clubs, etc) that maintain high food safety standards. However, routine and regular inspections of such facilities should be considered to ensure public safety.

Public Messages should be developed to advise the community of the arrangements for the removal of spoilt food and how to maintain adequate food safety standards.

Public messaging should also be developed discouraging donations of food to evacuation centres in order to minimise the risk of illness caused by inadequately prepared or spoilt food. Details on the symptoms of food poisoning and the immediate actions required should be widely distributed as part of public health messaging.

## **Emergency Ablution and Sewerage Services**

The event-specific Public Health Plan should consider emergency ablution facilities and matters relating to sewerage services including the public health risks associate with sewerage /sullage overflows.

Emergency ablution facilities may be established to support evacuation centres or to support large concentrations of emergency response workers deployed to respond to the event. They may also be installed to support longer term shelter solutions and to support affected members of the community.

The arrangements for the removal of sullage and sewerage from such temporary sites should be considered including the sanitizing of such assets during and after their use. Onsite disposal of sewerage and sullage must conform to established standards and public health inspections may be required to monitor issues with such facilities.

Sewerage overflows may have public health impacts and the Public Health Plan should address the actions to be taken in the event of such overflows affecting the community.

Public messaging that advises people what actions they should take to minimise public health issues relating to their own septic and sewerage systems should be considered.

Additional resources may be needed to pump out and dispose of sewerage or sullage overflows. Disposal strategies for excess sewerage/sullage should be developed.

## **Personal Hygiene**

Maintaining personal hygiene after a disaster event is often the single most effective strategy that can be applied to minimise the risk of disease and infection. Ensuring affected communities have access to sufficient quantities of appropriate personal hygiene supplies must be a consideration in the



Event-specific Public Health Plan. Additional supplies may need to be obtained through the Local Disaster Coordination Centre.

Public messages about how individuals can maintain appropriate levels of personal hygiene should be developed and distributed. Such public messaging may consider:

- Handwashing and use of sanitizer products including safety advice on their use.
- Treatment of minor cuts and scratches to avoid infection.
- Avoidance of potentially contaminated waters e.g. floodwaters
- Use of Personal Protective Equipment e.g. gloves, waterproof boots, etc.

## **Refuse / Waste Disposal**

Large quantities of waste and refuse may be generated as a result of a disaster situation including Green, Building (including asbestos), Putrescible, Household, and Industrial (including toxic chemicals) waste. These may all pose a threat to public health.

The capacity to remove all this waste as well as the capacity to store it all may be compromised by the disaster event.

The public health plan must address the refuse/waste disposal issues for all the above waste/refuse elements. It should include:

- Identification of emergency or temporary landfill sites (requires EHP approval if flood wastes are involved).
- Collection of refuse/waste (where the public can take different types of waste)
- Transportation of waste (by both council and members of the public)
- Bunding/vermin control/access, etc for temporary landfill sites.

Public messaging that details the arrangements for all of the above should be prepared with early emphasis on management of putrescibles.

Advice on what to do with asbestos from damaged buildings is also a high priority. Generally the advice for asbestos removal is to leave it in place in the home and wait until professional disposal arrangements can be made.

Public messaging should also emphasize what can be accepted at temporary refuse sites and their hours of operation.

## **Vermin and Vector Control**

The event-specific Public Health Plan must include measures for Vermin and Vector control and should at the least cover arrangements and resources necessary to:

- Undertake surveillance to ascertain the extent of the problem.
- Vector identification
- Vermin identification
- Treatment options

The above should be undertaken in accordance with the North Burnett Regional Council's Mosquito Black Fly & Biting Midge Control Plan which was adopted by Council in Nov 2014.

In extreme cases the resources available to Council for vermin/vector control may be overwhelmed. In such cases, support from nearby councils may be necessary. To ensure appropriate approvals are provided to support cost recovery under disaster funding arrangements it is imperative that a formal Council to Council Request for Support be raised by the LDCC and approved by the Local Disaster Coordinator.

## **Infectious Disease Control**

Managing infectious disease outbreaks is vital to maintaining public health after a disaster. Promoting the use of basic personal hygiene within the community remains the primary method of prevention. Public messaging about not swimming in flood waters, staying away from dead animals and using appropriate personal protective equipment should be reinforced throughout the disaster event.

However an outbreak of infectious disease may occur despite these efforts.

The Event-specific Public Health Plan should address the surveillance and reporting of infectious diseases and provide advice on any isolation or separation of infected individuals from susceptible groups. Council's environmental health staff may also be required to assist Qld Health in the control of suspected disease outbreaks.

## **Disposal of Dead Animals**

Disasters may kill livestock and wild animals and the rotting carcasses of these animals may create a public health risk to the community. Large quantities of livestock may be affected particularly where concentrations of animals have been affected e.g. an entire pig farm flooded with all animals swept downstream.

Considerations for the Event-specific Public Health Plan include:

- Selection of appropriate disposal sites
- Method of disposal (burial, cremation)
- Collection, transportation and disposal procedures.

## **Clean Up / Disinfection of Buildings**

Undertaking clean up after a disaster poses a significant risk to public health as large numbers of people (emergency workers, affected individuals) commence moving around the impact zone. Toxic waste, raw sewerage, putrescible waste and toxic bacteria all pose a threat to public health.

The public health plan must identify measures to minimise these risks including establishing standards for personal protective equipment, identification of specific risks and risk areas, and advice on treatment of cuts and scratches, etc to reduce likelihood of infection.

Mould after floods is a major risk area and public messaging should be developed to warn the public about the risks of mould causing lung infections.

Mould may grow on anything that has been affected by floodwaters or hot/humid conditions and may affect all household goods including carpets, rugs, mattresses, wall coverings and curtains. Mouldy hay and stockfeeds may also pose a risk to public health. Workers and emergency responders should be made aware of such risks and be provided with advice on personal protective equipment to be used to reduce exposure.

### **Animal Management – Wild/Wandering Livestock**

Animals, both wild, livestock and pets are often displaced after disaster events. Snakes are often very evident after during and after floods. Livestock may wander due to downed fences and pose a risk to road users. Pets may be lost or homeless after a disaster.

The Event-specific Public Health Plan should consider arrangements for animal management for each of the above categories and should provide for public messages that include:

- What to do with wandering livestock
- Who to contact for assistance with wild animals e.g. snake handlers, animal welfare providers, etc
- What to do with lost or homeless pets.

### **Other Environmental Health Issues**

Disaster events can create other environmental health issues that have not been covered by the above points. Examples include:

- Accumulations of toxic chemicals and waste at river/creek choke points
- Degradation of river/creek beds and banks
- Impact on threatened species
- Spread of noxious weeds

The plan may need to consider additional environmental health issues and provide guidance on how such issues are to be managed and the public messages that need to be developed for them.

### **Public Health Assessment Checklists**

A range of tools and checklists have been developed, or are under development, that assist the Council Environmental Health Staff in undertaking assessments and inspections relating to public health in a disaster. These include:

- Vermin Vector Control Checklist.
- Food Safety Checklist (under development).
- Evacuation Centre Assessment Tool.
- Staff Operational Deployment Checklist (PPE).

These tools/checklists are maintained by the Council's Environmental Health Staff and are included as appropriate at Annex B to this Sub Plan.

## Annex A – Template - Event Specific Public Health Response Plan

The following plan template is to be used for the specific event Public Health Disaster Response Plan. The plan is to be endorsed by the Local Disaster Management Group (LDMG). The plan may be updated at any time and is version controlled. Major changes to the Event Public Health Plan require endorsement by the LDMG.

North Burnett Region – Public Health Disaster Response Plan				
<i>&lt;Event Name&gt;</i>		Version Number: <i>&lt;version&gt;</i>		As At: <i>&lt;date&gt;</i>
Prepared by: <i>&lt;Name and contact details of the person responsible for preparing this plan&gt;</i>				
SITUATION STATEMENT				
<i>&lt;Write a short description of the situation outlining broadly what is known about the impact of the event and the consequences for public/environmental health&gt;</i>				
PUBLIC / ENVIRONMENTAL HEALTH RISK ANALYSIS				
Element of Public Health	Risk Statements <i>&lt;Develop public health risk statements&gt;</i>	Consequences <i>&lt;Detail likely consequences&gt;</i>	Priority <i>&lt;Set Priority of effort&gt;</i>	Risk Treatment Strategies <i>&lt;Define strategies to mitigate risk&gt;</i>
Water				
Shelter				

<b>Food</b>				
<b>Emergency Ablutions &amp; Sewerage</b>				
<b>Refuse Disposal</b>				
<b>Vermin / Vector Control</b>				
<b>Infectious Disease Control</b>				
<b>Personal Hygiene</b>				
<b>Disposal of Dead stock and animals</b>				
<b>Clean up/Disinfection of Buildings?</b>				

<b>Animal Management Wandering Livestock</b>				
<b>Other Environmental Issues</b>				

<b>PUBLIC HEALTH – PUBLIC INFORMATION PLAN</b>			
<b>Public Health Message</b> <i>&lt;Detail Public Health messages to be delivered&gt;</i>	<b>Method of Delivery</b> <i>&lt;Outline how public messages are to be delivered&gt;</i>	<b>Timeframes</b> <i>&lt;Specify timeframes for public messages&gt;</i>	<b>Responsible Agency</b> <i>&lt;Identify who is responsible for developing and delivering public health messages&gt;</i>

<b>PUBLIC HEALTH RESPONSE ACTION PLAN</b>			
<b>Agency</b> <i>&lt;Specify the agency who is to be tasked under this action plan&gt;</i>	<b>Tasks</b> <i>&lt;List the tasks to be undertaken&gt;</i>	<b>Time</b> <i>&lt;Specify the deadline for each task&gt;</i>	<b>Remarks</b> <i>&lt;Outline any additional information such as reporting frameworks, resources required, etc.&gt;</i>

**North Burnett Region Disaster Management – SUB PLAN 6 – Public Health**

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**Distribution**

North Burnett Local Disaster Coordination Centre  
North Burnett Regional Council (Environmental Services)  
Bundaberg Disaster District Coordinator  
<List all agencies and organisations tasked under this plan>

Plan endorsed by the LDMG:

<signature>  
**Local Disaster Coordinator**  
<date>