



# Municipal Public Health Emergency Management Sub Plan

*Insert Council/Shire Name*

Insert Council Logo

**Version No:**.....

**Date:** .....

*(date PHEMPlan adopted by Council)*

## Acknowledgements

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### Disclaimer

The information provided in the EHPA Municipal Public Health Emergency Management Sub Plan is compiled from unique knowledge, experience and as well as various sources and literature and has been solely prepared for the purpose of assisting EHP's in preparing for, mitigating and managing public health risks in an emergency and to provide consistency in application across Victorian municipalities.

While all efforts have been made to ensure content accuracy, EHPA is not responsible for any direct or indirect damage or loss arising from the use of this information and material contained within these guidelines and template.

EHPA reserves the right to make any changes to the guidelines at any time without notice.



## **Appendix K – Checklists for Standard Operating Procedures**

- Checklist for public health risks in an emergency
- Chlorine concentrations required for disinfection
- Public Health survey of damaged premises/affected housing
- Checklist of public health responsibilities in emergency relief centres



## Checklist for public health risks in an emergency

Providing safe and adequate water	Provision of emergency ablution facilities															
<p>Townships affected &amp; source of water supply: Eg: tank, bore, well, reticulated, stream, river</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>Issues to consider before implementing SOPs:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> contaminated private water supplies</li> <li><input type="checkbox"/> water sampling</li> <li><input type="checkbox"/> provisions of information on water treatment</li> <li><input type="checkbox"/> provision of alternative water supply (responsibility of Water Authority)</li> <li><input type="checkbox"/> ensure water cartage vehicles are registered</li> <li><input type="checkbox"/> list of suppliers of bottled water</li> <li><input type="checkbox"/> hygienic storage of water</li> </ul> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	<table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 10%;">Facilities</th> <th style="width: 15%;">Toilets</th> <th style="width: 15%;">Urinals</th> <th style="width: 15%;">Washbasins</th> <th style="width: 15%;">Showers</th> </tr> </thead> <tbody> <tr> <td>Males</td> <td>1 per 20 persons</td> <td>1 per 25 persons</td> <td>1 per 30 persons</td> <td>1 per 35 persons</td> </tr> <tr> <td>Females</td> <td>1 per 15 persons</td> <td>N/A</td> <td>1 per 30 persons</td> <td>1 per 35 persons</td> </tr> </tbody> </table> <p>Calculate the number of facilities (toilets, showers, laundry facilities) for displaced persons:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>Issues to consider before implementing SOPs:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> location of facilities</li> <li><input type="checkbox"/> who is responsible for cleaning and maintenance of facilities?</li> <li><input type="checkbox"/> disposal of waste (may need to liaise with EPA)</li> <li><input type="checkbox"/> are any records being kept?</li> </ul> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	Facilities	Toilets	Urinals	Washbasins	Showers	Males	1 per 20 persons	1 per 25 persons	1 per 30 persons	1 per 35 persons	Females	1 per 15 persons	N/A	1 per 30 persons	1 per 35 persons
Facilities	Toilets	Urinals	Washbasins	Showers												
Males	1 per 20 persons	1 per 25 persons	1 per 30 persons	1 per 35 persons												
Females	1 per 15 persons	N/A	1 per 30 persons	1 per 35 persons												
Food and food related issues	Waste water treatment															
<p>Issues to consider before implementing SOPs:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> food premises affected by emergency</li> <li><input type="checkbox"/> emergency catering at: <ul style="list-style-type: none"> <li><input type="checkbox"/> emergency relief centres</li> <li><input type="checkbox"/> for emergency workers</li> </ul> </li> <li><input type="checkbox"/> donated food</li> <li><input type="checkbox"/> private homes</li> <li><input type="checkbox"/> distribution of information on issues such as: <ul style="list-style-type: none"> <li><input type="checkbox"/> food safety during/following power failure</li> <li><input type="checkbox"/> protecting food from contamination</li> <li><input type="checkbox"/> disposal of spoiled food</li> </ul> </li> <li><input type="checkbox"/> clean up procedures</li> </ul> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>Liaise with the EPA regarding wastewater disposal strategies and to ensure appropriate type of system. Evaluate the use of existing septic tank systems:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> treatment plants</li> <li><input type="checkbox"/> plumbing fixtures</li> <li><input type="checkbox"/> damage to pipe works</li> <li><input type="checkbox"/> disposal area</li> <li><input type="checkbox"/> damage to existing fibreglass systems</li> <li><input type="checkbox"/> availability of reticulated water</li> </ul> <p>.....</p> <p>.....</p> <p>Is community information required? Y/N</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> living in caravans on private property during rebuilding</li> <li><input type="checkbox"/> de-sludging and maintenance of septic tanks</li> <li><input type="checkbox"/> protecting septic tank systems from damage by demolition machinery</li> </ul> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>															



Shelter	Vermin and vector control
<p>Have emergency relief centres been opened? Y/N If yes, implement SOP and utilise checklist. Liaise with MERO/MRM re: opening of new centres. ..... .....</p> <p>Are any private homes affected? Y/N If yes, complete assessments of emergency affected housing using checklist. Provide information regarding clean up, damaged buildings, etc. Method for distribution? ..... ..... ..... ..... .....</p>	<p>Monitor and control breeding and harbourage of vermin and vectors in areas of concern:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> food preparation and storage areas</li> <li><input type="checkbox"/> refuse collection areas</li> <li><input type="checkbox"/> sanitary depots</li> <li><input type="checkbox"/> damaged/destroyed poultry sheds, piggeries and abattoirs</li> <li><input type="checkbox"/> damaged food premises, domestic premises</li> <li><input type="checkbox"/> dead stock/animals</li> <li><input type="checkbox"/> burst sewerage and water pipes</li> <li><input type="checkbox"/> damaged septic tank systems</li> </ul> <p>Is community information required on:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> vector control</li> <li><input type="checkbox"/> personal protection</li> <li><input type="checkbox"/> waste management and vermin control</li> </ul>
Refuse collection and disposal	Infectious disease control
<p>Liaise with municipal engineer and EPA regarding waste management requirements:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> siting of bins/services in community &amp; relief centres</li> <li><input type="checkbox"/> concerns/complaints</li> <li><input type="checkbox"/> commercial premises requirements</li> <li><input type="checkbox"/> providing domestic bins and services</li> <li><input type="checkbox"/> damaged or destroyed bins</li> <li><input type="checkbox"/> keeping of records</li> <li><input type="checkbox"/> alternative disposal sites</li> </ul> <p>..... .....</p> <p>Are there dead animals or stock? Y/N Liaise with municipal rangers and DPI for disposal methods Is community information required on:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> storage and separation of waste prior to collection</li> <li><input type="checkbox"/> disposal of spoilt and damaged food</li> <li><input type="checkbox"/> location and use of additional bins and services provided throughout emergency affected area</li> </ul>	<p>Is there the potential for infectious diseases? Y/N Any concerns regarding infectious disease outbreaks to be notified to DH. Investigate any possible outbreaks in accordance with DH publication '<i>Guidelines for the investigation of gastroenteritis</i>'. Officer responsible:..... Ensure appropriate documentation is retained. Vaccination Sessions (if required) issues to consider:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> locate suitable venue/s</li> <li><input type="checkbox"/> distribute information and advice</li> <li><input type="checkbox"/> assist with the coordination of vaccination session/s</li> <li><input type="checkbox"/> provide refrigeration and storage</li> <li><input type="checkbox"/> provide personnel i.e. nurses, administration</li> <li><input type="checkbox"/> provide waste management information</li> </ul> <p>..... ..... ..... ..... ..... ..... ..... ..... ..... .....</p>
Disinfection and cleaning	Environmental hazards
<p>Issues to consider: provide advice on how to clean and disinfect.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> private houses</li> <li><input type="checkbox"/> commercial premises</li> <li><input type="checkbox"/> public swimming pool, spas etc</li> </ul> <p>Is community information required?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> clean-up and disinfection of private homes and rainwater tanks following a floods/fires</li> <li><input type="checkbox"/> cleaning and disinfection of swimming pools and spas</li> </ul>	<p>What are the hazards? ..... .....</p> <p>Is sampling &amp; analysis required? Y/N If yes, what?.....</p> <p>Is erection of signs &amp; public notices required? Y/N If yes, what?.....</p> <p>Is distribution of information &amp; advice to the community required? Y/N If yes, what?.....</p>







## Chlorine concentrations required for disinfection

Chlorine based sanitisers (like household bleach) should be used in outbreak situations, as other sanitisers and disinfectants (such as quaternary ammonium compounds) are only effective against some bacteria but have very little effect on destroying viruses. Chlorine solutions must be made up freshly as the chlorine deteriorates over time. To make the concentration required dilute the chlorine as follows:

<b>Milton disinfectant (with 1% available chlorine)</b>			
	Add following amounts of Milton to the water to give the required concentration		
Volume of warm water to which chlorine is added	<b>100ppm</b>	<b>200ppm</b>	<b>1000ppm</b>
5 litres	50 ml	100 ml	500 ml
10 litres	100 ml	200 ml	1000 ml
50 litres	500 ml	1000 ml	5000 ml

<b>Household bleach (with 4% available chlorine)</b>			
	Add following amounts of bleach to the water to give the required concentration		
Volume of warm water to which chlorine is added	<b>100ppm</b>	<b>200ppm</b>	<b>1000ppm</b>
5 litres	12.5 ml	25 ml	125 ml
10 litres	25 ml	50 ml	250 ml
50 litres	125 ml	250 ml	1250 ml

<b>Liquid pool chlorine (with 12.5% available chlorine – concentrations based on 10% available chlorine)</b>			
	Add following amounts of liquid pool chlorine to the water to give the required concentration		
Volume of warm water to which chlorine is added	<b>100ppm</b>	<b>200ppm</b>	<b>1000ppm</b>
5 litres	5 ml	10 ml	50 ml
10 litres	10 ml	20 ml	100 ml
50 litres	50 ml	100 ml	500 ml

<b>Granular chlorine (with 65% available chlorine) – if using sachets follow manufacturers instructions</b>			
	Add following amounts of granular chlorine to the water to give the required concentration		
Volume of warm water to which chlorine is added	<b>100ppm</b>	<b>200ppm</b>	<b>1000ppm</b>
5 litres	0.8 g	1.5 g	8 g
10 litres	1.5 g	3 g	15 g
50 litres	8 g	15 g	77 g

- ppm = parts per million (a measure of concentration of chlorine)
- 5ml = 1 teaspoon. A standard bucket holds approximately 9-10 litres

### Important safety notes:

- It is safer to add chlorine to water (do not add water to chlorine) & use gloves when handling chlorine
- Do not heat water to make up chlorine solutions – warm tap water is safer (up to 50°C).
- Follow safety, storage and handling instructions on all bleach and chlorine containers as it is corrosive to metals, bleaches fabrics and may irritate the skin, nose and lungs.



## Public health survey of damaged premises/affected housing

Property inspection details			
Date:		Time:	
Completed by:		Position/title:	
Completed by:		Position/title:	
Property details			
Property name and address * description if address unknown			
Melway/VicRoads/VicMap Book ref		GPS coordinates	
Dwelling type:	House <input type="checkbox"/> Unit/Flat <input type="checkbox"/> Caravan <input type="checkbox"/> Business/Shop <input type="checkbox"/>		
Ownership details:	Owner occupied <input type="checkbox"/> Tenant <input type="checkbox"/> Government <input type="checkbox"/>		
Name of owner/occupier:		Contact No.	
Name of person/s present at visit?		Contact No.	
Have any person/s visited an Emergency Relief Centre?			
Damage assessment summary	Yes	No	Comments
Is property accessible for inspection?			
Has property been assessed for insurance?			
Are there functional utilities onsite? Duration of interruption?			Power <input type="checkbox"/> Gas <input type="checkbox"/> Water <input type="checkbox"/> Telephone <input type="checkbox"/> .....
Has the house been damaged?			
Have the outbuildings been damaged?			
Is the presence of asbestos likely?			
Is there an operational toilet onsite?			
Is the property connected to sewer?			
Are septic tank & effluent lines operational?	.....	.....	.....
Is a mechanical treatment plant used?	.....	.....	.....
Is the septic connected to a sand filter?	.....	.....	.....
Does septic require electric pump?	.....	.....	.....

Damage assessment summary	Yes	No	Comments
Is there operational potable water supply to the property?			Mains <input type="checkbox"/> Tank <input type="checkbox"/> Bore <input type="checkbox"/> Surface <input type="checkbox"/> Other:.....
Is there a requirement for removal of: Dead stock/domestic animals/wildlife? Putrescible materials? Food from refrigerators/freezers?	..... ..... .....	..... ..... .....	..... ..... .....
Are there potential hazards onsite? eg: hazardous chemicals, LPG gas cylinders			
Is there extensive flood damage? (List items and areas affected)			
Are there any additional health and sanitation problems?			
Temporary accommodation	Yes	No	Comments
Is temporary accommodation required?			
Is there a caravan already onsite?			Power connected: Yes <input type="checkbox"/> No <input type="checkbox"/> Toilet operational: Yes <input type="checkbox"/> No <input type="checkbox"/>
Is there a suitable area for a caravan?			
Is clearing required for a caravan?			Approximate quantity:.....m <sup>2</sup>
Is sanitary contractor required?			
Follow-up details:			
Follow-up inspection date:		Time:	
Recovery action undertaken:..... .....			
Further follow-up action required:..... ..... .....			

## Checklist of public health responsibilities in Emergency Relief Centres

Site details			
Site name & address			
Site manager name		Site manager phone	
Audit conducted by (name & position)		Audit date/time	
Food Safety	Yes	No	Comments
Is dry food being stored appropriately?			
Is the refrigeration capacity adequate?			
Are refrigerators/freezers at correct temperatures?			
Is there a dedicated operational hand wash basin with warm water, soap and paper towel available?			
Are food handlers displaying good hygiene practices?			
Are food preparation equipment and eating and drinking utensils being cleaned and sanitised after each use?			
Is food being sourced from registered suppliers?			
Is there a process for inspection, acceptance/rejection, storage or disposal of donated foods?			
Are special dietary requirements being met with appropriate procedures in place?			
Water Supply	Yes	No	Comments
Is there an adequate supply of hot and cold potable water? Mains <input type="checkbox"/> Tank <input type="checkbox"/> Bore <input type="checkbox"/> Surface <input type="checkbox"/> Other:.....			
Does the water require treatment?			
Is the water supply adequate for: Drinking <input type="checkbox"/> Food prep <input type="checkbox"/> Cooking <input type="checkbox"/> Sanitation <input type="checkbox"/>			
Wastewater Management	Yes	No	Comments
Type of system installed: Sewer <input type="checkbox"/> Septic tank <input type="checkbox"/> Secondary Treatment <input type="checkbox"/>			
Is the system coping with the load?			
Is de-sludging of the septic tank required?			
Has the disposal area been isolated to prevent damage?			

Sanitary Facilities	Yes	No	Comments
Is there adequate no. of toilet facilities for the number of people being accommodated? <i>(including male, female, child and disabled)</i> <b>Note:</b> Recommended no. of toilets is 1 per 15 females, 1 per 20 males; urinals 1 per 25 males; hand basins 1 per 30 people.			
Do additional portable toilet facilities need to be sourced?			
Are toilets supplied with toilet paper and hand basins supplied with soap and paper towel?			
Is there an adequate no. of shower and washing facilities? <i>(including male, female, child and disabled)</i> <b>Note:</b> Recommended ratio is 1 shower per 50 persons.			
Do additional portable shower facilities need to be sourced?			
Are the toilet and shower/wash room facilities being maintained in a hygienic state?			
Are the laundry facilities (washing, drying & hanging) adequate?			
Are there adequate baby changing facilities?			
Refuse Management	Yes	No	Comments
Are there an adequate number of receptacles? If not, how many more are needed? Have they been requested?			
Are the bins sited appropriately? eg: kitchen/toilets			
Is frequency of disposal/removal adequate?			
General	Yes	No	Comments
Temperature control – are changes required to improve: Ventilation <input type="checkbox"/> Heating <input type="checkbox"/> Cooling <input type="checkbox"/>			
Is the level of lighting appropriate? eg: kitchen, toilets			
Are there any problems with vermin/vectors?			
Are there any issues associated with noise?			
Are animals being brought /strays attracted to the venue? Is assistance from local laws/rangers required?			



