## SES Golden Point, Canadian, Eureka and Ballarat East Local Flood Guide

Flood information for Canadian Creek and tributaries





Pennyweight Gully at Canadian Lead Primary School, Jan 2011. Photo courtesy of Diane Chester

# For flood emergency assistance call VICSES on 132 500







#### **Ballarat East**

This guide covers the areas of Eureka, Ballarat East and Canadian. The area is growing with new houses being built and development of industry. The Canadian Creek system includes Canadian Creek itself as well as a number of smaller creeks which feed into Canadian Creek.

Canadian Creek is the major waterway in the area. It flows from Mt Helen (in the south) to the Ballarat Central Business District (in the north) where it joins the Yarrowee River. Canadian Creek has four streams which feed into it. These start in the Canadian Forest and are called Specimen Vale Creek, Warrenheip Gully, Pennyweight Gully and the Lal Lal Drain.

The map below shows the areas that may be concerned by floodwater in a flood that has a 1% chance of happening in any given year.

Please remember that no two floods are the same. You need to listen for current information from your emergency broadcasters to put your home emergency plan into action.



#### Disclaimer

This map publication is presented by Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by Victoria State Emergency Service. No liability is accepted for any damage, loss or injury caused by errors or omissions in this information or for any action taken by any person in reliance upon it. Flood information is provided by Corangamite Catchment Management Authority.

#### Are you at risk of flood?

Low-lying areas near the creeks are at risk of flash flooding after heavy storms or during long rainfall events. Flash flooding occurs when Canadian Creek and its streams become full and overflow into nearby land.

Floods in Ballarat East, Canadian, Golden Point and Eureka rise and fall, and move quickly (normally within hours) so you may not receive a warning. Because of the quick nature of flooding in these areas, roads can be closed with little notice and flooded roads are very dangerous for people who are walking.

#### Did you know?

- Canadian Creek and its streams have a history of flooding, with large floods in 1869, 1909, 1933, 1988, 1990, 1991 and 2011.
- The December 1991 flood has been reported as one of the most severe flood events in the area in living memory. This flood occurred after a burst of intense rainfall hit Ballarat, with 76 millimetres of rain falling in less than 2 hours in Central Ballarat. This flood caused flooding of Callow Street, McDonald Street and Queen Street.

### No two floods are the same. Floods like this or worse could occur again.

If you live in a low-lying area you may be at risk of flooding or need to detour around flooded areas.

Knowing what to do can save your life and help protect your property.

- A flood like 1991, could affect more than 400 properties in the area covered by this guide. Fifty (50) properties are likely to have water above floor in their houses.
- The January 2011 flood happened after 200 millimetres of rain fell over 5 days. This included 80 -100 millimetres in 26 hours. Houses were affected in Main Road and Little Dodds Street. In 2011, significant flash flooding occurred including flooding over roads in Joseph, Fussell, Spencer and Callow Streets and Stawell Street South, with Main Road closed between Barkly and York Streets.
- It is important for families, businesses and locals to be aware of the risks, be prepared and have their emergency plans ready when flooding occurs.

#### Sandbag Collection Point

A Sandbag Collection Point may be opened at the Ballarat VICSES Unit, 115B Gillies Street, and Alfredton if there is potential for flooding in the area.

Residents can call in to fill and collect up to 25 sandbags per household to protect your home.

City of Ballarat will promote when this collection point is opened through local radio, newspaper and other media.





## Canadian Creek, Specimen Vale Creek, Warrenheip Gully, Pennyweight Gully and Lal Lal Drain information

The following table indicates the likely impacts of flooding in Ballarat East, Canadian, Golden Point and Eureka for differing rainfall events.

Remember that the effects of rainfall are greater when the land is already saturated by previous rain, and that rainfall over this area may be greater than the reported rainfall at the Ballarat Airport gauge.



Richards Street, Canadian, 14<sup>th</sup> January 2011, looking east on Grasstree Creek, which flows into Pennyweight Gully. Photo courtesy of Diane Chester

#### **Staying Informed and Further Information**

<ul> <li>Current warnings (VicEmergency)</li> </ul>	emergency.vic.gov.au	1800 226 226
<ul> <li>Bureau of Meteorology (BoM)</li> </ul>	bom.gov.au/vic/warnings	1300 659 217
VicRoads Traffic	traffic.vicroads.vic.gov.au	
Emergency Broadcasters	ABC Radio 107.9 FM 3BA Radio 102.3 FM Power FM Radio 103.1 ABC Radio 774 AM SKY NEWS Television	Life-threatening Emergency 000
VICSES Social Media	facebook.com/vicses twitter.com/vicsesnews	
Preparing for Flood Emergencies	ses.vic.gov.au/get-ready	
Creating an Emergency Plan	redcross.org.au/prepare	
Catchment Management Authority	ccma.vic.gov.au	(03) 5232 9100
<ul> <li>City of Ballarat</li> </ul>	ballarat.vic.gov.au	(03) 5320 5500
National Relay Service NRS	communications.gov.au	



Rainfall intensity (mm/hour)	Buildings/ Properties flooded	Impact/level
		Major rainfall level
118mm in 12 hours	54 buildings 462 properties	Further properties may be affected in all previously mentioned areas. Minor inundation over Canadian Lakes Boulevard, Recreation Road and Bradby Avenue. Refer to Map 2 for flood risk area.
		Moderate rainfall level
401	52 buildings 392 properties	<b>Canadian Creek:</b> Flooding across Elsworth Street. Properties on Eastwood Street and Steinfeld Street North impacted.
		<b>Specimen Vale Creek:</b> Additional properties on Balmoral Drive inundated. Possible overtopping of the embankment along Charlesworth Street if the culvert becomes blocked by debris.
		Warrenheip Gully: Callow Street up to half a metre deep.
		<b>Pennyweight Gully:</b> Overflow of creek near York Street, affecting roads and properties around York, Little Dodd and Larter Streets and Main Road.
		Lal Lal Drain: Water across the road in Butt Street.
84mm in 12 hours	33 buildings 329 properties	<b>Canadian Creek:</b> Additional properties near Barkly Street between Main road and Steinfeld Street North flooded and minor inundation of Olympic Avenue.
		<b>Specimen Vale Creek:</b> Inundation of several properties on Balmoral Drive.
		<b>Warrenheip Gully:</b> Flooding of some properties on Carboni Court, Kline, Fussell and Little Dodd Streets.
		<b>Pennyweight Gully:</b> Inundation of properties on York Street and possible road closure of Otway Street.
		Lal Lal Drain: Additional properties on Butt, Larter and Linaker Streets flooded.
		Minor rainfall level
70mm in 12 hours	20 buildings 252 properties	Increased likelihood of road closures across all tributaries.
		<b>Specimen Vale Creek:</b> Flooding of several properties on Gordon, King and Stawell Street South, possible road closures of Specimen Vale, Queen, Chamberlain and Charlesworth Streets.
		Warrenheip Gully: Several properties on Rodier and Callow Streets, Henfield and Steffen Close and Catalina Court flooded.
		<b>Pennyweight Gully:</b> Flooding of properties in Canadian Springs Drive, Deep Lead Close, Kline, Richards and Spencer Streets, Clayton Park Drive and Jenola and Cherry Courts. Joseph and Fussell Streets flooded.
		Lal Lal Drain: Inundation of properties on Butt, Larter and Linaker Streets. Water across Lal Lal and Joseph Streets.



# Flood warnings and emergency checklist

A **Flood Watch** means there is a developing weather pattern that might cause floods in one or two days. This service covers the whole state.

A **Flood Warning** means flooding is about to happen or is already happening. There are minor, moderate and major flood warnings. This service is only available where flood warning systems are in place.

A Minor Flood Warning means floodwater can:	A Moderate Flood Warning means floodwater can:	A Major Flood Warning means floodwater can:
Spill over river banks and cover nearby low lying areas.	Spill over river banks and cover larger areas of land.	Cause widespread flooding.
Come up through drains in nearby streets.	Reach above floor levels in some houses and buildings.	Many houses and businesses are inundated above floor level.
Require the removal of stock in some cases.	Require evacuation in some areas.	Cause properties and whole areas to be isolated by water.
Cover riverside camping areas and affect some low-lying caravan parks.	Affect traffic routes.	Closes major roads and rail routes.
Cover minor roads paths, tracks and low level bridges.	Require the removal of stock in rural areas.	Require many evacuations.
Affect backyards and buildings below floor level.		Affect utility services (power, water, sewage etc.).

#### **Severe Thunderstorm Warnings**

Thunderstorms are classified as severe when there is potential to cause significant localised damage through wind gusts, large hail, and tornadoes or flash flooding. Severe Thunderstorm Warnings are issued to the community by BoM.

#### **Severe Weather Warnings**

These warnings are issued to the community by BoM when severe weather is expected that is not directly related to severe thunderstorms or bushfires. Examples of severe weather include damaging winds and flash flooding.

#### **Flash Flooding**

- Flash Flooding can occur quickly due to heavy rainfall. You may not receive an official warning.
- Stay informed- monitor weather warnings, forecasts and river levels at the <u>BoM website</u> and warnings through <u>VicEmergency</u>.



#### **VICSES Warnings**

VICSES utilises the VicEmergency app, website and hotline to distribute flood warnings and emergency information in Victoria. Communities can also access this information through VICSES social media channels and emergency broadcasters.

VICSES warnings aim to provide you with information to help you make good decisions to protect yourself and your family

The warning level is based on severity, conditions and the likelihood that the emergency could impact on the community.

WARNING LEVELS		
	<b>EMERGENCY WARNING</b> You are in imminent danger and need to take action immediately. You will be impacted. A Major flood warning usually fits into this category	
	WARNING (WATCH AND ACT) An emergency is developing nearby. You need to take action now to protect yourself and others. A Moderate flood warning usually fits into this category.	
Â	ADVICE An incident is occurring or has occurred in the area. Access information and monitor conditions.	
	Can also be used as a notification that activity in the area has subsided and is no longer a danger to you. A Minor flood warning or Flood Watch usually fits into this category.	

ADDITIONAL MESSAGES		
A	PREPARE TO EVACUATE/ EVACUATE NOW An evacuation is recommended or procedures are in place to evacuate.	
ð	<b>COMMUNITY INFORMATION</b> A newsletter containing updates for communities affected by an emergency. Can also be used as a notification that an incident has occurred but there is no threat to community.	
EMERGENCY ALERT. BE WARNED. BE INFORMED.		

#### Your emergency plan

Emergencies can happen at any time and with little warning. People who plan and prepare for emergencies can reduce the impact and recover faster.

Taking the time to think about emergencies and make your own plan helps you think clearly, have more control and make better decisions when an emergency occurs.



Visit redcross.org.au/prepare start creating your plan.

- Remember, you may not receive any official warning.
- Emergency assistance may not be immediately available.
   Be aware of what is happening around you to stay safe.
- Never wait for a warning to act.

#### **Emergency Kit**

Visit Emergency Toolkit for more information



Every home and business should have a basic emergency kit with supplies for 3 days:



Check your kit often. Make sure things work. Replace out of date items.

## When a warning is issued, have ready for use or pack into your kit: I need to add:

Write your list here. Tick items as you pack them into your kit.

Special needs (e.g., babies, elderly and people with a disability)	
Photos	
Family keepsakes	
Valuables	
Other	

#### **Emergency Checklist**

- □ Check if your insurance policy covers flooding.
- □ Keep this list of emergency numbers in your mobile phone.
- Download the Vic Emergency app on your mobile phone.
- □ Put together an emergency kit and prepare a home or business.
- Emergency plan, see <a href="https://www.redcross.org.au/prepare">https://www.redcross.org.au/prepare</a>

#### **Before Flooding**

- □ Leaving early before flooding occurs is always the safest option. Evacuating through floodwater is very dangerous and you may be swept away.
- □ Stay informed- monitor weather warnings, forecasts and river levels at the <u>http://www.bom.gov.au</u> and warnings through <u>www.emergency.vic.gov.au</u>
- □ Secure objects likely to float and cause damage.
- □ Listen to the radio and check the VICSES website for information and advice.
- Go over your emergency plan. Pack clothing and other extra items into your emergency kit and take this with you if you evacuate.

#### **During Flooding**

- □ Make sure your family members and neighbours are aware of what is happening.
- □ Conditions change rapidly; roads and escape routes can be covered or blocked.
- □ Put household valuables and electrical items as high as possible.
- □ Turn off water, gas and electricity at the mains.
- □ If you are staying in a caravan, move to higher ground before flooding begins.
- □ Seek shelter indoors, away from floodwater.
- □ If floodwater comes inside, move to a higher point such as a kitchen bench or second storey.
- □ Stay away from trees, drains, low-lying areas, creeks, canals, culverts and floodwater.

#### **Evacuating in Flooding**

- □ Flood water is dangerous. Never enter floodwater. It can take just 15cm of water to float a car.
- □ Find alternative travel routes if roads or underpasses are flooded.
- □ Be aware of driving hazards, such as mud, debris, damaged roads and fallen trees. If driving conditions are dangerous, safely pull over away from trees, drains and floodwater.

#### **After Flooding**

- □ For recovery information, contact your local council, go to the VicEmergency Relief and Recovery-<u>emergency.vic.gov.au/Relief</u> page or call the VicEmergency Hotline (1800 226 226).
- □ Have all electrical and gas equipment professionally tested before use.
- □ Stay away from damaged and flooded buildings, fallen trees and powerlines and damaged roads until authorities advise it is safe to do so.
- Drive slowly, obey all road signs and never drive through floodwater.
- □ When cleaning, protect your health and safety. Wear strong boots, gloves and protective clothing and wash your hands and clothes regularly.

For VICSES emergency assistance, call **132 500**, or **Triple Zero (000)** in life threatening emergencies.

