

Invermay

Levee Protected Area community flood guide

Riverine flooding information for North Esk, South Esk and kanamaluka/
Tamar Rivers

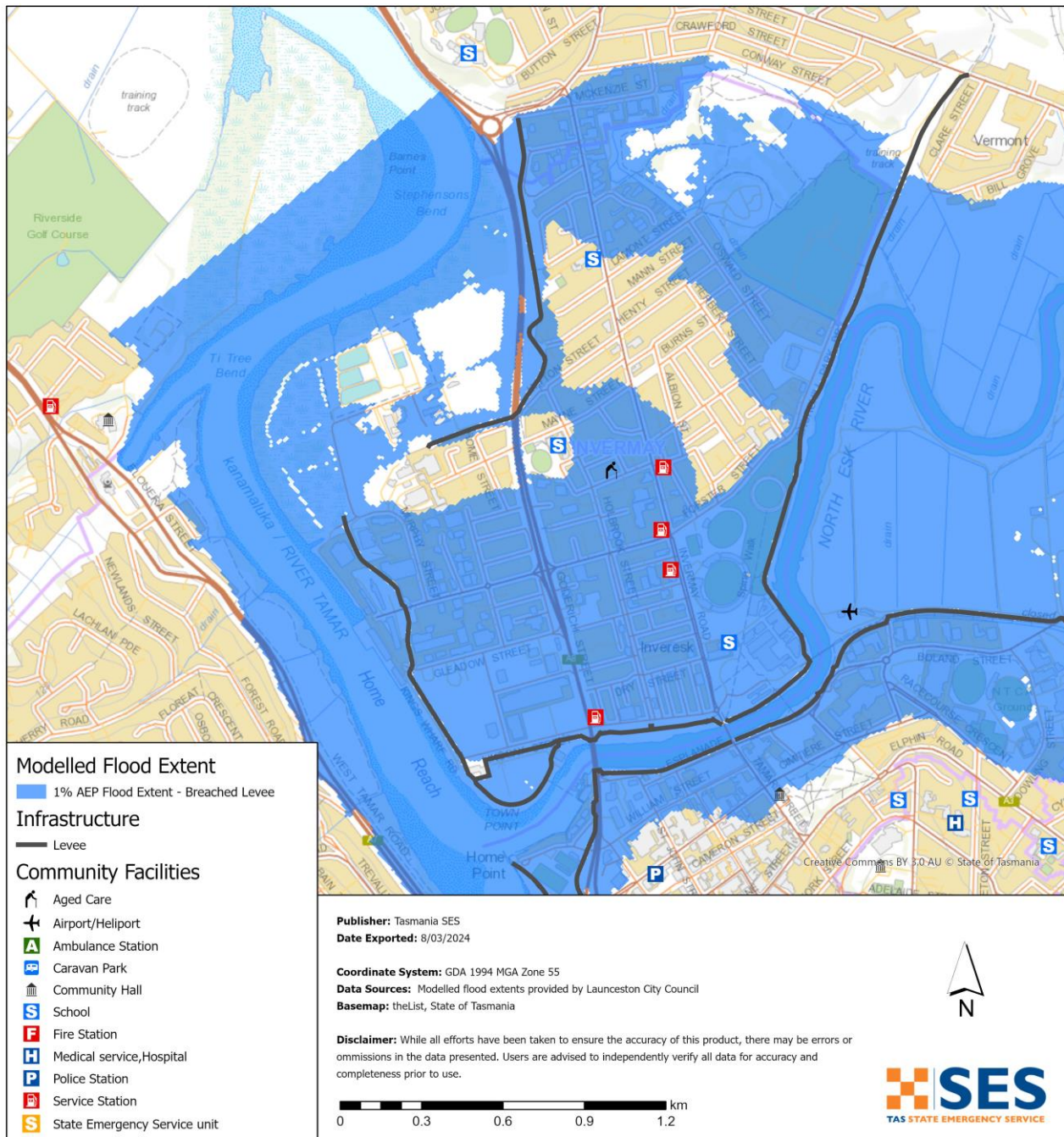
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Map 1 – Levee Protected area of Invermay to a 1% Annual Exceedance Probability (AEP) flood event (Major Flood).

*AEP is a term used to express the percentage of likelihood of a flood, of a given size or larger, occurring in a given year



Map 2 – Levee Protected area of Invermay if a failure of the levee occurred at 1% AEP. A flood greater than 1% AEP will overtop the existing levee system and increase the flood extent.

*AEP is a term used to express the percentage of likelihood of a flood, of a given size or larger, occurring in a given year



storm and flood ready

Introduction

Flooding often happens in Tasmania and can cause widespread and significant damage. In the past 200 years there have been 78 flood related deaths in Tasmania. This guide is to help you understand flood risk in the Invermay and the Inveresk areas and provide you information on what you can do to prepare for, respond and recover from a major flood.

The maps at the start of this document are there to provide an understanding of the impact of a major flood in the Invermay and Inveresk area should the flood levee's fail or overtop.

Overview

Invermay and Inveresk are one of the most flood prone areas in Tasmania, being on a floodplain at the junction of 3 major rivers:

- the South Esk River
- the North Esk River and
- the kanamaluka / Tamar River estuary.

Major flooding of the South Esk River is the greatest risk to Invermay, with a combined South Esk and North Esk Rivers flood event increasing the risk to the area.

Levees help protect properties around Invermay. However, there is no guarantee they can withstand a major flood.

Experiences in other countries show that levee failures can be gradual or sudden. Low lying parts of Invermay may flood quickly. Flood waters may isolate other areas of the suburb.

If the levees failed, people's lives could be at risk in Invermay as evacuation would be difficult. Roads in and around the suburb will be closed due to the levee. Some other routes around Launceston may also be flooded. There will be long traffic delays. Isolated areas would probably not have services such as power, water and sewerage. These may take some time to restore after a major flood.

The State Emergency Service, Tasmania Police and the City of Launceston have worked to identify Critical Decision Points ('Trigger Points') for actions that will keep people safe in a major flood event. These are outlined further in this document.

If the South Esk River is predicted to reach a certain flood height, a Voluntary Evacuation may be declared, it is recommended that you go somewhere safer until the water goes back down. If the river reaches a higher level, a directed Mandatory Evacuation will commence.

If a Mandatory Evacuation is called, services such as electricity, water and gas will be cut off to reduce hazards and protect assets so services can be restored as soon as possible when flood waters go down. If you decide to stay you will not have any of these services in your house - it is much better if you leave and leave early. If you stay, you could put yourselves and others at risk.

If you have pets, you should take your animals with you if you can.

If you can, it is best to stay with family or friends in a safer place while your home is at risk of flooding. If you have nowhere to go, there is likely to be an **evacuation centre opened at the Silverdome – 55 Oakden Road, Prospect Vale**. Keep checking [Tas ALERT](#) or listen to ABC local radio during a flood event for important information.

SES, City of Launceston and Tasmania Police can also provide information on where to go and how you can get there.

In such flooding events, some areas outside of Invermay may also be isolated due to flooding of the low lying areas, roads may have flood waters across them. It is dangerous to drive through flooded roads, particularly in isolated areas. It is recommended to find an alternative route.

Traffic is likely to be heavy throughout the city as roads and levee gate closures restrict traffic movements, so the best option is to leave early and allow plenty of time to get to a safe place.

If the levees fail or are overtopped, people who did not evacuate early when directed;

- put their lives and the lives of others at risk due to the likely rapid flooding of some buildings and roads, the flooding of evacuation routes, and the isolation of other areas from help;
- cannot expect to have access to emergency services such as ambulance, police, fire, or SES;
- cannot expect to have services such as electricity, gas, water, sewerage or telecommunications;
- may be exposed to waste water as the sewerage system will be overwhelmed with water and not function

Check TasALERT for key information during a flood event – alert.tas.gov.au

No two floods are the same. Floods like the one shown in the map or worse will occur.

If you live in a low-lying area you may be at risk of flooding if the levee system fails. Consider leaving early during the Voluntary Evacuation stage. Even if your home is not flooded, access to the area will be restricted. There may not be utility services such as power, gas and water for some time.

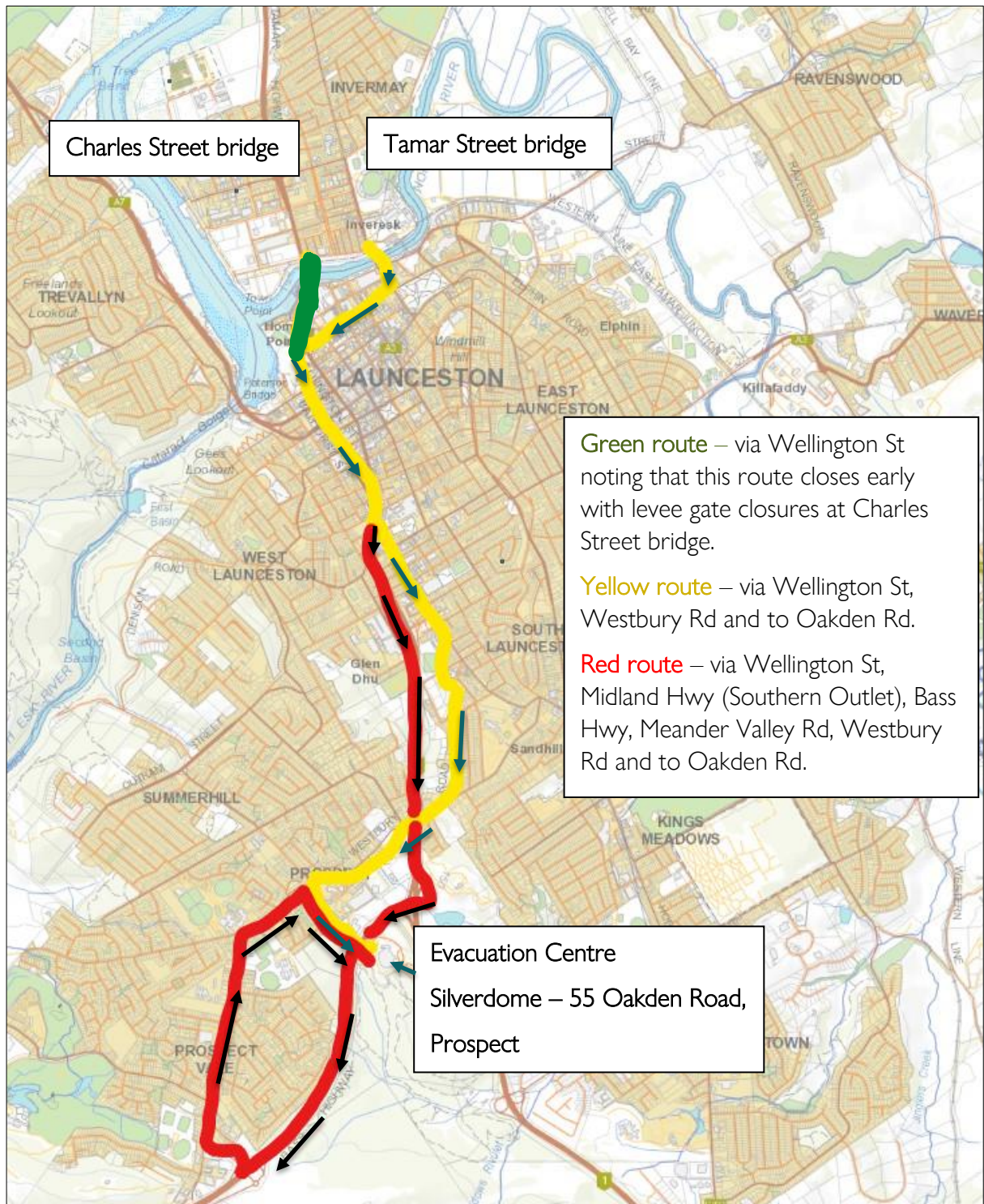
Never drive through, or enter flood waters.

Knowing what to do can save your life and help protect your property. Preparing a Home Emergency Plan is one of the best ways to prepare.

Include the stages of evacuation and triggers for action in your Home Emergency Plan.

The maps show potential flooding risks from consistent levels of rainfall across catchments, such as a 1% Annual Exceedance Probability (AEP). In flooding events, rainfall is likely to be more inconsistent across a catchment, so these flood maps should be considered indicative only. The mapped areas of flood risk show higher probability of inundation. Other areas have lower probability of flooding, but in severe and rare events (rarer than 1%AEP), other lower areas may be also at risk of inundation.

The information in this guide is current at the date of publication. While every effort has been taken to ensure the validity and accuracy of the data presented, the State Emergency Service does not take responsibility for data error or omission. Please see the standard Tasmanian Government's Copyright and Disclaimer Statement for more details <https://www.tas.gov.au/codi>.



Map 3 – Evacuation routes to the Silverdome Evacuation Centre from the Invermay / Inveresk area.



Are you at risk of flood?

A 1% Annual Exceedance Probability (AEP) flood event has a 1% chance of occurring any given year. You can expect to see a flood of this frequency at least once in your life.

Launceston has a long history of flooding. Since European settlement:

- 1852, 1863 and 1893 had serious flood events for Launceston.
- 1929 was the most severe flooding recorded in modern history. Over a thousand homes and buildings were damaged, with some swept from their foundations. Flooding damaged the two suspension bridges over the Gorge area. Four thousand people were evacuated from Invermay, Inveresk, and Margaret Street areas. The 1929 floods provided incentive to build the levees. It was not until 1940 that Launceston recovered from the flood.
- 2016 – Launceston prepared for a major flood event and closed all levees. Previous upgrades of the levee system helped avoid losses of about \$216 million, had the previous ageing levees failed.
- October 2022 – Launceston narrowly escaped a major flooding event.

What should I do?

Check the map to see whether your home or business is likely to be at risk during a flood or in a levee protected area. The risks to your home or business may be potential inundation, or the loss of utility services and isolation.

- Prepare an Emergency Plan for your home and business. Consider what you need to do in the event of an evacuation and what you will need to take with you.
- Assess your home or business and prepare it to minimise possible flood damage in the event of a levee failure.
- If you have extra needs due to disability, illness or lack of mobility, it is a good idea to think about what your specific needs might be in a flood event before a flood event happens.
- Think about family, friends and neighbours who live close by who may need help, consider including them in your personal plan

Bureau of Meteorology (BoM) Forecasts, Warnings, and Observations

The BoM issues a **Flood Watch** when predicted weather might cause floods for the North Esk River, and the South Esk River. A Flood Watch may:

- be for a specific area such as the **South Esk River** catchment, or
- be generalised such as for **Central North river basins**

The BoM issue **Flood Warnings with specific flood heights** for the South Esk River and North Esk River. Flood gauges along the rivers provide warnings of flood heights and the possible impacts in Launceston. Tides can also add to the flooding risk around Invermay.

Evacuation Critical Decision Points (Triggers)

The North Esk and South Esk rivers have pre-determined critical decision points at which an evacuation may be declared. Tasmania Police and SES will issue the evacuation notice.

Evacuation triggers – Flood height and water volume flowing from the **South Esk River at Trevallyn Pond**:

- Voluntary Evacuation – **BoM Moderate Flood Warning** – 130.16 mAHD or 1600 cumecs (m^3/s)
- Mandatory Evacuation – **BoM Major Flood Warning** – 130.95 mAHD or 2250 cumecs (m^3/s)

Keep up to date with warnings and other key information at tasalert.com or listen to ABC local radio.

BOM warnings can be found on their website at [Tasmania Weather and Warnings \(bom.gov.au\)](https://www.bom.gov.au/Tasmania-Weather-and-Warnings)

**What is a cumec of water? - One cumec equals one cubic meter of water flowing past a point in one second. One cubic meter of water equals one thousand litres and weighs one tonne.*

Understand the warnings and key information



Advice (Yellow): an incident has started. There is no immediate danger. Stay up to date in case the situation changes.



Watch and Act (Orange): There is a heightened level of threat. Conditions are changing and you need to start taking action now to protect you and your family.



Emergency Warning (Red): An Emergency Warning is the highest level of warning. You may be in danger and need to take action immediately. Any delay now puts your life at risk.



Community update (Blue): Specific information and updates for affected communities regarding a particular event or incident.



Incident (White): an incident is the initial occurrence of an event before it becomes an emergency warning. As soon as an incident is reported, TasALERT published basic information including the type and location of the incident.

Flood levels at Invermay / Inveresk

While no two floods are the same, the following table shows what you can expect at different flood levels around Invermay. Even if your property is not flooded, you need to think about access routes.

Enact Emergency Plans Moderate Flood Warning – South Esk River @ Trevallyn Pond – 129.90 mAHD 1500 cumecs (m ³ /s)	Voluntary Evacuation Moderate Flood Warning – South Esk River @ Trevallyn Pond – 130.16 mAHD 1600 cumecs (m ³ /s)	Mandatory Evacuation Major Flood Warning – South Esk River @ Trevallyn Pond – 130.95 mAHD 2250 cumecs (m ³ /s)
<p>Potential inundation of some of the West Tamar Highway near the Paterson Bridge - this road will continue to be influenced by the tide heights.</p> <p>Changing traffic conditions</p> <p>Potential inundation of Henry Street – Road Closure</p>	<p>You will be advised to evacuate, it is strongly recommended that you do so.</p> <p>If time allows, emergency services will start door knocking the low-lying areas of Invermay/Inveresk and provide evacuation information.</p>	<p>You will have to leave your home if it is within the levee protected areas.</p> <p>Utility services such as power, gas and water are likely to be lost. There may be interruptions to sewage service</p> <p><i>Tasmania Police will direct evacuation and secure the evacuated area.</i></p>
<p>Closure of levee gates commences.</p>	<p>Closure of most levee gates as water height increases, however Charles Street Bridge will remain open.</p> <p>Inundation of low sections of the West Tamar Highway commences</p>	<p>Closure of all levee gates including the Charles Street Bridge.</p> <p>Many other roads throughout the city are closed due to flood waters.</p>
<p>Arterial traffic routes are still open.</p>	<p>Traffic flow remains possible into the city via Charles Street and Invermay Road / Tamar Street.</p> <p>Expect traffic delays.</p> <p>Water may be trapped behind levees due to the rainfall.</p>	<p>Traffic flow is restricted, only allowing traffic to leave Invermay via Invermay Road over Tamar Street Bridge.</p> <p>Expect long delays in traffic movements.</p> <p>Access into Invermay is restricted to Tasmania Police and Emergency Services.</p>

		<p><i>There is the possibility for flooding to exceed the height of the levees, if this happens flood waters will enter Invermay and Inveresk.</i></p>
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Know your risk, get ready, reduce risk where you can, connect with others, stay alert and act safe.

BEFORE

1. Know your risk

Depending on your location, you may experience floods differently. However if you live in Invermay or Inveresk you will be impacted either by flood waters or become isolated and not have power, gas, water and sewerage services should there be a major flood and levees are breached or fail.

2. Prepare your household

Have an emergency plan that covers storms and floods

Thinking about what you would do in a storm or flood means you are more prepared and everyone is safer. Have an emergency plan that everyone in your household understands. There are checklists to help you think through your plan – see the [SES website](#) or [Red Cross Rediplan](#).

Check your plan regularly and test it by everyone in the household thinking through a flooding scenario that may affect your household.

Share this plan with friends and family, and any others which may need to know, i.e. child care, support services etc. Ensure they are aware of the roles they will take if you enact your plan.

Prepare an Emergency Kit

Ready to go	Pack when needed
Battery powered radio and torch, spare batteries	Warm clothes, sturdy shoes or boots
Important information, such as your emergency plan	Medicine, glasses or other essential items
A list of emergency numbers	Mobile phone and phone charger
Food and water	Pet food and anything else they need
First aid kit	Photos and special keepsakes
Rubber or strong leather gloves	Important documents, for example <ul style="list-style-type: none"> • insurance papers • passports and • birth certificates

Regularly test batteries in radios and torches.

3. Reduce your risk from flooding where you can

- Think about storms, flooding and other hazards when buying, maintaining or developing property.
- Trim or remove trees and branches overhanging your home, business or near powerlines on your property.
- Keep your gutters and drains clear.

4. Connect with others

Know your neighbours and get involved in your community. A connected community is a safer and more resilient community in an emergency and can help everyone recover better afterwards. Check that family and neighbours are safe and aware of what's happening.

DURING

5. Stay alert

Keep aware of what is happening around you. Check forecasts, observations and warnings regularly.

- <https://alert.tas.gov.au/>
- [your local ABC radio station](#) or



- the [Bureau of Meteorology's](#) website.

6. Act safe

- Supervise children.
- Prepare for possible power, water or internet outages.
- Check your emergency kit is ready to go.
- Keep clear of flooded areas such as drains. **NEVER** walk, play, ride or drive in floodwater. You can't always see what is under the water or how deep or fast-moving the water is. It is easy to be swept away and drown in as little as 20cm of fast-moving water. Flood water can be dangerous.

When your home may be flooded

- Put household items up high to minimise possible damage.
- Turn off the electricity and gas if it is safe to do so.
- A great way to stop sewerage flowing back into your home is to place sandbags inside plastic bags and use them to block toilets and cover drains and sinks.
- Leave while you can get out safely.

When you need to evacuate

- Voluntary Evacuation – To remain safe it is advised to leave as soon as possible.
- Mandatory Evacuation – You will be directed to leave the area by Tasmania Police.
- Follow the advice from SES / Tasmania Police.
- Take your emergency kit.
- Go to friends or family in a safer place or an evacuation centre *if you have no other option*
- Let others know where you have gone.

Look after your animals

You are responsible for your animals in an emergency. If you have pets and other animals it will take you longer to evacuate in a flood or other emergency. For more information see [RSPCA's guidance on preparing for animals in an emergency](#) and [RSPCA Tasmania Ready, Pet, Go!](#)

Think about getting a PET PAL - a PET PAL is a friend or relative where you can take your pet(s) to during an emergency situation. Talk to your PET PAL about your evacuation plans, further information can be found at the [City of Launceston Emergency Management Hub](#)

Avoid travelling during and after storms

- Do not go sightseeing. Sightseers delay emergency services, cause accidents and add additional vehicles to the traffic flow out of the Invermay area extending traffic movement delays.



- Watch out for hazards such as
 - water over roads
 - damaged powerlines
 - landslides
 - damaged roads
 - falling trees or roofing iron.
- Never drive through flood waters. Most deaths and rescues in floods are from people driving through flood waters.
- Drive slowly and turn your headlights on when travelling on roads not affected by flood waters.

AFTER

- Keep listening for ABC Local Radio updates, road re-openings, community meetings, etc.
- If you left your home, do not return home until SES or Tasmania Police tell you it is safe to do so.
- Be aware of road hazards, such as mud or debris on the road, damaged roads/bridges and crews working on clean-up and repairs.

If your home has been damaged

- Stay at ground level while checking for damage. Be careful of fallen trees, broken glass, loose roofing or other hazards.
- Wear strong boots, gloves and protective clothes.
- Use a torch, never use matches or candles inside flood affected buildings.
- Boil all drinking water until you are told the tap water is safe again.
- Do not turn on electricity or gas until it is tested by a licensed electrician or gas fitter for safety.
- If your home is damaged and you need to stay somewhere else, take your emergency kit and pets with you
- Take photos of any damage if safe for you to do so and contact your insurance company.
- Supervise children.
- Check neighbours are okay.

For further information go to www.ses.tas.gov.au or www.launceston.tas.gov.au/Emergency-Management-Hub



Staying informed and further information

Current warnings (TasALERT)	alert.tas.gov.au	
Bureau of Meteorology (BoM)	bom.gov.au/tas/warnings	
Emergency Broadcasters	ABC 91.7FM	
TAS SES Social Media	facebook.com/sestasmania	
	twitter.com/sestasmania	
Preparing for Flood Emergencies	ses.tas.gov.au/plan-prepare/flood	
City of Launceston Council	Launceston.tas.gov.au	6323 3000
	City of Launceston Emergency Management Hub	
National Relay Service (NRS)	relayservice.gov.au	
Translating and Interpreting Services (TIS National)	www.tisnational.gov.au/	



For flood assistance call

132 500

ses.tas.gov.au/plan-prepare/flood



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