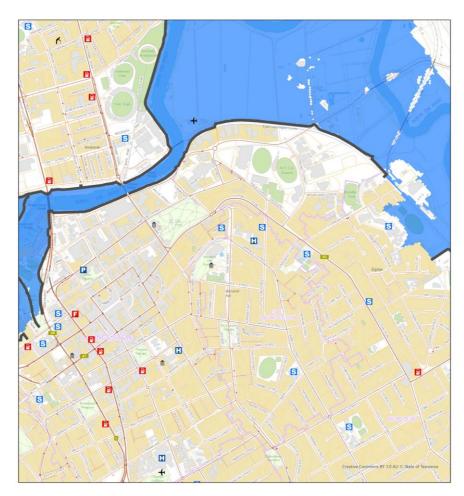


City and East Launceston

Levee Protected Areas community flood guide

Riverine flooding information for South Esk, North Esk and Tamar Rivers version 0.5 July 2024











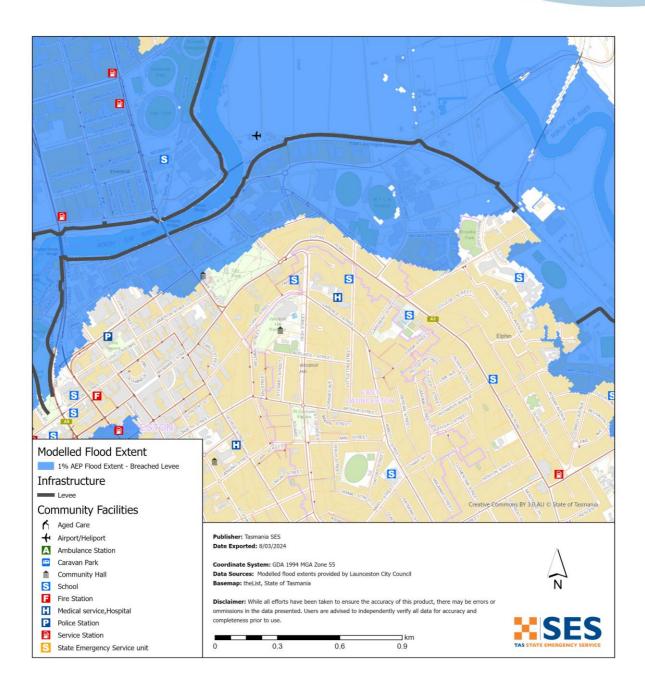




Map 1 – City and East Launceston Levee protected areas during a 1% Annual Exceedance Probability (AEP) flood event.

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





Map 2 – The City and East Launceston areas if a failure of the levee occurred at 1% AEP. A flood frequency greater than 1% AEP will overtop the existing levee system and increase the flood extent.

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



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 City and East Launceston 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 should the flood levee's fail or overtop.

The river edge areas of City and East Launceston are subject to flooding from the:

- South Esk River;
- North Esk River; and
- the kanamaluka / Tamar River Estuary.

Major flooding of the South Esk River is the greatest risk to the City and East Launceston levee protected areas. A combined South Esk and North Esk flood event would increase the risk of flooding.

The City Levee reduces flood risk for the city river edge areas. The East Launceston Levee reduces flood risk for the lower East Launceston area adjacent to the floodplain.

There is no guarantee the levees will withstand a major flood. Experiences in other countries show that levees can fail, both gradually and suddenly. If the levees fail, low lying parts of the City and East Launceston may flood quickly. Flood waters may isolate other areas.

The State Emergency Service, Tasmania Police and the City of Launceston have worked to identify Critical Decision Points for early evacuations and other actions to 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 directed mandatory evacuation of the levee protected areas will commence. If you stay, you could put yourselves and others at risk.

If an evacuation is called, services such as electricity, water and gas will be switched off to reduce hazards and protect assets so services can be restored as soon as possible when flood waters go down.

If you live, work, or visit these areas it is important that you follow all instructions during a flood event, especially warnings to evacuate the area early.

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 <u>TasALERT</u> or listen to ABC local radio during a flood event for important information.



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

In such flooding events, some areas 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.

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;
- all utility services may be unavailable for an extended period after a flood.

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

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.

Newstead and Launceston have a long history of flooding. Since European settlement:

- 1852, 1863 and 1893 were serious flood events recorded 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. The two suspension bridges over the Gorge area were damaged. Four thousand people were evacuated from Invermay, Inveresk and Margaret Street areas. It was not until 1940 that Launceston recovered from the flood. The 1929 floods provided incentive to build the levees.
- 2016 Launceston prepared for a major flood event and closed some levees. Previous upgrades of the levee system helped avoid losses of about \$216 million, had the previous ageing levees failed.
- 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 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. Flood gauges along the rivers provide warnings of flood heights and the possible impacts in Launceston. Tides can also add to the flooding risk of the river edge areas Launceston.

Critical Decision Points

The North Esk and South Esk rivers have pre-determined triggers for an evacuation to be declared. Tasmania Police and SES will issue the evacuation notice.

Evacuation Decision Point - Water volume flowing at the South Esk River at Trevallyn Dam

• Mandatory Evacuation – **BoM Major Flood Warning - 131.24 mAHD** or 2500 cumecs (m³/s)

Keep up to date with warnings and other key information at <u>tasalert.com</u> or listen to ABC local radio. BOM warnings can be found on their website at <u>Tasmania Weather and Warnings</u> (bom.gov.au)

*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 incident.

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

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

Flood levels at East Launceston and City areas

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

Minor Flood Warning – South Esk River @ Trevallyn Dam 128.20 mAHD	Moderate Flood Warning – South Esk River @ Trevallyn Dam - 130.16 mAHD	Major Flood Warning – South Esk River @ Trevallyn Dam - 130.95 mAHD	
	1600 cumecs (m³/s)	2250 cumecs (m³/s)	
		Mandatory Evacuation — 2500 cumecs (m³/s)	
No residences at risk of inundation in the levee protected areas.	No residences at risk of inundation in the levee protected areas.	Mandatory evacuation of residences being at risk of flood will commence if forecast flooding exceeds the Critical Decision Point. Areas at risk for evacuation: Lower Charles Street, William Street, Esplanade, Shields Street, Lower St	



		Johns Street, Tamar Street, Cimitiere Street, Boland Street, Willis Street, Lawrence Street, Innes Street, Racecourse Cresent, Dowling Street, Broadlands Drive	
		Tasmania Police will direct an evacuation and secure the evacuated area.	
No roads are affected by flooding.	Henry Street will be flooded and will remain closed.	Hoblers Bridge Road is flooded and closed.	
	Glebe Farm Road may be closed by levee gate closure.	Henry Street will be flooded closed.	
	Roads close to the area may become inundated and this can also be influenced by the tides	West Tamar Highway will be flooded and closed depending on the tide height	
	including: Henry Street, Hoblers Bridge Road and Station Road. West Tamar Highway may be	Charles Street Bridge will be closed and there will be restriction of through traffic to travel north of the city.	
	impacted	There is the possibility for flooding to exceed the height of the levees, if this happens flood waters will enter Invermay and Inveresk.	

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 the flood prone areas of East Launceston and the city areas you may be impacted by flood waters 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 <u>SES website</u> or <u>Red Cross Rediplan</u>.

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. childcare, 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	Warm clothes, sturdy shoes or boots		
batteries	Medicine, glasses or other essential items		
Important information, such as your emergency plan	Mobile phone and phone charger		
A list of emergency numbers	Pet food and anything else they need		
Food and water	Photos and special keepsakes		
First aid kit	Important documents, for exampleinsurance paperspassports and		
Rubber or strong leather gloves			
	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 <u>Bureau of Meteorology's</u> 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

- 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 <u>City of Launceston Emergency Management Hub</u>

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
 - o water over roads
 - o damaged powerlines
 - o landslides
 - o damaged roads
 - o 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.ses.tas.gov.au or www.launceston.tas.gov.au/Emergency-Management-Hub

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.



Staying informed and further information

Current warnings (TasALERT) <u>alert.tas.gov.au</u>

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 <u>ses.tas.gov.au/plan-prepare/flood</u>

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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