

Surf Coast

Municipal Emergency Management Plan

Flood and Storm Sub-plan

DRAFT: Version 2

Reviewed April 2026



Acknowledgement of Traditional Owners

Surf Coast Municipal Emergency Management Planning Committee acknowledges the Wadawurrung People, and the Gulidjan and Gadubanud Peoples of the Eastern Maar nation as the Traditional Owners of the lands we now call the Surf Coast Shire.

We pay our respects to Elders past and present, and all other Aboriginal and Torres Strait Islander People who are part of our Surf Coast Shire community.

We are committed to working with Aboriginal and Torres Strait Islander communities to achieve a shared vision of safer and more resilient communities.

Acknowledging Lived Experience: unequal burden of disaster impacts

Disasters don't discriminate, but their impacts are felt unevenly across our community. We acknowledge this unequal burden and recognise the lived experience of those who are overexposed and underrepresented in disaster and emergency management.

Impacts on connection to Country and place, culture and identity, family and kinship, community and belonging are not equally distributed or equally connected. These are dimensions of wellbeing that shape how people experience, survive, and recover. Their loss or disruption compounds harm in ways that conventional measures of impact often miss.

Factors such as age, gender, disability, and socioeconomic circumstance shape individual experience, and these interact in ways that create distinct and compounding vulnerabilities. All work under the Municipal Emergency Management Plan commits to recognising, understanding, and actively reducing these unequal burdens, across all dimensions of wellbeing.

Authority

The Flood and Storm Sub-plan has been prepared by VICSES on behalf of, and in collaboration with the Surf Coast Municipal Emergency Management Planning Committee (MEMPC). It was prepared in accordance with, and complies with the requirements of the *Emergency Management Act 2013* including having regard to the guidelines issued under section 77, [*Guidelines for Preparing State, Regional and Municipal Emergency Management Plans*](#) (the *Guidelines*).

It was endorsed by the Surf Coast MEMPC on {DATE: MONTH/YYYY} as a sub-plan to the Surf Coast Municipal Emergency Management Plan (MEMPC). A Statement of Assurance for this plan was approved by the Barwon South West Regional Emergency Management Planning Committee (REMP) on {DATE: MONTH/YYYY}.

This sub-plan was published on the [VICSES website](#) on {DATE: MONTH/YYYY}.

Any printed hard copies of this Flood and Storm Sub-plan are considered 'uncontrolled documents' and may not reflect the most current or updated version.

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1. Introduction

1.1 Aim

The aim of this Municipal Emergency Management Plan (MEMP) Flood and Storm Sub-plan (MFSSP or the 'Sub-plan') is to detail the local arrangements for before, during, and after flood and storm incidents within the municipal footprint.

1.2 Objectives

The objectives of this Sub-plan are to:

- Align with the State Emergency Management Planning Framework and broader emergency management arrangements, including consideration of State Control Priorities.
- Describe flood and storm risks that may affect people, property, and/or the environment within the municipal area, informed by risk assessments and studies.
- Support the implementation of measures to avoid or minimise future risk and reduce existing vulnerabilities, with consideration to the causes and consequences of flood and storm incidents.
- Manage residual risk by promoting access to accurate, timely and locally relevant information to reduce the consequences of flood and storm incidents.

1.3 Authorising environment

This is an updated version of the Surf Coast MEMP Flood and Storm Sub-plan (MFSSP). It replaces and supersedes the Surf Coast Shire Municipal Flood Emergency Plan (MFEP) June 2014.

This plan is a Sub-plan of, and aligns with the [Surf Coast Municipal Emergency Management Plan \(MEMP\)](#)¹. It is consistent with the [State Emergency Management Plan](#)² (SEMP) and in alignment with the core capabilities of the [Victorian Preparedness Framework](#)³.

Comments and feedback on this Sub-plan are welcome and should be sent to ust.barwon@ses.vic.gov.au.

Surf Coast MEMPC is the owner of this MFSSP, pursuant to *Part 6A of the Emergency Management Act 2013* (as amended).

To the extent possible, this Sub-plan does not conflict with, or duplicate, any other plans in relation to emergency management that are currently in force within Australia as per the *Emergency Management Act 2013 60AC(c)*.

¹[Surf Coast Municipal Emergency Management Plan \(MEMP\)](#): www.surfcoast.vic.gov.au/Community/Emergencies-and-safety/Councils-role-in-emergencies.

² [State Emergency Management Plan](#): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-semp

³ [Victorian Preparedness Framework](#): www.emv.vic.gov.au/how-we-help/emergency-management-capability-in-victoria/victorian-preparedness-framework

Section 60AI (2) of the Emergency Management Act 2013 allows the Municipal Emergency Management Planning Committee (MEMPC) and Emergency Management Victoria (EMV) to exclude information that is related to critical infrastructure, personal information or information that is of a commercially sensitive nature.

In line with its roles and responsibilities set out in the SEMP, the Victoria State Emergency Service (VICSES) has developed this plan in collaboration with the MEMPC. The plan reflects the outcomes of the Community Emergency Risk Assessment (CERA) process undertaken by the MEMPC.

Development of this Sub-plan has included consultation with key agencies and organisations involved in the flood and storm preparedness, response, and recovery. The local knowledge, expertise, and contributions of these stakeholders have been vital in shaping the arrangements and strategies outlined in this plan.

1.4 Exercise, evaluation, and review

This plan will be reviewed and updated at least every three years, with consideration given to earlier revisions as required to ensure the plan provides for a current, integrated, coordinated, and comprehensive approach to flood and storm emergencies, and consideration of potential escalation of climate-related hazards.

Earlier reviews may be triggered by this plan being applied in a major emergency or exercise or following a flood study, a significant change in flood mitigation measures, a substantial change to relevant legislation or arrangements, including the State Emergency Management Plan (SEMP).

1.4.1 Exercise

The Municipal Emergency Management Planning Committee (MEMPC) is responsible for organising exercises to test this Sub-plan, which should be conducted within the plan's lifecycle. These may include exercises led by individual agencies as well as opportunities to test the Sub-plan during actual flood or storm events. Ideally, exercises will be scheduled shortly before the period of highest risk for floods and storms, typically during winter and spring.

The flood and storm arrangements were tested during events in 2022 and January 2026, with lessons learned incorporated into this version. The MEMPC and agencies will continue to identify and deliver opportunities to test this Sub-plan, ensuring arrangements remain current and effective through both planned exercises and lessons learned from real flood and storm events.

1.5 Audience and linkages

1.5.1 Audience

The primary audience for this Sub-plan is local government and emergency management agencies operating within the municipality, including business and community organisations that play a role in the management of flood and storm emergencies. While the plan is primarily designed for operational and planning purposes, it may also provide useful information for members of the community.

1.5.2 Linkages

This Sub-plan does not operate in isolation. It is integrated within the broader emergency management planning framework that guides flood and storm management at the state, regional, municipal, and local level.

This plan refers to a range of existing resources related to floods and storms, aligns with the direction set by relevant plans and policies, and includes links to further information for the reader.

Access to operationally sensitive information may require a login. This includes documents stored on the Emergency Management Common Operating Picture ([EM-COP](#))⁴, such as [Joint Standard Operating Procedures \(JSOPs\)](#)⁵. Documents stored on the VICSES Intranet, such as Standard Operating Procedures (SOPs) and supporting operational information, require a VICSES login but can be obtained by contacting a VICSES representative.

The sub-plan is consistent with and supports:

- [State Emergency Management Plan](#)⁶ (SEMP)
- SEMP [Flood Sub-plan](#)⁷, SEMP [Storm Sub-plan](#)⁸
- [South West \(Barwon\) Regional Emergency Response Storm Plan](#)⁹
- [South West \(Barwon\) Regional Emergency Response Flood Plan](#)¹⁰
- [The Municipal Emergency Management Plan \(MEMP\)](#)¹¹
- Community Local Flood Guides (LFGs):
 - [Aireys Inlet](#)¹²

⁴ [Emergency Management Common Operating Picture](#) (EM-COP): www.cop.em.vic.gov.au

⁵ [Joint Standard Operating Procedures \(JSOPs\)](#): www.files-em.em.vic.gov.au/public/JSOP/EMV-JSOP.htm

⁶ [State Emergency Management Plan](#): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-semp

⁷ [SEMP Flood Sub-plan](#): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-sub-plans/semp-flood-sub-plan

⁸ [SEMP Storm Sub-plan](#): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-sub-plans/semp-storm-sub-plan

⁹ [South West \(Barwon\) Regional Emergency Response Storm Plan](#): www.ses.vic.gov.au/about-us/state-and-regional-emergency-plan

¹⁰ [South West \(Barwon\) Regional Emergency Response Flood Plan](#): www.ses.vic.gov.au/about-us/state-and-regional-emergency-plans

¹¹ Surf Coast Municipal Emergency Management Plan (MEMP): www.surfcoast.vic.gov.au/Community/Emergencies-and-safety/Councils-role-in-emergencies

¹² [Community Local Flood Guide \(LFG\) Aireys Inlet](#): www.ses.vic.gov.au/plan-and-stay-safe/flood-guides/surf-coast-shire-council

1.5.3 Supporting Operational Documentation

This Sub-plan provides overarching arrangements for managing flood and storm events within the municipality. It is supported by a series of Annexes that contain operational or sensitive information maintained by VICSES. These annexes are available to authorised personnel through a VICSES representative as required.

Support operational document(s)
Flood Intelligence and VICSES Response Arrangements for Flood and Storm in the municipality:
▪ Annex A – Flood and storm threats for municipality
▪ Annex A1 – Flood evacuation arrangements
▪ Annex B – Typical flood peak travel times
▪ Annex C – Localities and at-risk communities
▪ Annex D – Maps and schematics
▪ Annex E – Storm damage and specific response arrangements
▪ Annex F – Flood and storm warning systems

Table 1. Flood Intelligence and VICSES Response Arrangements for Flood and Storm in the Surf Coast Shire.

1.5.4 Hyperlinks

Documents or resources that are referred to frequently throughout this plan (such as the State Emergency Management Plan [SEMP](#)¹³) may not be hyperlinked in each instance.

All hyperlinks were accurate at time of publication and currency of the linked content remains the responsibility of the host agency.

¹³ [State Emergency Management Plan](http://www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-semb): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-semb

2. The emergency context

2.1 Risks

The following section provides an overview of flood-related risks across the municipality, including information on major waterways, drainage systems, dams, and a summary of significant historical flood and storm events.

The municipality is vulnerable to severe weather and flooding throughout the year. A Community Emergency Risk Assessment (CERA) conducted by the Municipal Management Planning Committee (MEMPC) has identified riverine flooding, flash flooding, storm surge, and storms as key risks to the community.

The major river and creek systems that are subject to periodic flooding are along the coast, except for the inland catchment of the Barwon River. The coastal river and creeks consist of sand blocked estuarine systems that are occasionally opened naturally, but in general need to be manually opened.

The municipality is subject to multiple significant storm events annually. These events are typically driven by flash flooding and damaging winds, which can result in widespread impacts to the community and critical infrastructure. The area has a high transient tourist population during peak periods, due to popular beaches, attractions, caravan parks, and major events.

There are several Barwon Water storage dams throughout the municipality. There are also two large dry lakes - Lake Modewarre and Lake Murdeduke. There are many waterways that begin and end within the municipality, either discharging into Bass Strait or flowing into other waterways. The waterways within the Otway Ranges are short in distance and may be susceptible to flash flooding or short duration floods.

A specific outline of the municipality in terms of its location, demography, and other general matters is provided in the Municipal Emergency Management Plan (MEMP). For more detailed information refer to **Annex A** Flood and storm threats for the Surf Coast Shire (operational use only).

2.1.1. Riverine flooding

Large riverine flood events within the municipality generally occur when moist, warm airflows from northern Australia generate moderate to heavy rainfall over extended periods (12 hours or more). These events are often preceded by prolonged rainfall that saturates the catchment, fills on-stream storages, and reduces natural floodplain capacity, resulting in significantly increased runoff during the main rain event.

Less severe, but still notable, riverine flooding may also result from a succession of winter and spring cold fronts. These systems progressively wet the catchment and elevate water levels in creeks, rivers, and reservoirs, with major flooding likely when prolonged moderate to heavy rainfall follows.

The municipality contains approximately 25 named waterways, spanning inland agricultural areas, the Otway Ranges, and the coastal fringe of the Great Ocean Road. The Barwon River is the largest waterway in the municipality, originating in the Colac Otway Shire and flowing north-east through Winchelsea before continuing through Golden Plains and Greater Geelong to Bass Strait. Other waterways, particularly those in the Otway Ranges and coastal catchments, are short, steep, and can respond rapidly to rainfall, contributing to both riverine and flash flooding.

Many coastal rivers and creeks form sand-barred estuarine systems that may open naturally or require manual intervention. When closed, these systems can back up and increase localised inundation risk.

Areas with known riverine flood risk include:

DRAFT (Community Consultation) - Surf Coast MEMP Flood and Storm Plan Sub-plan (MFSSP) - April 2026 v2.1 (002)

- Aireys Inlet (Painkalac Creek): Prolonged rainfall north-west of the township can fill the Painkalac Reservoir and cause overland flow through the Painkalac Creek floodplain, with potential overtopping across the Great Ocean Road.
- Lorne (Cumberland River): The Cumberland River and adjoining floodplain, including the holiday park, have experienced multiple flood events in recent years.
- Winchelsea and surrounds: The Barwon River presents a significant flood risk to Winchelsea and surrounding areas, with potential inundation of low-lying properties and disruption to key transport routes, including Winchelsea–Deans Marsh Road.
- Torquay and surrounds (Thompson Creek): Overflow from Thompson Creek can contribute to erosion and damage to infrastructure, including Horseshoe Bend Road and Ghazeepore Road.
- Jan Juc and surrounds (Jan Juc Creek): Over-road flooding from Jan Juc Creek can disrupt access and impact properties, including along Hoylake Avenue, Duffields Road and surrounding streets.

Riverine flooding within the municipality can lead to widespread inundation of land and property, isolation of communities, and disruption to road networks and critical infrastructure for days to weeks, depending on the scale and duration of rainfall.

2.1.2. Flash flooding

The municipality is susceptible to short-duration, high-intensity rainfall events, particularly during the high-risk weather season, which can result in rapid, localised flash flooding. These events occur when intense rainfall exceeds the capacity of stormwater drainage systems and natural overland flow paths, causing water to accumulate quickly in low-lying or poorly drained areas. Flash flooding is more likely when rainfall rates exceed approximately 20mm per hour, particularly in urbanised environments, and may occur outside traditional waterways such as rivers and creeks.

Flash flooding generally develops with little warning and can produce fast-moving water capable of damaging property, isolating sections of the community, and disrupting critical infrastructure.

Localities with known flash flood risk include:

- Lorne (Erskine River): Intense rainfall has previously resulted in significant flash flooding through the river corridor, including impacts to the local caravan park.
- Cumberland River: Heavy rainfall has caused rapid flooding around the camping ground and surrounding low-lying areas.
- Anglesea: Several buildings in low-lying parts of Anglesea are vulnerable to flash flooding.

2.1.3. Severe weather and storms

Severe thunderstorms and associated extreme weather conditions, such as tornadoes or microbursts, can have significant impacts on the community, built environment and essential services. While severe thunderstorms may affect large areas, tornadoes and microbursts in Victoria are typically highly localised, often impacting only one or two suburbs. Despite their limited geographic footprint, these events can cause intense and concentrated damage.

Destructive winds can also result in structural failures, including the dislodgement of cladding and falling glass and solar panels, posing safety hazards for pedestrians and building occupants.

The municipality will expect 2 to 3 severe storm events annually in the months spanning August to March, encompassing both winter cold fronts and summer thunderstorm activity.

Typical consequences of severe storm events include:

- Wind damage to residential and commercial buildings
- Uprooted or fallen trees causing property damage and blocking roadways
- Localised flash flooding
- Large hail
- Road damage and temporary road closures
- Power outages
- Disruption to telecommunications services
- Discharge/overflow of sewer systems
- Waste collection bins content discharged into waterways and storm water systems
- Impacts on critical infrastructure (e.g. health, water, energy, transport)
- Entrapment of people in homes or vehicles due to fallen trees or floodwater
- Epidemic Thunderstorm Asthma (ETSA)

In the municipality, the most frequent types of storm-related damage involve fallen trees or tree limbs, as well as damage to roof structures and infrastructure from high winds and heavy rain. Internal flooding can result from surface water inundation or roof and ceiling failures, often due to blocked or poorly maintained drainage systems, or inadequate guttering that fails to divert water away from the building.

2.1.4. Flood and inundation impacts on local roads and stormwater infrastructure

The nature and extent of flood impacts across the municipality varies significantly depending on the type and duration of rainfall event. Short, sharp storm events typically affect urban stormwater infrastructure, while prolonged rainfall, particularly at certain times of year, tends to impact rural and urban-fringe areas with little effect on urban drainage systems.

Road inundation is a recurring concern during heavy rainfall, with closures frequently occurring at roads that cross fords, notably along Thompson Creek (Horseshoe Bend Road, Ghazeepore Road, Pettavel Road, Willowite Road, and Hunts Road) and at the Barwon River crossing on Kildean Road. Water over road has also been recorded at Wainewrights Lane, Mt Pollock Road, and other locations across the municipality.

2.1.5. Epidemic Thunderstorm Asthma (ETSA)

Epidemic Thunderstorm Asthma (ETSA) is a potential consequence of severe storm events during the high pollen season, typically between 1 October and 31 December. These events may occur when high pollen levels combine with specific thunderstorm conditions, leading to a rapid increase in respiratory illness across the community.

ETSA response is led by the Department of Health (DH) and is a significant consideration during storm events as it can place increased demand on health services and may coincide with severe weather impacts, compounding the overall consequences of an event.

ETSA may also impact the safety and availability of responders, including VICSES staff and volunteers. Those with pre-existing respiratory conditions need to take precautions. ETSA is also known to affect people

with no previous respiratory history, so all staff should be monitored whilst working outside during ETSA forecasts.

Certain areas may experience higher exposure due to environmental and geographic factors.

2.1.6. Storm surges

Storm surge events occur when low-pressure weather systems and strong onshore winds generate an abnormal rise in sea level, which can elevate coastal water levels above predicted tides. When storm surge coincides with high or incoming tides, the risk of coastal inundation increases significantly. These elevated water levels can impede the discharge of stormwater systems, reduce drainage capacity, and in some cases cause backflow through pits, channels, and overland flow paths, resulting in localised flooding.

The municipality's proximity to the open coast along Bass Strait, combined with low-lying coastal terrain, makes coastal communities particularly vulnerable to the impacts of storm surge. Climate change is expected to increase the frequency and severity of these events through rising sea levels, increased storm intensity, and accelerated coastal erosion. This presents ongoing risks to coastal townships, buildings, public infrastructure, and natural dune systems.

Multiple storm surge events in recent years have impacted sections of the municipality, highlighting the increasing vulnerability of the coastline under changing climate conditions.

Localities with known storm surge risk include:

- Aireys Inlet / Painkalac Creek: This area experiences recurrent coastal erosion and inundation associated with storm surge and high astronomical tides.

2.2 Municipality major waterways, drains, and dams

There are approximately 25 named waterways, including rivers, creeks, and water bodies within the municipality. The main waterway is the Barwon River which begins within the Colac Otway Shire to the west and traverses its way through the Surf Coast Shire to the north and into Golden Plains Shire and then onto through the City of Greater Geelong before it discharges into Bass Strait.

Waterway	Description
Rivers	
Anglesea River	The Anglesea River rises in the Otway Ranges and flows through the township of Anglesea before entering Bass Strait. The river and surrounding reserve are key features of the town and are used for a range of recreational and commercial activities, including fishing, swimming, canoeing, and walking.
Barwon River	The Barwon River originates in the Otway Ranges and flows through multiple municipalities, including Colac Otway Shire, Surf Coast Shire, Golden Plains Shire, and the City of Greater Geelong. It flows into Lake Connemara before reaching Bass Strait at Barwon Heads and is fed by numerous tributaries across the catchment.
Cumberland River	The Cumberland River rises in the Otway Ranges and flows into Bass Strait via the Cumberland River valley. It passes through the Cumberland River Holiday Park and is joined by tributaries including Garvey Creek.
Erskine River	The Erskine River rises in the Otway Ranges and flows through the township of Lorne before entering Bass Strait east of Cape Otway.

St George River	The Saint George River starts below Mount Cowley and flows into Bass Strait at Loutit Bay. It is fed by several tributaries, including Cora Lynn Creek and Henderson Creek.
Creeks	
Deans Marsh Creek	Deans Marsh Creek rises in the Otway Ranges and flows through the township of Deans Marsh before joining the Barwon River near Birregurra.
Grassy Creek	Grassy Creek rises inland and flows through rural areas before entering Bass Strait at Loutit Bay.
Jan Juc Creek	Jan Juc Creek rises west of the township of Jan Juc and flows through semi-rural and urban areas before entering Bass Strait.
Merrijig Creek	Merrijig Creek starts in semi-rural land and meanders its way through farms and open country before it flows in Thompsons Creek.
Moggs Creek	Moggs Creek rises in the Otway Ranges and flows through the township of Moggs Creek before entering Bass Strait.
Painkalac Creek	Painkalac Creek flows through the township of Aireys Inlet and includes the Painkalac Dam, which forms part of the local water supply system.
Penny Royal Creek	Penny Royal Creek starts near Benwerrin in the Otway Ranges and flows into the Deans Marsh Creek west of the Deans Marsh township.
Thompson Creek	Thompson Creek flows through rural and coastal areas before entering Bass Strait at Breamlea Rice Reserve and Dans Reserve located along sections of the creek are managed by Surf Coast Shire Council.
Spring Creek	Spring Creek rises near Bellbrae and flows through Bellbrae and Torquay before entering Bass Strait.
Lakes	
Lake Modewarre	Lake Modewarre is a large inland lake within the municipality that supports recreational and environmental values when full.
Lake Murdeduke	Lake Murdeduke is located in the north-western part of the municipality near Winchelsea. The lake and surrounding land are managed by Council in partnership with Parks Victoria.

Table 2. Waterways within the Surf Coast Shire

2.2.1 Dam spilling / failure

Flooding resulting from dam failure is likely to cause significant structural and community damage within the municipality. Note that if the storage capacity is reached and water flows over the spillway this is not referred to as a flow release or a storage breach or failure.

The Department of Energy, Environment and Climate Action (DEECA) has developed the [Dam safety response plan](#)¹⁴ to support the management of its obligations in relation to dam safety incidents. Agency representatives can also refer to the relevant [Dam safety regulations](#)¹⁵ for further guidance.

¹⁴ [Dam safety response plan](http://www.water.vic.gov.au/water-sources/victorias-dams/dam-safety-management): www.water.vic.gov.au/water-sources/victorias-dams/dam-safety-management

¹⁵ [Dam safety regulations](http://www.water.vic.gov.au/water-sources/victorias-dams/dam-safety-regulation): www.water.vic.gov.au/water-sources/victorias-dams/dam-safety-regulation

Registered emergency plans are available in FloodZoom¹⁶ which requires a login. Inquiries regarding FloodZoom access should be directed to accounts@floodzoom.vic.gov.au.

Dams and reservoirs located within the Surf Coast Shire that have registered emergency plans or have been identified as high risk are listed below.

Name	Location	Owner
Wurdee Boluc Reservoir	Wurdee Boluc	Barwon Water
Allen Reservoir	Lorne	Barwon Water
Painkalac Reservoir	Aireys Inlet	Barwon Water
580 Winchelsea - Deans Marsh Road	Winchelsea	Private dam registered with DEECA and Southern Rural Water (SRW)
Mathisons Road	Winchelsea	Private dam registered with DEECA and Southern Rural Water (SRW)
Dicksons Road	Winchelsea South	Private dam registered with DEECA and Southern Rural Water (SRW)
Wurdale Road	Winchelsea South	Private dam registered with DEECA and Southern Rural Water (SRW)
Wurdale Road	Winchelsea South	Private dam registered with DEECA and Southern Rural Water (SRW)
Pintail Dam, Horseshoe Bend Road	Torquay	Private dam registered with DEECA and Southern Rural Water (SRW)

Table 3. Dams and reservoirs within the Surf Coast Shire with registered emergency plans or identified as high risk.

For further dam related information refer to **Annex A** Flood and storm threats for the Surf Coast Shire (operational use only).

¹⁶ [FloodZoom: www.floodzoom.vic.gov.au](http://www.floodzoom.vic.gov.au)

2.2.2 Surf Coast Shire Waterways and Drainage Map



Map produced by VECSDS September 2023.

SURF COAST SHIRE

1% AEP (100yr ARI) Flooding

C. Waterways and Drains Map

- Major Waterway
- Stream, Channel or Drain
- Waterbody
- Surf Coast Shire boundary

- Water Level & Rain Gauge
- Water Level Gauge
- Rain Gauge



This map publication is presented by the Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by the 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.

2.3 History of Municipal flood and storm emergencies

The Surf Coast Municipal Emergency Management Plan (MEMP)¹⁷ details a brief history of all major emergencies that have occurred within the municipality.

The following list summarises the most significant recent flood and storm events recorded in the municipality based on their impact and consequences.

Date	Event
January 2026	Localised severe weather event caused flash flooding along the Great Ocean Road, with 180mm of rainfall recorded in a 6-hour period. Cumberland River Holiday Park was evacuated and Lorne experienced significant flooding.
December 2023	Cumberland River Holiday Park experienced flash flooding, with a large group of campers moved to higher ground. A sizeable log was stuck under the bridge causing flooding from the backlog.
October 2022	Severe storms and flash flooding across the municipality.
January 2022	Significant storm event caused widespread flash flooding throughout Anglesea and Airey's Inlet. Calvary Cordelia Grove Aged Care facility experienced extensive flooding and sewerage contamination; 45 residents were evacuated; 98mm in Anglesea and 96mm in Aireys Inlet was recorded over a 48hr period (Bureau of Meteorology (BoM) data).
January 2022	Heavy rainfall events (100-115mm) associated with La Nina weather conditions; elevated flood risk experienced across multiple catchments.
2021-22 (ongoing event)	Painkalac Creek artificial openings increased as a flood risk management intervention.
October 2021	Storm event resulted in trees down throughout the municipality, with 15 residential properties impacted.
January & September 2021	Cumberland River Holiday Park experienced flash flooding requiring cars to be relocated and campers to evacuate the park.
October 2020	Dam leak at Pintail Drive, Torquay posed a potential failure risk; 120 houses were evacuated as a precaution.
October 2016	Widespread flooding affected 80 properties and 52 hectares across the municipality, with associated infrastructure damage.
January 2015	Torquay tornado, extensive damage to roof of Bunnings store and property damage throughout Torquay.
November 2007	Cumberland River Caravan Park evacuated due to flash flooding.

Table 4. Significant recent flood and storm events recorded in the Surf Coast Shire

For additional response information refer to **Annex A** Flood and storm threats for the Surf Coast Shire (operational use only).

2.3.1 Significant flood events – gauge levels

The shire has experienced several significant flood events where heavy rainfall or rising stream levels have impacted properties and infrastructure. However, it's uncommon for a single storm to affect all catchments in

¹⁷ Surf Coast Municipal Emergency Management Plan (MEMP): www.surfcoast.vic.gov.au/Community/Emergencies-and-safety/Councils-role-in-emergencies

the area, except during extreme weather. Different parts of the municipality can respond very differently to the same event, depending on location and catchment characteristics.

For instance, rainfall and creek levels vary significantly between monitoring points along Barwon River. This highlights how localised flooding can be, even within the same weather event.

Most waterways within the municipality are not supported by Bureau of Meteorology flood forecasting, monitoring or river height alerting services.

For historical gauge levels refer to **Annex A** Flood and storm threats for the Surf Coast Shire (operational use only).

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3. Managing flood and storm emergencies

3.1 State Emergency Management Priorities

The State Emergency Management Priorities that are outlined in the [State Emergency Management Plan \(SEMP\)](#)¹⁸ guide all decisions before, during, and, after any emergency, and apply to all aspects of this plan.

3.2 Roles and responsibilities

An agency that has a role or responsibility under this plan must act in accordance with the plan.

There are a few agencies with specific roles that will act in support of VICSES and provide support to the community in the event of a serious storm or flood within the municipality. These agencies will be engaged through the Incident Emergency Management Team (IEMT).

Land managers, including Parks Victoria and the Great Ocean Road Coast and Parks Authority (GORCAPA), support response and recovery activities within their areas of responsibility and are engaged through the Incident Emergency Management Team (IEMT) as required. Their specific roles include:

Great Ocean Road Coast and Parks Authority (GORCAPA)

- **Floodplain management and flood response:** Provides flood mapping information and flood advice and provides real-time access to stream flow data collection for flood warning purposes.
- **Dam safety:** Manages escalated response activities to minimise the impact on the community and environment from dam safety incidents; manages local dam safety incidents for dams owned or operated by DEECA.

Parks Victoria

- Provides trained Incident Management Team and field operations staff, under FFMVic, to support VICSES' response to floods, severe storms, and earthquakes, particularly within parks, reserves, rivers, and waterways managed by Parks Victoria.

The general roles and responsibilities of supporting agencies are as detailed in the [MEMP](#)¹⁹, [SEMP](#), [SEMP Flood Sub-plans](#)²⁰ and [SEMP Storm Sub-plan](#)²¹.

¹⁸ [State Emergency Management Plan](#): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-semp

¹⁹ [Surf Coast Municipal Emergency Management Plan \(MEMP\)](#): www.surfcoast.vic.gov.au/Community/Emergencies-and-safety/Councils-role-in-emergencies

²⁰ [SEMP Flood Sub-plan](#): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-sub-plans/semp-flood-sub-plan

²¹ [SEMP Storm Sub-plan](#): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-sub-plans/semp-storm-sub-plan

3.3 Mitigation and preparedness

3.3.1 Floodplain Management Strategy

The Victorian Floodplain Management Strategy sets the policy and accountability framework for flood related mitigation activities in Victoria. The [Victorian Floodplain Management Strategy](#)²² sets out the implementation of flood mitigation activities for the Region, including for the municipality.

3.3.2 Structural flood mitigation measures

Structural flood mitigation measures are any physical construction to reduce or avoid possible impacts of flood hazards, or the application of engineering techniques or technology to achieve flood hazard resistance and resilience in structures or systems.

Council has established an RV-friendly 48-hour stopover area in Winchelsea, permitting overnight parking for self-contained recreational vehicles, caravans, and motorhomes for up to 48 hours. The site is located along the Barwon River and is accessed via Barwon Terrace, past the public pool. Signage is in place outlining parking conditions, flood risk information, and site closure requirements. A flood alert beacon is installed at the site entrance; when activated (flashing), the area is closed to users.

For more detailed flood intelligence and VICSES response arrangements surrounding structural flood mitigation measures refer to **Annex C** Localities and at-risk communities for the Surf Coast Shire (operational use only).

3.3.3 Planning controls

Flood mitigation within the municipality is supported through planning scheme controls such as the Land Subject to Inundation Overlay (LSIO), Floodway Overlay (FO), and Special Building Overlay (SBO), which guide development in flood-prone areas. These overlays help manage flood risk by ensuring appropriate building siting, floor levels, and drainage requirements. The planning controls work alongside building regulations and the National Construction Code to support safer, more resilient development across the municipality.

Planning overlays play a critical role in reducing flood risk by mandating floor levels above the predicted flood level, requiring new developments to incorporate adequate drainage measures, and protecting overland flow paths from being obstructed.

Council is proactively applying these planning tools to assess new proposals, regularly updating overlays as new flood modelling becomes available, and advocating for stronger planning provisions across Victoria to further support community resilience.

In addition to guiding new development, planning controls also respond to changes in flood risk identified through updated and improved flood modelling. This modelling can reveal new risks to existing properties.

Climate change is projected to increase flood risk across the municipality, resulting in an expansion of areas subject to inundation and increased flood depths for existing at-risk properties. This is consistent with the objectives of Clause 13.01-1S (Climate Change Impacts) of the Victorian Planning Provisions, which requires the consideration of climate-related risks, including flooding, in land use planning and decision-making.

²² [Victorian Floodplain Management Strategy](http://www.water.vic.gov.au/our-programs/floodplain-management/victorian-floodplain-management-strategies): www.water.vic.gov.au/our-programs/floodplain-management/victorian-floodplain-management-strategies

These projections are based on the best available information at the time of assessment and may be subject to change as climate modelling and planning controls continue to evolve.

The adopted climate change assumptions and resulting flood extents are based on the best available modelling and guidance at the time of this study; however, it is recognised that the full extent of climate change impacts, as well as the associated policy and planning controls, are subject to ongoing refinement as further data and updated guidance become available.

3.4 Community resilience

A resilient community is socially connected and has infrastructure that can withstand disaster or shocks and foster community recovery. Resilient communities support the wellbeing of individuals and the community, effectively use available resources, and foster cohesion to strengthen their capacity both in everyday life and during extreme events.

Key considerations in strengthening community resilience within the municipality include:

- Relief-in-place capability: Supporting townships and communities to safely remain in place during extended events, including for multi-day periods where isolation or access constraints may occur. This includes alignment with Council arrangements and guidance from Emergency Management Victoria (EMV) (formerly ERV) regarding relief-in-place planning and community preparedness.
- Community understanding of flood types and preparedness planning: Improving community awareness of the differences between stormwater flooding, flash flooding, and riverine flooding, including how each may impact properties and access, and the appropriate preparedness and response actions.
- Community risk awareness through CERA: Facilitating Community Emergency Risk Assessment (CERA) sessions and workshops to build local understanding of hazards, vulnerabilities, and consequences, and to support shared ownership of risk across agencies and the community.
- Targeted flood study engagement: Undertaking community engagement and information sessions associated with local flood studies, including in areas such as Painkalac Creek and Anglesea River, to ensure communities understand local flood behaviour, risks, and mitigation measures.

Several communities within the municipality have formed community emergency planning groups, these include:

- Wensleydale
- Anglesea
- Aireys Inlet
- Lorne

3.4.1 Flood and storm specific community education and engagement

Community education and engagement are essential to building awareness of flood and storm risks and supporting preparedness across the municipality. Relevant programs and resources empower people to make informed decisions and to be equipped, both emotionally and physically, to take appropriate action before, during, and after emergencies.

Flood and storm risks cannot be fully mitigated, and a shared responsibility is vital. VICSES, with the support of Council and other agencies, will coordinate and deliver targeted community flood and storm engagement programs by:

- Providing accurate preparedness information through media, publications, and engagement activities
- Facilitating and supporting community programs, events, and targeted initiatives
- Offering technical advice to ensure resources remain accurate and relevant
- Working with schools, businesses, and organisations to strengthen planning and preparedness
- Contributing to exercises, forums, and community engagement opportunities
- Acting as liaisons during events to ensure clear and consistent communication

Community members are encouraged to:

- Understand their flood and storm risk
- Prepare by developing a home emergency plan and emergency kit (see the [VICSES website](#)²³)
- Stay informed and follow emergency services' advice during warnings
- Engage in community programs, events, and resources such as Local Flood Guides, targeted initiatives, and develop Community Emergency Management Plans (CEMPs).
- Participate in emergency planning at facilities such as schools, lifestyle, and residential aged-care facilities and businesses

3.4.2 Public information and warnings for flood and storm emergencies

The State Emergency Management Plan (SEMP) Flood Sub-Plan and the SEMP Storm Sub-Plan detail the arrangements for public information and warnings for flood and storm. *VICSES SOP008 Severe Weather Notification and Activation Process* and *VICSES SOP009 Flood Notification and Activation Process* outline in detail the actions that VICSES will undertake upon receipt of a Severe Weather Warning or Flood Watch/Flood Warning from the Bureau of Meteorology.

The Incident Controller (IC), through the Public Information Unit established at the Incident Control Centre (ICC), will manage public information and warnings. If the ICC is not established, the VICSES Regional Duty Officer (RDO) and VICSES Regional Agency Commander (RAC) are responsible for managing all public communication. Council will work with the IC/VICSES to assist with the dissemination of public messaging and/or warnings to ensure that consistent and timely messaging occurs.

A range of warning systems may be utilised to support flood and storm response within the municipality, including Emergency Alert, the Standard Emergency Warning Signal (SEWS), and community alert sirens. The use of these systems is determined by the Incident Controller in accordance with relevant Joint Standard Operating Procedures (JSOPs) and state arrangements. Further detail on warning systems operating within the municipality is provided in the Surf Coast Municipal Emergency Management Plan (MEMP).

²³ [VICSES website](http://www.ses.vic.gov.au/plan-and-stay-safe/at-home): www.ses.vic.gov.au/plan-and-stay-safe/at-home

The table below summarises the flood and storm warnings issued on VicEmergency. Visit the [Australian Warning System \(AWS\) website](https://www.australianwarningsystem.com.au/)²⁴ for further information.

Flood Symbol	Storm Symbol	Warning Level	Community Action
		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 action is required now to protect community safety
		Emergency Warning (Red)	An emergency warning is the highest level of warning. Action needs to be taken immediately, any delays puts life at risk.

Table 5. Flood and storm warnings issued on VicEmergency.

Details on warnings issued by VICSES through [VicEmergency](https://www.vicemergency.vic.gov.au/respond/)²⁵ and VICSES channels, including for areas or impacts not covered by a Bureau of Meteorology (BoM) warning, are outlined in **Annex F** Public information and warning systems for the Surf Coast Shire (operational use only).

²⁴ [Australian Warning System \(AWS\) website](https://www.australianwarningsystem.com.au/): www.australianwarningsystem.com.au/

²⁵ [VicEmergency](https://www.vicemergency.vic.gov.au/respond/): [www.emergency.vic.gov.au/respond/](https://www.vicemergency.vic.gov.au/respond/)

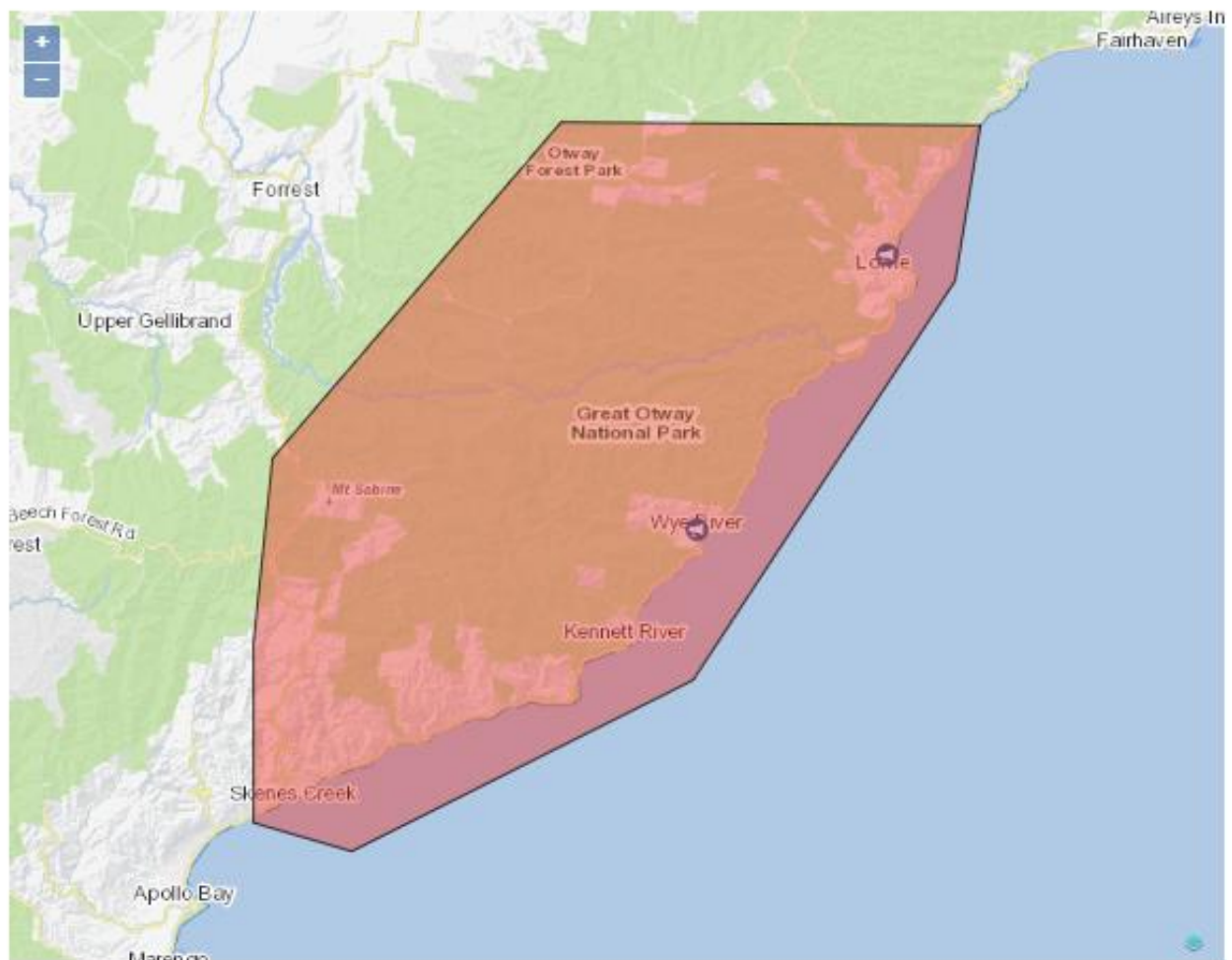
3.4.3 BoM flood warning example



EMERGENCY WARNING - FLOOD

Incident Location: Wye River, Kennett River, Cumberland River, Lorne and surrounds
Incident Name: SW-15-jan
Issued: Thursday 15 January 2026, 02:36 pm
Next Update Expected: Thursday 15 January 2026, 05:40 pm

Map



Message

This Flash Flood Emergency Warning is being issued for Wye River, Kennett River, Cumberland River, Lorne and surrounds.

- Very dangerous conditions are being caused by a severe thunderstorm and flash flooding.
- You can stay safe by avoiding flooded and low-lying areas.
- Floodwater can be very deep, rise quickly and move fast.
- Be aware that heavy rainfall may also increase the potential for landslides and debris across roads.

If you are located in Wye River, Kennett River, Cumberland River, Lorne and surrounds, you are in danger. You should immediately move indoors and shelter, away from floodwater. Do not enter floodwater.

What you should do:

- Floodwater is dangerous - never enter floodwater.
- If you are in a life threatening emergency or if you need rescuing, call Triple Zero (000). For emergency assistance from the SES, call 132 500.

If you are inside:

- Stay inside and monitor conditions.
- If floodwater comes inside, move to a higher point such as a kitchen bench or second story.
- Follow your emergency plan, if you have one.
- Contact family members and neighbours to ensure they are aware of the situation, if safe to do so.

If you are outside:

- Try to shelter in a safe place indoors.
- If you cannot shelter indoors, stay well away from trees, drains, low lying areas and floodwater.

If you are driving:

- Floodwater is dangerous - do not drive through floodwater.
- Find alternative travel routes if roads or underpasses are flooded.
- Be aware of road hazards such as mud, debris, damaged roads and fallen trees.
- If driving conditions are dangerous, pull over in a safe location away from trees, drains, low lying areas and floodwater.

Impacts in your area:

- Homes and buildings have been flooded.
- Roads or bridges have been flooded, including the Great Ocean Road.
- Local caravan parks have been impacted.
- There is a risk of landslips and landslides.

166 mm has been recorded in the Mt Cowley area since 9am.

This message was issued by State Emergency Service.

The next update is expected by 15/01/2026 05:40 pm or as the situation changes.



3.4.4 Flood intelligence

Flood intelligence supports decision making and planning for flooding by providing reliable and accurate information relating to:

- The expected level, depth, and velocity of floodwater and its consequences
- Determination of actions to be undertaken in response to the identified consequences.

The Department Energy, Environment, and Climate Action (DEECA) maintains the [FloodZoom](https://www.floodzoom.vic.gov.au)²⁶ flood intelligence platform. Inquiries regarding FloodZoom access should be directed to accounts@floodzoom.vic.gov.au.

For more detailed flood intelligence and VICSES response arrangements refer to **Annex C** Localities and at-risk communities for the Surf Coast Shire (operational use only).

3.4.5 Cross-border collaboration and 'area of operations'

The area of operations concept is detailed within the SEMP and provides flexibility to managing flood and storm response when it is geographically located across several municipalities where it encourages collaboration between municipalities as part of the Victoria's Emergency Management Planning Framework and the Victorian Preparedness Framework.

Surf Coast Shire Council is a signatory to the Municipal Association of Victoria (MAV) Protocol for Inter-Council Emergency Resource Sharing. These protocols provide a framework to support coordinated access to resources across councils when local capacity is exceeded during flood or storm events.

Surf Coast Shire Council, Colac Otway Shire and Corangamite Shire have formed the Otway District Relief and Recovery Collaboration. This involves a Cross Council Relief and Recovery Committee, a joint emergency relief and recovery plan, resource sharing arrangements in responses, planning, and training, including those relating to flood and storm operations.

3.5 Local knowledge

As control agency for flood and storm in Victoria, VICSES is committed to incorporating local knowledge into decision making before, during, and after incidents. This is guided by the [VICSES Local Knowledge Policy](#)²⁷ (VICSES access only).

Local knowledge is a critical component of effective planning and operations. Communities and partner organisations can provide valuable insights into local hazards, historical impacts, and how incidents may evolve. This plan supports the capture and use of relevant local knowledge across all phases of emergency management.

As an incident escalates from local control to a broader incident management structure, it is essential that local knowledge is retained and effectively integrated. This includes embedding local subject matter expertise within divisional and sector command structures where appropriate.

There are no formal Community Flood Observer programs within the municipality, however local knowledge has been incorporated into this plan through consultation with local response agencies. Agency staff, including Council officers, often have established relationships with local residents who are well placed to provide on-ground observations and assist with verification of information. These relationships can provide valuable intelligence to support both planning and incident information gathering.

²⁶ [FloodZoom](https://www.floodzoom.vic.gov.au): www.floodzoom.vic.gov.au

²⁷ [VICSES Local Knowledge Policy](#): www.vicses.sharepoint.com

For previous event history and likely operational considerations refer to **Annex C** Localities and at-risk communities for the Surf Coast Shire (operational use only).

Local knowledge should also include an understanding of cross-boundary impacts and shared resource demands for neighbouring municipalities, particularly where flood risk complexities may influence operational response and recovery activities.

3.5.1 Field observers

Field Observers provide local knowledge to VICSES and the Incident Control Centre regarding local insights and the potential impacts and consequences of an incident and may assist with the dissemination of information to community members.

Torquay and Lorne Units have trained Field Observers who can be deployed to gather intelligence in areas impacted by both flood and storm events.

VICSES SOP073 outlines the role of the Field Observer and process for their activation which is via the VICSES RDO.

3.5.2 Drone support

To support intelligence gathering during flood and storm operations, drone capability may be provided by Fire Rescue Victoria (FRV) and Life Saving Victoria (LSV). Requests are to be facilitated through the VICSES RAC and coordinated by the VICSES SAC, or the relevant authorised control agency.

All drone operations must comply with Civil Aviation Safety Authority (CASA) and LSV Remotely Piloted Aircraft Operator's Certificate (ReOC) procedures. Flight plans are to be submitted in advance and aligned with IMT requirements ensure safe integration with other aircraft and airspace users.

Deployment is subject to weather and operational limitations. During large-scale incidents, or where conditions restrict drone operations, deployment will be coordinated in consultation with the IMT and within the control agency framework.

3.6 Response (including relief)

3.6.1 Activation of response

VICSES may be notified of flood and storm incidents through several sources, but the most common source is calls received via 132 500 or if the emergency is life threatening, Triple Zero (000). Other sources are via other emergency management agencies and local government. In most cases, these events are of a small scale (a level 1 incident), which local VICSES units manage without significant outside support.

In the case of more significant level 2 (regional level) or level 3 (an incident that has high complexity and may have statewide implications) flood and storm response arrangements may be activated by the VICSES Barwon South West Regional Duty Officer (RDO) or Regional Agency Commander (RAC).

The VICSES IC/RDO/RAC will activate agencies as required as documented in the [SEMP Flood sub-plan](#)²⁸ or [SEMP Storm sub-plan](#)²⁹.

3.7 Concept of Operations

The State Emergency Management Plan (SEMP) defines the responsibilities of the Incident Controller (IC), Incident Control Centre (ICC), Incident Management Team (IMT) and Incident Emergency Management Team (IEMT).

3.7.1 Control

Sections 5(1)(b) and 5(1)(c) of the [Victoria State Emergency Service Act 2005](#)³⁰ detail the authority for VICSES to respond to storms and floods.

The Role Statement within the SEMP identifies VICSES in its response functions as the [Control Agency for flood and storm](#). It identifies the Department of Energy, Environment, and Climate Action (DEECA) as the [Control Agency responsible for dam safety as well as reticulated water and wastewater \(sewerage\) service](#).

All flood and storm response activities within the municipality including those arising from a dam failure or retarding basin/levee bank failure incident will therefore be under the control of the appointed Incident Controller, or delegated representative.

3.7.2 Incident Control Centre (ICC)

The ICC may be activated in advance based on the severity of warnings and in accordance with VICSES readiness arrangements:

- [VICSES readiness and activation levels – flood](#)³¹ (VICSES login required)
- [VICSES readiness and activation levels – severe weather](#)³² (VICSES login required)

3.7.3 Escalation

Resourcing and event escalation arrangements are described in the State Emergency Management Plan (SEMP).

3.8 Considerations for operating with other agencies and stakeholders

As other agencies are deployed to assist, the IC should consider the following actions:

- Establish a communications plan to enable the tasking of other agency resources, which should be included in briefings.

²⁸ [SEMP Flood Sub-plan](#): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-sub-plans/semp-flood-sub-plan

²⁹ [SEMP Storm Sub-plan](#): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-sub-plans/semp-storm-sub-plan

³⁰ [Victoria State Emergency Service Act 2005](#): www.legislation.vic.gov.au/in-force/acts/victoria-state-emergency-service-act-2005/025

³¹ [VICSES readiness and activation levels – flood](#): www.vicses.sharepoint.com

³² [VICSES readiness and activation levels – severe weather](#): www.vicses.sharepoint.com

- Embedding and determining an agreed response to downed powerlines as this is often a predominant hazard for storm events.
- Ensuring other agency personnel who are undertaking the Emergency Management Liaison Officer (EMLO) roles have access to EM-COP.
- Preparing a briefing to support in-coming other agency resources to identify:
 - staging area location and any safety issues with accessing it (closed roads/powerlines down)
 - resources available such as re-supply of consumables (tarps/sandbags)
 - welfare arrangements
 - duty time limitations (these should be consistent with *VICSES SOP003 Fatigue Management and Duty Time Limitations*)

3.8.1 Natural environment and cultural considerations for response

Response activities will identify and consider areas of cultural significance. Where emergency works have the potential to impact culturally sensitive sites, the Incident Controller will seek advice from a Country Advisor. Given that these events often affect areas of high cultural sensitivity, early engagement is important to inform decision-making. The most significant impacts are typically experienced during the recovery phase (refer to the recovery section below).

3.9 Initial Impact Assessment

As part of the [Victorian Preparedness Framework](#)³³, the [SEMP](#)³⁴ and [SEMP flood sub-plan](#)³⁵ outline agency responsibilities and core capabilities for flood and storm impact assessments.

3.10 Storm Response Arrangements

In the initial response phase, VICSES Units will receive RFA's direct from Triple Zero Victoria and will typically respond in a business-as-usual mode, typically attending events in order of receipt or priority. This is in accordance with the *VICSES Operations Management Manual*.

For more detailed storm damage specific response arrangements refer to **Annex E** Storm damage and specific response arrangements for the Surf Coast Shire (operational use only) and the Surf Coast Municipal Emergency Management Plan (MEMP).

3.11 Evacuation Arrangements

³³ [Victorian Preparedness Framework](http://www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-semp/roles-and-responsibilities/agency-roles-and-responsibilities-alignment-to-victorian-preparedness-framework): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-semp/roles-and-responsibilities/agency-roles-and-responsibilities-alignment-to-victorian-preparedness-framework

³⁴ [State Emergency Management Plan](#) (SEMP): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-semp

³⁵ [SEMP Flood Sub-plan](#): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-sub-plans/semp-flood-sub-plan

Under the State Emergency Management Plan (SEMP), Victoria Police (VicPol) has the responsibility for evacuation (Evacuation Manager) in consultation with the control agency and other expert advice.

The IC is responsible for decision making in consultation with VicPol as to whether evacuation is a safe option for communities and individuals.

In making this decision the IC may seek advice from other agencies or communities, as detailed in [JSOP 03.12 – Planned Evacuation for Major Emergencies](#)³⁶.

3.11.1 Caravan/holiday park evacuation

Caravan and holiday park operators are responsible for maintaining a current Emergency Management Plan (EMP), including evacuation procedures for flood and storm events.

Park operators are responsible for providing a copy of the EMP to Council's Environmental Health Officer (EHO) on a triennial basis.

Where required, park operators should provide relevant evacuation information to emergency services to support planning and response activities.

During an incident, evacuation of caravan and holiday parks will be coordinated by the IC, in consultation with VicPol and park management, and in alignment with broader Incident Management Team (IMT) arrangements.

For more detailed evacuation arrangements refer to **Annex A1** Flood evacuation arrangements for the Surf Coast Shire (operational use only) and the Surf Coast MEMP.

3.12 Response to flash flooding

Flash flooding can be defined as flooding that occurs within six hours or less of the flood-producing rainfall within the affected catchment. Pre-event planning for flash floods should assume that that evacuation is the primary response strategy, where it can be implemented safely and effectively.

Emergency management response to flash flooding should be consistent with the SEMP Storm Sub-plan.

Flash flood behaviour within the municipality is influenced by short, steep coastal catchments, which can result in rapid onset flooding with limited warning time. This presents increased risk to vulnerable locations such as caravan parks and foreshore areas. Assumptions regarding flash flood behaviour and impacts are based on current flood intelligence and will continue to evolve as further information becomes available.

3.12.1 Caravan/holiday park flash flooding risk

Several caravan and holiday parks, as well as foreshore areas within the Surf Coast Shire are susceptible to flash flooding due to their proximity to waterways, steep catchments, and coastal influences. These locations can experience rapid inundation with limited warning, particularly during intense rainfall or storm events, posing risks to visitors, infrastructure, and access routes.

Based on historical events and geographical location, the table below identifies the parks as at medium to high risk of flash flooding impacts. Emergency management plans are developed by caravan park operators

³⁶ [JSOP 03.12 – Planned Evacuation for Major Emergencies](#): www.files-em.em.vic.gov.au/public/JSOP/EMV-JSOP.htm

and/or relevant land managers and can be obtained upon request through the park operator or the relevant land managing authority.

Park	Risk
Cumberland River Holiday Park	Highly susceptible due to steep upstream, catchment and rapid runoff into the Cumberland River
Lorne Foreshore Caravan Park	Exposure to both riverine flooding (Erskine River) and coastal storm surge
Erskine Falls Reserve	Flash flooding risk along creek lines and access tracks
Anglesea Family Caravan Park	Susceptible to flooding from Anglesea River and estuary dynamics
Aireys Inlet Foreshore	Flooding risk near Painkalac Creek and coastal inundation
Moggs Creek Reserve / Picnic area	Rapid localised flooding due to small, steep catchment
Jan Juc Creek Reserve	Flash flooding along creek corridor during heavy rainfall
Torquay Foreshore Caravan Park	Coastal inundation and stormwater flooding during severe weather

Table 6. Caravan and holiday parks within the municipality including potential risk impacts.

Park emergency management plans are to be periodically reviewed and, where applicable exercised annually or at intervals appropriate to risk.

For more detailed response to flash flooding arrangements refer to **Annex E** Storm damage specific response arrangements for the Surf Coast Shire (operational use only) and the Surf Coast MEMP.

3.13 Flood rescue

Under Victoria's emergency management arrangements, rescue is considered separately to the relocation of people who are stranded or isolated by floodwater. Where the water is either fast or swift flowing and/or the people being assisted are facing actual or threatened danger of physical harm, the response escalates from relocation to rescue.

Under the [SEMP Response table 9](#)³⁷ the control agency for rescue from land and water is VicPol, who operate the State Police Search and Rescue Coordination Centre (SPSARCC). VICSES is a support agency for search and rescue on land and water evacuations and incidents involving mass casualties.

To conduct water rescues during a flood, VicPol will often require assistance of appropriately trained and equipped personnel from support agencies including VICSES, Volunteer Marine Search and Rescue Organisations, CFA, FRV, and Life Saving Victoria. VicPol will coordinate with these agencies to ensure operational readiness for activation.

On occasion, VicPol may opt to respond with a field capability of its Rescue Coordination Centre to a location near the emergency. It may also work with Triple Zero Victoria to deploy its dispatch capability to the same location to enhance rescue coordination and dispatch. Details in this plan may assist VicPol and Triple Zero Victoria in undertaking this function in the field or from the primary SPSARCC.

³⁷ [State Emergency Management Plan \(SEMP\) Response table 9](#): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-semp/roles-and-responsibilities/response

Refer to **Annex C** Localities and at-risk communities for the Surf Coast Shire (operational use only) for known high-risk areas/communities (such as low-lying islands) where rescues might be required.

3.14 Aircraft management

Aircraft can be used for a variety of purposes during flood operations including evacuation, resupply, reconnaissance, intelligence gathering, and emergency travel. Note, use of aircraft can be limited during extreme weather events.

The IC controls the conduct of air support operations.

3.15 Animal welfare

The Department of Energy, Environment, and Climate Action (DEECA) is the lead agency for animal welfare response during emergency events.

[Agriculture Victoria \(AgVic\)](#)³⁸ will manage the welfare of livestock and companion animals (including feeding, water and rescue) as well as emergency supply and/or delivery of fodder to stranded livestock or for livestock rescue.

Forest Fire Management Victoria (FFMVic) will respond to the welfare of [wildlife impacted by an emergency event](#)³⁹.

The [Victorian Emergency Animal Welfare Plan](#)⁴⁰ provides an outline of animal welfare management during emergencies.

Surf Coast Shire Council is the lead for housing displaced lost/stray domestic animals. This includes supporting domestic animals and their owners within an Emergency Relief Centre.

3.16 Essential community infrastructure and property protection

Essential community infrastructure and property such as residences, businesses, roads, and utilities may be affected in the event of a flood.

VICSES maintains a stockpile of empty sandbags, noting that sand is not supplied. Council also maintains a limited stock of empty sandbags for the protection of assets under its responsibility; however, this does not extend to the protection of private property. The Incident Controller will determine priorities for the allocation and use of sandbags, consistent with strategic response priorities.

The *VICSES Operations Management Manual* sets out the principles for sandbag use and allocation to the community. These principles do not apply to the use of sandbags by VICSES to construct and/or alter a levee. Refer to *Sandbag filling and collection point guide* and *SOP036 Construction, Removal or Altering of Levee and Removal of Debris* for further detail.

³⁸ [Agriculture Victoria \(AgVic\)](http://www.agriculture.vic.gov.au/farm-management/emergency-management/emergency-animal-welfare): www.agriculture.vic.gov.au/farm-management/emergency-management/emergency-animal-welfare

³⁹ [Wildlife impacted by an emergency event](http://www.wildlife.vic.gov.au/wildlife-emergencies/wildlife-emergencies): www.wildlife.vic.gov.au/wildlife-emergencies/wildlife-emergencies

⁴⁰ [Victorian Emergency Animal Welfare Plan](http://www.agriculture.vic.gov.au/farm-management/emergency-management/emergency-animal-welfare/victorian-emergency-animal-welfare-plan): www.agriculture.vic.gov.au/farm-management/emergency-management/emergency-animal-welfare/victorian-emergency-animal-welfare-plan

The IC will ensure that owners of essential community infrastructure are kept advised of the flood situation. Essential community infrastructure providers must keep the IC informed of their status and ongoing ability to provide services.

Refer to the VICSES website for the most current [sandbag guidelines and collection points](#)⁴¹.

For more specific details of essential infrastructure requiring protection and location of sandbag collection point(s) refer to **Annex C** Localities and at-risk communities for the Surf Coast Shire (operational use only).

3.16.1 Disruption to services

Disruption to services other than essential community infrastructure and property can occur in flood and storm events.

For more detailed arrangements of likely disruption to services and proposed arrangements to respond to service disruptions refer to **Annex C** Localities and at-risk communities for the Surf Coast Shire (operational use only).

3.16.2 Traffic management

In the event of an unplanned disruption across the Council and Department of Transport and Planning (DTP) road network, traffic management measures may be implemented. These can include road closures, adjustments to warning signage, and the use of road barriers. Such measures may be applied to local and regional roads, bridges, and shared walking and cycling paths, and may involve the observation, placement, and maintenance of appropriate warning signs and roadblocks.

Supporting agencies will liaise with Victoria Police where possible to develop a traffic management plan. This plan may include traffic diversion routes, which should be established further away from the immediate flooded or storm-affected area to minimise traffic congestion and avoid vehicles needing to turn around.

DTP, VicPol and Council will communicate community information regarding road closures as outlined in the Surf Coast MEMP. Council will provide public information on road closures through appropriate communication channels.

For detailed arrangements relating to potential road closures, refer to **Annex C** Localities and at-risk communities for the Surf Coast Shire (operational use only).

3.16.3 Traffic Management Plan

Traffic management will be undertaken in accordance with JSOP 03.10 Traffic Management at Major Emergencies. The Incident Controller (IC), who has overall responsibility for incident control, will consult with Victoria Police and, where possible, the responsible road authority to develop, implement, and monitor a Traffic Management Plan. Within the municipality, Department of Transport (DTP) is responsible for the arterial road network, while Council is responsible for local and regional roads, bridges, and trails. Victoria Police will coordinate the restriction of access to affected areas as directed by the IC and may support the enforcement of closures and roadblocks.

Road closures should be entered into the Road Information Database (RID) by the responsible authority for the affected road to support timely public communication. Road closure information is made available to the community via [VicTraffic](#).

⁴¹ [VICSES website sandbag guidelines and collection points](#): www.ses.vic.gov.au/plan-and-stay-safe/sandbag-guide

Traffic management arrangements must ensure safe egress for affected residents and businesses, and access for emergency services. This includes maintaining effective movement of vehicles along the length of the impacted area.

Where control of a road is returned from the IC to DTP and Council, both organisations will have the opportunity to inspect the road prior to reopening to the public.

3.17 Access to technical specialists

VICSES manages contracts with private specialists who can provide technical assistance in the event of flood operations or geotechnical expertise. The Regional Controller (RC) or delegate (e.g. VICSES RDO or IC) should make a formal request to the VICSES State Duty Officer (SDO) for the engagement of a Flood Analyst or Technical Specialist. *VICSES SOP061 Technical Specialists* outlines this detail, including the procedure for accessing technical specialists.

These services may be required particularly where Catchment Management Authority or Local Government staff are unable to assist in an ICC. Specifically, they can provide the following key professional services:

- flood intelligence (flood analysts)
- geotechnical assessments

3.18 Relief

Relief is the provision of assistance to meet the essential needs of individuals, families, and communities during and in the immediate aftermath of an emergency.

Suitable relief facilities identified for use during storms and/or floods, along with the associated relief arrangements are considered restricted information. This information can be obtained by agencies through the Surf Coast Shire Municipal Recovery Manager (MRM), Municipal Emergency Management Officer (MEMO) or VicPol Municipal Emergency Response Coordinator (MERC). All community will be advised of the location and relevant details once a facility has been activated during a flood and/or storm event.

As per the [role statement for municipal councils](#)⁴² within the SEMP, municipal councils are responsible for municipal relief coordination.

Refer to the [Otway District Collaboration Emergency Relief and Recovery Plan](#)⁴³ and the [Barwon South West \(Regional\) Relief and Recovery Plan](#)⁴⁴.

3.18.1 Activation of emergency relief

⁴² [State Emergency Management Plan \(SEMP\) role statement for municipal councils](#) /www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-semp/roles-and-responsibilities/role-statements/role-statement-municipal-councils:

⁴³ [Otway District Collaboration Emergency Relief and Recovery Plan](#): www.surfcoast.vic.gov.au/About-us/Council/Policies-plans-strategies-and-reports/Plans-and-strategies

⁴⁴ [Barwon South West \(Regional\) Relief and Recovery Plan](#): www.surfcoast.vic.gov.au/About-us/Council/Policies-plans-strategies-and-reports/Plans-and-strategies

Refer to the [SEMP Roles and Responsibilities - Relief](#)⁴⁵ for more detail of services that may be provided and the responsible coordinating agencies. Arrangements for relief from a flood and/or storm event within the municipality are detailed in the Surf Coast MEMP.

3.18.2 Resupply

Communities, neighbourhoods, or households can become isolated during floods and in some cases, storms. This can be due to road closures or damage to roads, bridges, and causeways. Under such circumstances, the need may arise to resupply isolated communities/properties with essential items.

When predictions/intelligence indicates that communities, neighbourhoods and/or households may become isolated, VICSES will advise all community members to prepare by stocking up on essential items, which may include medication.

After the impact, VICSES can support isolated community members by assisting with the transport of essential items and providing logistics support.

Resupply operations are included as part of the emergency relief arrangements, with VICSES working alongside relief agencies to service all isolated communities.

For more detailed arrangements/information refer to **Annex C** Localities and at-risk communities for the Surf Coast Shire (operational use only).

3.19 Recovery

As per the [role statement for municipal councils](#) within the State Emergency Management Plan (SEMP), municipal councils are responsible for coordinating recovery activities at a local level. Council is also the lead agency for coordinating post-emergency needs assessments to inform long term recovery requirements.

Arrangements for recovery from a flood and/or storm event within the municipality are detailed in the Surf Coast Municipal Emergency Management Plan (MEMP).

3.19.1 Transition from response to recovery

The SEMP sets out the transition to recovery arrangements. During the response phase, the IC will ensure they develop a plan for transition from response to recovery. The IC will initiate the transition from recovery, working with the Municipal Recovery Manager (MRM), as it marks the end of the response phase which the IC leads and manages.

3.19.2 Natural environment and cultural heritage recovery

Local recovery planning will recognise and respect culturally significant places, Country, and the health and wellbeing of Aboriginal communities. Recovery activities should support the involvement of Traditional Owner organisations and Cultural Heritage Advisors to enable culturally informed approaches that minimise harm to Country, culture, and community.

At the municipal level, Council coordinates recovery activities and will engage with the Traditional Owner organisations as appropriate. This supports culturally informed recovery outcomes and aligns with Victoria's commitment to self-determination.

⁴⁵ [State Emergency Management Plan \(SEMP\) Roles and Responsibilities - Relief](#): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-semp/roles-and-responsibilities/relief#table12

Emergency Management Victoria (Relief and Recovery) provides regional coordination and may support engagement with Traditional Owners, particularly during larger or multi-municipality events.

The Department of Energy, Environment, and Climate Action (DEECA) is the lead agency for environmental recovery and works with relevant stakeholders, including Traditional Owners, to support environmental restoration and rehabilitation.

The integration of Traditional Owner knowledge, cultural values, and practices within flood recovery planning will continue to evolve as partnerships, policy, and guidance develop over time.

3.19.3 Cultural Rejuvenation After Flood

Great Ocean Road Coast and Parks Authority (GORCAPA) engage Cultural Heritage Advisors to support post-flood recovery activities. GORCAPA is responsible for determining whether land is an Area of Cultural Heritage Sensitivity, noting that much of the coastal area is likely to meet this definition. Where high-impact activities are proposed, Cultural Heritage Management Plans (CHMPs) must be prepared or required in accordance with legislative requirements.

3.20 After action review – lessons management

Lessons management is the critical process of learning from how we worked before and during an event, to improve the system for next time.

Depending on the size and scale of the flood or storm event, VICSES will normally coordinate a debrief or after-action review of flood or storm operations as soon as practical following an event. Under the [VicPol SEMP role statement](#)⁴⁶, it is the responsibility of the Municipal Emergency Response Coordinator (MERC) to recommend that this occurs.

When the flood is being managed as a level 3 event, Emergency Management Victoria (EMV) in consultation with VICSES may assume responsibility for debriefing.

All agencies involved in the flood incident should be represented at the debrief or after-action review.

⁴⁶ [Victoria Police \(VicPol\) State Emergency Management Plan \(SEMP\) role statement](http://www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-semp/roles-and-responsibilities/role-statements/role-statement-victoria-police): www.emv.vic.gov.au/responsibilities/state-emergency-management-plan-semp/roles-and-responsibilities/role-statements/role-statement-victoria-police