

Municipal Emergency Management Planning

South Gippsland



Community Emergency Risk Assessment Process 2021 and Risk Treatment Plan

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Amendment History

Version	Author	Update Details	MEMPC Approval Date
1.1	James Bremner	Added History of emergencies information from 2018-2021 MEMP and CERA Risk Assessment Sheets	6/8/2021
1.2	James Bremner	Updates to Risk Treatment Plan and CERA Risk Assessment Sheets	22/2/2022
1.3	James Bremner	Updates to Risk Treatment Plan – no change to risk information confidence, residual risk etc	24/5/2022
1.4	James Bremner	Updates to Risk Treatment Plan details regarding risk treatment actions.	22/11/2022
1.5	James Bremner	Updates to Risk Treatment Plan details regarding risk treatment actions.	28/2/2023

Background

Community Emergency Risk Management is a process which aims to reduce risks within a community. This can be done by identifying the risks that a community faces, assessing the vulnerability of the community to those risks and providing options to reduce or eliminate the risks.

Emergencies of some kind or another occur every day within a municipality. Most emergencies in South Gippsland (such as house fires and traffic accidents) are routinely controlled at the incident level, with local resources and without broader consequences or communications needs.

However, some emergencies have implications beyond the incident level that require specific actions: they need more resources, have greater consequences and recovery needs or need messages sent to broader groups of people. In these cases, regional, state or area of operation arrangements may be enacted to support the incident.

The aim of emergency risk management and the CERA process is to promote public safety and reduce the impact of these emergencies.

Community Emergency Risk Assessment (CERA)

Community Emergency Risk Assessment (CERA) is an all hazards risk assessment tool which aims to identify, mitigate and reduce risk within the community following the Australian Standard for risk management, ISO 31000.

The Community Emergency Risk Assessment (CERA) provides the South Gippsland MEMPC with a framework for considering and improving the safety and resilience of the community from hazards and emergencies.

The CERA approach aims to understand the likely impacts of a range of emergency scenarios upon community assets, values and functions. As such, CERA provides an opportunity for multiple community impacts and consequences to be considered enabling collaborative risk treatment plans and emergency preparedness measures to be described.

The CERA Tool provides a robust framework for the MEMPC to identify and prioritise those emergency risks that are likely to create most disruption to the community. The assessment helps to identify and describe hazards and assess impacts and consequences based upon the vulnerability or exposure of the community or its functions.

The outputs of the assessment process will be used to inform emergency management planning, introduce risk action plans and ensure that communities are aware of and better informed about hazards and the associated emergency risks that may affect them. All agencies involved with the process have considered their communities to ensure local contexts inform mitigation activities.

2021 Identification of risks to be considered

At the South Gippsland Shire MEMPC meeting in February 2021 the CERA process for 2021 was discussed. The MEMPC recognised that the MEMPC conducted a detailed CERA process in 2017 and identified the following risks to include in the 2018-21 MEMP.

Risk	Ratings Confidence	Residual Risk Rating
Severe Weather Event	High	High
Human Epidemic / Pandemic	Medium	Medium
Heat Health	Medium	High
Wilsons Promontory - Visitor Economy	High	High
Exotic Animal Disease	High	High
Service Disruption – Electricity	High	High
Marine Pollution	High	Medium
Fire - Structure (significant)	High	Medium
Bushfire Significant	High	High
Food / Water Supply Contamination	High	Medium

It was agreed that these risks would form the basis for the 2021 process and there was an action on the MEMPC members to provide details (name of risk, potential impacts, subject matter expert/control agency) to Council of any new or emerging risks that pose a significant threat to the South Gippsland community that should be considered as part of this process.

New or emerging risks identified by the Committee would be presented to the MEMPC core membership formed under the Emergency Management Act 2013 (EM Act 2013) who would consider them along with the 10 current MEMP risks.

Core MEMPC Members

Organisation	Name	Role
South Gippsland Shire Council	Luke Mullen	Chair
Victoria Police	Brad Steer	Municipal Emergency Response Coordinator
Country Fire Authority	Bill Alards	Commander
Ambulance Victoria	Ben Minchin	Senior Team Manager
Victoria State Emergency Service	David Bartley	Regional Officer – Emergency Management
Australian Red Cross	Jay Jay Edmondson	Divisional Operations Officer
Department of Health and Human Services (DFFH)	Sarah Vickers	Senior Emergency Management Coordinator

The Core MEMPC group were tasked with agreeing on risks that will be reviewed using the CERA process. Relevant subject matter experts (SME) would be identified and invited to attend and present on certain risks that will be assessed by the MEMPC core membership. No further risks were suggested by the MEMPC and the risks from 2018/21 MEMP Plan were used as the basis for the 2021 CERA process.

CERA Online 2021

CERA Online is the risk assessment tool that can be used by MEMPCs to complete this process. CERA Online is a cloud-based platform, delivering an easy to use and accessible risk assessment tool to relevant stakeholders. CERA Online assists MEMPCs to participate in an efficient and effective risk assessment process.

The South Gippsland MEMPC are one of the first users of the system which has been developed to be used by all Victorian municipalities. For this reason, the Hazard titles were changed to fit with the new system and there was no opportunity to have Wilsons Promontory - Visitor Economy as a specific risk. Storm and Flood also needed to be separated which had previously been considered as Severe Weather Event.

Risk 2018	Risk 2021
Severe Weather Event	Storm
Severe Weather Event	Flood
Human Epidemic / Pandemic	Public Health
Heat Health	Extreme Temperatures (heat and cold)
Wilsons Promontory - Visitor Economy	n/a
Exotic Animal Disease	Outbreak
Service Disruption - Electricity	Essential Service Disruption
Marine Pollution	Hazardous Materials Release
Fire - Structure (significant)	Urban fire
Bushfire Significant	Bushfire/ Grassfire
Food / Water Supply Contamination	Outbreak

The CERA process considers these hazards in the context of

- Likelihood/ Frequency
- Consequence Rating
- Existing Controls
- Confidence level to ratings
- Identify opportunities to improve collaboration
- Residual risk rating

The CERA process outcomes will be used to support the development of a new MEMP 2021, to identify potential additional membership of the MEMPC and additional EM planning requirements.

Background work completed

Information in the CERA Online tool was transferred from the 2018 CERA Spreadsheets. A review by SGSC Emergency Management Coordinator and SES Regional Officer – Emergency Management identified some gaps in the data and improvement opportunities to enable a more consistent review to be completed.

The online CERA Risk Assessment for each Hazard was updated using a number of current emergency management documents that contained relevant information.

The CERA Risk Assessment was updated using information taken from the [Emergency Risks in Victoria \(July 2020\) | Emergency Management Victoria \(emv.vic.gov.au\)](#) (July 2020). This publication reports the results of Victoria's state-level emergency risk assessment. It contains information about Victoria's significant emergency related risks, including the institutional arrangements in place to manage these risks. This information was used to update the Hazard Description, to support the localised rationale and to identify the Causes and/or Contributing factors

The Victorian State Emergency Management Plan (SEMP) contains information in its roles and responsibilities section around mitigation activities and agencies for managing Victoria's significant emergency risks.

[SEMP Roles & Responsibilities - September 2020 - Participating agencies for mitigation.pdf \(emv.vic.gov.au\)](#)

The document lists the 15 emergency risks assessed as significant for the State and relevant mitigation activities. It also identifies participating agencies who could be involved in any aspect of the mitigation activity, including regulatory oversight and policy development. The SEMP Participating agencies for mitigation was used to identify causes and/or contributing factors and to identify high level mitigations.

Key descriptions from the CERA participant handbook were used to describe the impacts of the hazard - Who or What, Vulnerability and/or Exposure and Likely Impact.

[Community Emergency Risk Assessment \(CERA\) - www](#)

These updated CERA Risk Assessment for each Hazard were then shared with the identified Subject Matter Expert for feedback and with the MEMPC Core membership who would be completing the CERA process. These documents are included in section CERA Risk Assessment Sheets for South Gippsland 2021 and will be reviewed by relevant SMEs on an annual basis.

CERA 2021 Process

A day was set aside to complete the CERA process for South Gippsland. A detailed presentation was developed in relation to the 4 recovery environments relating to South Gippsland to provide the core MEMPC group completing the CERA process with information and data that would help with their assessment of the hazards and their likely impacts on the community across the 4 recovery environments:

Social - ... the direct and indirect effects an event may have on the health and wellbeing of individuals, families and communities. This environment is primarily concerned with safety, security and shelter, health and psychosocial wellbeing.

Economic - ... the direct and indirect effects an event may have on businesses, primary producers and the broader economy.

Built - ... the effects an event may have on essential physical infrastructure including essential services, commercial and industrial facilities, public buildings and assets and housing.

Natural - ... the effects an event may have on a healthy and functioning environment, which underpins the economy and society. Components of the natural environment include air and water quality; land degradation and contamination; plant and wildlife damage/loss; and national parks, cultural and heritage sites.

An overview of emergency event history was also provided to the group.

Subject Matter Experts were invited to provide an overview of the hazard and likely impacts. Likely impacts considered vulnerability and exposure to the hazard in the context of how resilient the community might be to the impacts. The presentations also provided details on some of the mitigation currently in place.

Risk	SME
Background to South Gippsland and impacts of Wilsons Promontory on the Visitor Economy	Council
Severe Weather Event (Flood/Landslip)	SES
Human Epidemic / Pandemic	DFHHS
Heat Health	DFHHS
Fire - Structure (significant)	CFA
Exotic Animal Disease	AG Vic (Council)
Marine Pollution	Gippsland Ports
Bushfire Significant	CFA/DELWP
Service Disruption – Electricity	SP Ausnet
Food / Water Supply Contamination	Council

The CERA participants were then asked to vote on their understanding of

- Confidence in Risk Rating
- Maximum Foreseeable Consequence
- Likelihood / Frequency
- Mitigation / Control Effectiveness
- Collaboration at a municipal and State level

This produced data on

- Residual Risk Rating
- Residual Consequence

The information gathered within the CERA process provides a platform for broadly assessing each emergency risk and determining the priority, type and level of responsive action. It helps inform the level and type of action to be taken relative to each risk and influences the development of a treatment plan.

CERA 2021 Outputs

Hazard	Description	Confidence in RR	Residual RR	Max Foreseeable Consequence	Mitigation / Control Effectiveness	Residual Consequence	Likelihood / Frequency	Collaboration - Other LGAs	Collaboration - State
Outbreak	Food & Water Contamination Water Supply	Medium	Medium	2.74	2.14	2.6	3.14	Maintain	Maintain
Essential Services Disruption	Electricity Supply impacts	High	Medium	3	2.43	2	4	Maintain	Maintain
Urban Fire	Significant residential or industrial fire	High	High	3	2.14	2.5	3.71	Maintain	Maintain
Bushfire/ Grassfire	Bushfire/ Grassfire	High	High	3	2.14	2.5	4	Maintain	Maintain
Hazardous Materials Release	Oil and hazardous/other noxious substances in to marine environment	Medium	Low	3.71	2.43	2.06	2.43	Maintain	Maintain
Outbreak	Emergency animal disease	Medium	Medium	3.83	1.64	2.5	3	Maintain	Maintain
Extreme Temps (heat and cold)	Heatwave or cold snap	High	Medium	2.71	2.14	1.8	4	Maintain	Maintain

Hazard	Description	Confidence in RR	Residual RR	Max Foreseeable Consequence	Mitigation / Control Effectiveness	Residual Consequence	Likelihood / Frequency	Collaboration - Other LGAs	Collaboration - State
Storm	Windstorms, storm tides, severe thunderstorms, hailstorms, tornadoes, and heavy rain.	High	Medium	3.86	2.5	2.43	4.29	Maintain	Maintain
Public Health	Pandemic or similar	High	High	3.86	2.71	2.83	3.83	Maintain	Maintain
Flood	Riverine or stormwater flooding	High	Low	2.71	2.57	2	2	Maintain	Maintain

The following SES tables were used to consider Maximum Foreseeable Consequence, Likelihood / Frequency and Mitigation / Control Effectiveness

Consequence

Insignificant	Minor	Moderate	Major	Catastrophic
1	2	3	4	5

Control Strength/effectiveness

High	Medium	Low	Very Low
1	2	3	4

Likelihood level

Almost Certain	Likely	Unlikely	Rare	Very Rare
5	4	3	2	1



Community Emergency Risk Assessment (CERA) Placemat

Table 1: Consequence Rating Table

Rating	People	Environment	Economy	Public Administration	Social Setting
Definitions	- Death as a direct result of emergency. - Critical injuries with long-term or permanent incapacitation-Serious injuries Minor injuries	- Loss of species and/or landscapes - Loss of environmental value	Decline of economic activity and/ or loss of asset value	Impact of the emergency event on the delivery of core function of the governing bodies for the community	Effect on communities from the emergency event, as distinct from the individual impacts assessed in the people criteria
Insignificant	Less than 1 in 10,000,000 people for the population of interest	- No damage to eco systems at any level - Inconsequential damage to environment values of interest	- Inconsequential business sector disruption - Loss of asset value less than 0.004% of gross product produced by area of interest	- Governing bodies' delivery of core functions is unaffected or within normal parameters	- Community's social connectedness is disrupted, no permanent dispersal. - Minor damage to object of cultural significance.
Minor	Greater than 1 in 10,000,000 people for the population of interest	- Minor damage to eco systems or species at a local or regional level. - Minor damage to environment values of interest	- Significant industry or business sector impacted ie. Less than one year profit - Loss of asset value less than 0.004% of gross product produced by area of interest	- Governing bodies encounter limited reduction in delivery of core functions	- Community's social connectedness is damaged, no permanent dispersal. - Damage to object of cultural significance.
Moderate	Greater than 1 in 1,000,000 people for the population of interest	- Minor damage to ecosystems and species at the state level - Significant loss or impairment of an ecosystem or species at a local or regional level. - Significant damage to environmental values of interest.	- Significant industry or business sector impacted ie. More than one year profit - Loss of asset value less than 0.04% of gross product produced by area of interest	- Governing bodies encounter significant reduction in the delivery of core functions - Governing bodies are required to divert some available resources to deliver core functions or seek external assistance to deliver some of their core functions.	- Community's social connectedness is broken, some permanent dispersal. - Damage or localised widespread damage to object of cultural significance.
Major	Greater than 1 in 100,000 people for the population of interest	- Minor damage at national level, significant loss at state level and/or severe damage at local or regional level. Severe damage to environmental values	- Significant structural adjustment by industry - Loss of asset value greater than 0.4% of gross product produced by area of interest	- Governing bodies encounter severe reduction in the delivery of core functions - Governing bodies are required to divert a significant amount of available resources to deliver core functions or seek external assistance to deliver the majority of their core functions	- Community's social connectedness is significantly broken, significant permanent dispersal. - Widespread damage or localised permanent loss to object of cultural significance.
Catastrophic	Greater than 1 in 10,000 for the population of interest	- Permanent destruction at all levels, severe damage at national or state and/or significant loss at national level. - Permanent destruction of environmental values of interest.	- Failure of a significant industry or sector - Loss of asset value greater than 4% of gross product produced by area of interest	- Governing bodies are unable to deliver their core functions.	- The community of interest's social connectedness is irreparably broken. Community ceases to function and disperses. - Widespread and permanent loss to objects of cultural significant

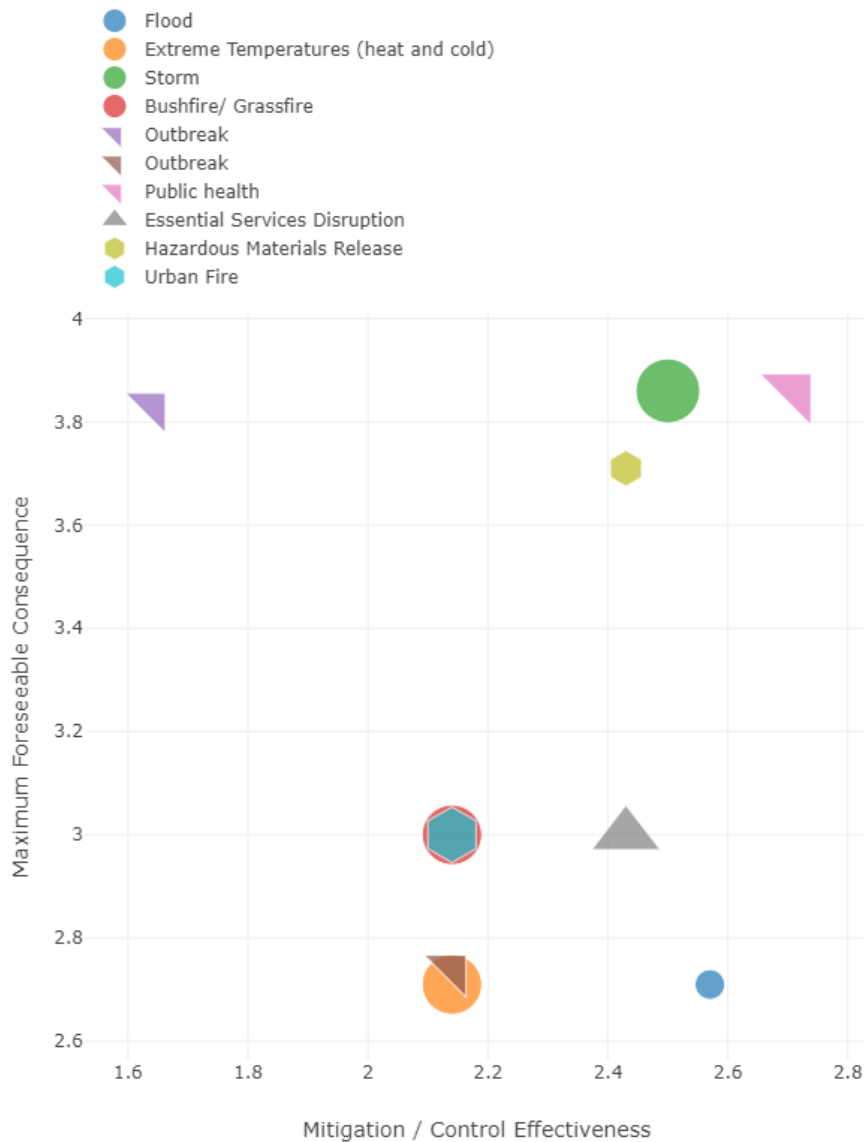
Table 2: Control strength and expediency

Level	Control Strength	Control expediency
High	Control is highly effective in reducing the level of risk	The control is frequently applied. A procedure to apply the control is well understood and resourced. The cost of applying the control is within current resources and budgets.
Medium	Control is effective in reducing the level of risk	The control is infrequently applied and is outside of the operators everyday experience. The use of the control has been foreseen and plans for its application have been prepared and tested. Some extraordinary cost may be required to apply the control.
Low	Control has some effect in reducing the level of risk	The control is applied rarely and operators may not have experience using it. The use of the control may have been foreseen and plans for its application may have been considered, but it is not part of the normal operational protocols and has not been tested. Extraordinary cost is required to apply the control, which may be difficult to obtain.
Very low	Control has almost no effect in reducing the level of risk	Application of the control is outside of the experience and planning of operators, with no effective procedures or plans for its operation. It has not been foreseen that the control will ever need to be used. The application of the control requires significant cost over and above existing resources, and the cost will most likely be objected to by a number of stakeholders.

Table 3: Likelihood level

Likelihood	Estimated average recurrence interval	Description
Almost certain	More than once a year	Expected to occur in most circumstances; with strong anecdotal evidence of recorded incidents.
Likely	1-10 years	Many recorded events Some events in comparable jurisdictions Great opportunity, reason or means to occur
Unlikely	11-100 years	Some recorded events Some events in comparable jurisdictions Some opportunity, reason or means to occur
Rare	101- 1,000 years	Few recorded events Some events in comparable jurisdictions Little opportunity, reason or means to occur
Very rare	>1,000 years	No recorded events No events in comparable jurisdictions Miniscule opportunity, reason or means to occur

South Gippsland CERA Outputs Heat Map



The heat map helps inform the level and type of action to be taken relative to each risk. The actions can be roughly grouped into two areas:

- Improve controls – Generally speaking, if a risk has a high residual consequence rating and a high control effectiveness rating (current controls are assessed as being ineffective), then **action should be taken to review and improve controls.**
- Monitor controls – Conversely, if a risk has a high residual consequence rating and a low control effectiveness (i.e. current controls are assessed as having good effect on the risk), then action should be taken to **monitor and validate the effectiveness of current controls.**

Based on the outcome of the CERA and evaluation, the MEMPC has a platform to select and prioritise the risk treatment activities.

Many risk treatments will be carried out in the context of state-wide programs or policies. With a number of high-level existing controls identified, potential opportunities to improve controls can be discussed and documented. These opportunities will serve as a starting point in developing and assessing risk treatment options.

The progression of treatment strategies is dependent upon the needs of the MEMPC. It is suggested that the core MEMPC and SME's make recommendations to the broader MEMPC in relation to treatment strategies.

The responsibility for treatment of risks is shared by all agencies on the MEMPC. Identified risk treatment actions should be allocated to accountable individuals or groups and assigned a target date for completion. In some cases, the group may determine that additional, in-depth analysis is required before an adequate assessment can be made and actions defined.

Recommendations

Based on the heat map Public Health (Pandemic), Storm and Hazardous Materials Release have the highest residual consequence rating and the highest control effectiveness rating (though still within the Moderately effective range).

The CERA process recommends that action should be taken to review and improve controls. Although current controls are moderately effective, some improvement opportunities may be identified to improve existing controls. Further review and analysis is recommended in relation to these 3 hazards.

It is therefore recommended that these 3 risks (Public Health (Pandemic), Storm and Hazardous Materials Release, become the initial focus of the work of the MEMPC for the 1st year of the South Gippsland Municipal Emergency Management Plan. It is recommended that the remaining hazard are monitored to confirm the effectiveness of current controls by the relevant control agency.

A number of plans, works and activities are currently in place to reduce the impact of, and prepare for emergency situations that may impact on the residents and visitors of South Gippsland.

The following 5 Subplans were developed and sat under the South Gippsland Shire Council MEMP. The documents were produced in relation to several of the identified hazards or sources of risk and are owned by the recognised control agency.

- South Gippsland Municipal Severe Weather Emergency Plan - VicSES
- South Gippsland Municipal Fire Management Plan - CFA
- South Gippsland Pandemic Plan - DFFH
- South Gippsland Extreme Temperature Plan – EMV (with support from DFFHS)
- South Gippsland Emergency Animal Welfare Plan – DJPR – Ag Vic

It is recommended that these plans are reviewed and consideration is given to them becoming sub plans to the new South Gippsland MEMP, being embedded in the MEMP (condensed and included as appendices) or recognised as complementary plans.

The MEMPC Terms of Reference identifies that the MEMPC may establish ongoing sub-committees or working groups to investigate or address specific issues or undertake key tasks such as reviewing or developing subplans.

They recognise the Community Emergency Risk Assessment (CERA) process may identify the need for additional planning to be undertaken by a specific working group or sub-committee where a hazard identified through this process retains a high/very high/extreme residual risk rating and the MEMPC believe further work is appropriate.

The EM Act 2013 & SEMP identifies the primary agency responsible for responding to specific forms of emergency. Additional planning work, sub-committee or working groups required at a municipal level will be led by the primary responsible control agency recognised in the SEMP or agencies identified with a regional coordination role.

Council will provide Secretariat support to sub-committee/working groups, if required, initially for 12 months. Secretariat duties include:

Scheduling meetings

- Providing committee/working group members with the meeting agenda
- Record agreed actions in the Actions Register
- Induction of new committee/working group members
- Develop/send correspondence for the committee/working group
- Maintain the contact list of committee/working group members

The work in the Treatment Plan will give direction on reporting to the MEMPC and an ongoing discussion in relation to capacity and capability of MEMPC members. It will also help use to develop a communications and engagement plan to build resilience in the community.

[Key CERA Risk Action Plan Outcomes 2021](#)

MEMPC meeting updates – 2021/22 Financial Year (see Risk Treatment Plan below for updates)

Improve Controls

- Pandemic - Updates from DFFH at every MEMPC meeting. Ongoing discussion at meetings around MEMPC agency capacity and capability in relation to Pandemic.
- Storm - Updates from SES at every MEMPC meeting. Ongoing discussion at meetings around MEMPC agency capacity and capability in relation to Storm.
- Hazardous Materials Release (marine environment) - Presentation from SME at MEMPC meeting 2021. Regular updates from Port Authority at MEMPC meetings.

Monitor controls

- Essential Services Disruption - Regular updates from AusNet services at MEMPC meetings (2x per year)
- Outbreak - Emergency animal disease - Regular updates from Ag Vic at MEMPC meetings (2x per year)
- Plan review/working group updates as required.

Review of sub -plans associated with previous MEMP – updates to MEMPC as required & proposal to include in new MEMP – 2021/22 Financial Year

- South Gippsland Municipal Severe Weather Emergency Plan - SES (2021)
- South Gippsland Municipal Fire Management Plan - CFA (2021)
- South Gippsland Pandemic Plan - DFFH (2022)
- South Gippsland Extreme Temperature Plan – EMV (with support from DFFH) (2022)
- South Gippsland Emergency Animal Welfare Plan – Department of Jobs, Precincts and Regions (2022)

Working groups (formation of/ongoing work for 2021/22 financial year)

To achieve these outcomes, it is recommended the following working groups are formed for 12 months during the 2021/22 Financial year, led by the primary responsible control agency, to review sub plans associated with these risks, and consider additional updates to the CERA assessments.

- Public Health Working Group – Pandemic & Extreme Temperature Plans, Outbreak - Food & Water Contamination Water Supply
- Fire Management Working Group –Fire Management Plan (Bushfire/Grassfire & Urban Fire)
- Severe Weather Working Group - Severe Weather Plan (Flood & Storm)

Exercises/Presentations – 2021/22 Financial Year

- Presentation - Hazardous Materials Release (marine environment) – DoT or Gippsland Ports 2021
- Exercise - Hazardous Materials Release (marine environment) -MEMPC led /supported 2022
- Presentation/exercise – Essential Services Disruption – Electricity - AusNet services at MEMPC meeting 2022
- Presentation/exercise – Outbreak Emergency Animal Disease - Ag Vic at MEMPC meeting 2022.

Communications and Engagement

Develop a MEMPC communications and engagement plan to coordinate member activities that build resilience in the community.

Monitoring and review

The CERA process will be discussed at each meeting of the MEMPC. The MEMPC, will routinely review the status of risk treatments through reporting at MEMPC meetings. The Treatment Plan will form much of the work of the MEMPC over the next 3 year period. The Core legislated MEMPC members will review the CERA process annually with input from identified SMEs.

If a new risk has been identified through an MEMPC meeting or a risk status has changed, the MEMPC will detail these changes and make amendments to the CERA Action Plan and MEMPC as appropriate.

The MEMPC will seek opportunities to collaborate with other municipalities and/or state agencies in enhancing preparedness, response and recovery capabilities across key risk scenarios, etc

Financial considerations

Agencies are responsible for the costs of mitigation activities they carry out to fulfil their own responsibilities. Funding may be available through Commonwealth and State Government for managing local and regional risks and building resilience. The relevant agency/ ies should consider their respective budget processes and use the outcomes of the CERA process to further inform decision making. Mitigation activities should complement existing programs or contribute to new initiatives and may include, but are not limited to:

- Planning and regulation, such as formulation and implementation of policy and procedures
- Infrastructure projects, such as building and/ or maintenance of structural works and infrastructure
- Education and awareness, including the delivery of related programs such as training, engagement and other activities to build community preparedness and resilience.

Terminology

The following terms have been used by the MEMPC when considering the risk assessment process:

Hazards - Hazardous events (hazards) can be either naturally occurring, such as storms or coastal erosion, or they can be human-made, such as water pollution or terrorist attack. In addition, events can be sudden as in the case of a storm, or they can occur over time as in the case for most environmental hazards such as coastal erosion.

Exposure - Exposure refers to the inventory of elements in an area in which hazard events may occur. Hence, if population and economic resources were not located in (exposed to) potentially dangerous settings, no problem of disaster risk would exist. While the literature and common usage often mistakenly combine exposure and vulnerability, they are distinct. Exposure is a necessary, but not sufficient, determinant of risk. It is possible to be exposed but not vulnerable (for example by living in a floodplain but having sufficient means to modify building structure and behaviour to mitigate potential loss). However, to be vulnerable to an extreme event, it is necessary to also be exposed.

Vulnerability - Vulnerability refers to the propensity of exposed elements such as human beings, their livelihoods, and assets to suffer adverse effects when impacted by hazard events. Vulnerability is related to predisposition, susceptibilities, fragilities, weaknesses, deficiencies, or lack of capacities that favour adverse effects on the exposed elements. Vulnerability can be seen as situation-specific, interacting with a hazard event to generate risk. Vulnerability to financial crisis, for example, does not infer vulnerability to climate change or natural hazards. It is important to note that exposure and vulnerability change over time. It will therefore be critical to periodically revisit the assumptions that we have made about them.

Resilience - The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.

Resilience means the ability to “spring back from” a shock. The resilience of a community in respect to potential hazard events is determined by the degree to which the community has the necessary resources and is capable of organising itself both prior to and during times of need.

Risk Treatment Plan May 2022			
Hazard	Description	Action	How
Outbreak	Food & Water Contamination Water Supply	monitor and validate -Identify ways to improve confidence rating of MEMPC in relation to this risk and understand local consequences and actions of MEMPC in PPRR	Feb – 2023 Assessment of CERA sheets and associated Municipal Plans from the old SG MEMP. Initial review by February 2023 MEMPC. Initial Working Group - Council EM Team & EHO. Department of Health. Assessment of CERA sheets during initial review in February 2023. Draft updated CERA Sheet being developed for presentation at May meeting 2023.
Essential Services Disruption	Electricity Supply impacts	monitor and validate - Regular updates from Ausnet Services on Mitigation / Control and work to reduce likelihood. Consideration for local consequences and actions of MEMPC in PPRR.	Update 2x per year (May and November) including reminder to all agencies in MEMPC to review BCP and maintain back up equipment for power supply and communications
Urban Fire	Significant residential or industrial fire	monitor and validate - Regular updates from CFA and other owners on Mitigation / Control and work to reduce likelihood. Consideration for local consequences and actions of MEMPC in PPRR.	Fire Management Arrangements document – appendix to MEMP endorsed May 2022. Feb – 2023 - CFA reviewing CERA sheet for presentation at future meeting in 2023.
Bushfire/ Grassfire	Bushfire/ Grassfire	monitor and validate - Regular updates from CFA and other owners on Mitigation / Control and work to reduce likelihood. Consideration for local consequences and actions of MEMPC in PPRR.	Feb 2023 - Fire Management Arrangements document – MEMP endorsed May 2022 CFA brigades reviewing VFRR information for Extreme and Very High Human Settlement assets Working group meeting booked for March 16 2023

Hazardous Materials Release	Oil and hazardous/other noxious substances in to marine environment	review and improve - Further review and analysis. Identify ways to improve confidence rating of MEMPC in relation to this risk. Consider if MEMPC can influence/reduce max foreseeable consequence and understand local consequences and actions of MEMPC in PPRR	Feb 2023 - Gippsland Ports Exercise to be completed in South Gippsland in 2023 with certain MEMPC members invited – outcomes shared
Outbreak	Emergency animal disease	monitor and validate - Identify ways to improve confidence rating of MEMPC in relation to this risk and understand local consequences and actions of MEMPC in PPRR	Regular updates from Ag Vic at MEMPC meetings (2x per year). Nov 2022- Completed review of Animal Welfare Plan - Council, Ag Vic & Parks Victoria. Development of the South Gippsland Emergency Animal Welfare Arrangements 2022.
Extreme Temperatures (heat and cold)	Heatwave or cold snap	monitor and validate - DH and SGSC to lead a review of South Gippsland Extreme Temperature Plan during 2022/23.	Feb 2023 - Initial Working Group - Council EM Team & EHO. Assessment of CERA sheets and associated Municipal Plans from the old SG MEMP discussed during initial review in February 2023. Draft updated CERA Sheet being developed for presentation at May meeting 2023.
Storm	Windstorms, storm tides, severe thunderstorms, hailstorms, tornadoes, and heavy rain.	review and improve - Further review and analysis. Identify ways to reduce the control effectiveness rating in relation to this risk. Consider if MEMPC can influence/reduce max foreseeable consequence. Improve understanding of local consequences and actions of MEMPC in PPRR	Feb 2023 - Draft updates to CERA process completed to include only active mitigations. Working group meeting booked for April 20 2023
Public Health	Pandemic or similar	review and improve - Further review and analysis. Identify ways to reduce the control effectiveness rating in relation to this risk. Consider if MEMPC can influence/reduce max foreseeable consequence and reduce likelihood. Improve understanding of local consequences and actions of MEMPC in PPRR.	Feb 2023 - Initial Working Group - Council EM Team & EHO. Department of Health. Assessment of CERA sheets and associated Municipal Plans from the old SG MEMP discussed during initial review in February 2023. Draft updated CERA Sheet being developed for presentation at May meeting 2023.

Flood	Riverine or stormwater flooding	monitor and validate - Regular updates from SES and other owners on Mitigation / Control and work to reduce likelihood. Consideration for local consequences and actions of MEMPC in PPRR.	Feb -2023 Draft updates to CERA process completed to include only active mitigations. CERA Sheet being developed for presentation at May meeting 2023. Further discussion re Tarwin Valley Flood Guide Working group meeting booked for April 20 2023
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History of emergencies South Gippsland

Fire

- Major fires have occurred at Wilsons Promontory in 1939, 1951, 2005, 2009 and 2019. The Wilsons Promontory fire was contained within the park but affected businesses throughout the Shire, due to the closure of the park.
- The Delburn Complex Fire in 2009 was deliberately lit and affected the townships of Darlimurla and Mirboo North. There were 128 properties directly impacted by this fire.
- In 2013, a fire started in Hallston from a DELWP planned burn and burnt 562 hectares. Losses included public land (267 Ha), pine and blue gum plantations (151 Ha), private forest (95 Ha) and private pasture (49 Ha).
- In March 2018, a fire started near the McDonalds Track at Seaview in the Strzelecki Ranges south west of Yarragon. Although not in the shire, the ICC in Leongatha was activated to provide assistance. Approximately 254 hectares was burnt. No evacuations had taken place, however some community members self-relocated in accordance with their own bushfire survival plan. A Community Information Session was held for the Mirboo North Community with representatives from the CFA ICC and VCC giving updates on the fire situation.

Severe Weather (Wind, Storm, Floods, Storm Surges, Tsunami)

Severe Weather including wind storms, thunderstorms and floods occur on a yearly basis in South Gippsland. Tornadoes and Microbursts have occurred throughout South Gippsland. In April 2008 the MECC was opened due to a severe windstorm that caused damage across the entire Shire. A microburst caused significant damage to trees and houses in the Dumbalk North area in July 2009.

There is a history of minor flooding in Toora, Welshpool, Tarwin and Meeniyan. In March 2011 there was flash flooding of Fish Creek and Wilsons Promontory where the damage to the bridge caused the largest air lift evacuation of stranded people since Cyclone Tracey. The flood caused significant damage to park assets, access roads / tracks and infrastructure.

Storm surges have caused minor damage to the coast line. In the past, beach access and dunes have required repair work. Other significant severe weather incidents have occurred across the Shire in the past few years.

The Gippsland coastline is prone to exposure to marine based tsunami alerts though the risk of land inundation is low. The main risk of a tsunami for the Victorian coastline emanates from seismic activity off the west coast of New Zealand. VicSES have developed a Gippsland Regional Tsunami Emergency Plan 2020 and can be sourced on the VicSES website <https://www.ses.vic.gov.au/em-sector/vicses-emergency-plans>

Land Search and Rescue

Many searches occur along the coastal fringe for lost persons particularly in Wilsons Promontory. Several lost or missing persons have never been located despite extensive searches.

Marine Incidents

Numerous incidents involving small pleasure craft, fishing boats (both recreational and professional) have occurred, and ocean going merchant ships have frequently been involved in marine search and rescue

operations. This has also included aircraft lost at sea. There have been some incidents of biological and chemical hazards on beaches due to containers falling or dumped from passing ships.

Whale stranding

Whale strandings are not uncommon along the Victorian coast. To date, small strandings have been managed by Parks Victoria rangers.

Oil Spillage

Minor marine oil spills have occurred due to the proximity of merchant shipping lanes and the gas and oil offshore platforms located east of Longford.

Drought

During 1997 and 1998 the region suffered extensively from dry weather drought which caused extensive financial hardship to the dairy industry. In 2007 the Shire was officially declared a drought affected area for the first time.

Water Contamination

In October 2004, a water contamination incident occurred in Leongatha as a result of rural effluent overflow.

Exotic Animal Disease

There have been recorded outbreaks of Anthrax and Johnes disease within the South Gippsland Shire with the last outbreak occurring north of Leongatha in 1995. It is important to note that anthrax spores remain viable for a number of years in the soil.

Earth Tremors

There have been a number of earth tremors as demonstrated in the table below. The most severe was near Korumburra reaching a magnitude of 4.8 in 2009. South Gippsland continues to experience earth tremors and has experienced the following since 2012 resulting in minor inconvenience and damage.

Vic SES have developed a Gippsland Regional Earthquake Plan in 2020. This can be sourced on the VicSES website <https://www.ses.vic.gov.au/em-sector/vicses-emergency-plans>. More information can be found at Geoscience Australia Earthquakes <http://www.ga.gov.au/earthquakes/>

Extreme Temperature

The January 2009 heatwave in Victoria not only set many new temperature records across the state, but in addition, 374 deaths were recorded. This substantially exceeded the death toll from the Black Saturday fires on 7 February of that year.

In August 2005, a cold front delivered snow to many parts of southern Victoria. Snow was observed in coastal towns, and most places across the shire above 200 metres elevation recorded at least 5 centimetres of snow, with Melbourne's temperature dropping to a low of 4.6 degrees at 7.14am and reached only 10.4. Up to 120 students were stranded at the Mirboo North primary school, one of the worst affected areas, and were prepared to spend the night at school. The South Gippsland Highway and the Strzelecki Highway, as well as nearby secondary roads, were closed because conditions were too dangerous.

The July 2016 winter cold snap across Victoria highlighted the need to include extreme cold alerts into the [South Gippsland Extreme Temperature Sub-plan](#). The aim of this Subplan is to prepare the South Gippsland Shire for effects of a declared heatwave / HeatHealth Alert, Extreme Cold Alert or other extreme temperature advise – on our community, infrastructure, operational capacity, plans and policies

Although South Gippsland is fortunate to have no recorded extreme temperature related fatalities, planning for heatwaves and other extreme weather events is essential to ensure the health and well-being of our community.

Dam Failure

The consequences of a dam failure can range from very low to extreme depending on the size of the dam and the extent of inundation it causes. Large dams that can cause high or extreme consequences are designed to stringent safety standards and are very unlikely to fail. However, in the unlikely event a large dam should fail, significant farming, commercial and residential areas would be inundated by flood water, endangering life and causing extensive damage to infrastructure and the environment and disrupting essential services. The following is a list of major dams and /or major water storages for industry located within the South Gippsland Region and near a known fault line. Risk management plans for dams are available upon request to the Catchment Management Authority.

Foster Dam (Foster) The dam is the primary source of water for the Foster township and is located on the Gelliondale monocline.

Battery Dam (Fish Creek) The dam is the primary source of water for the Fish Creek township and is located on the Gelliondale monocline

On 9 June 2011, a dam wall broke on a farming property on the corner of O’Grady’s Ridge Road and Hoddle Road in Foster. It release water from two dams, one with a capacity of around 30 to 40ML, the other measuring around 100ML. It was fortunate that there was not enough water to cause any significant damage or injuries, though it necessitated a massive clean-up in the vicinity of Gardiners Road and Stockyard Creek. The water dispersed very quickly, leaving a a thick layer of mud and other debris. South Gippsland Shire Council removed more than 70 truckloads of debris from the area around Stockyard Creek.

Additional References

- [CERA Online Login and Registration Guide](#) (PDF 175 KB)
- [CERA Online User Guide](#) (1.42MB)
- [CERA Consolidated Data - June 2020](#) (337 KB)
- [CERA Participant Workbook.pdf](#) (7.2 MB)
- [CERA Fact Sheet.pdf](#) (250 KB)
- [Consequence Rating Criteria Tables](#) (PDF 400 KB)

South Gippsland Shire

Hazard	Outbreak
Review date	2024-04-03
Hazard description	<p>Food & Water Contamination Water Supply - Microbiological and chemical contamination risks identified. Contamination of the reticulated water network may occur at the time of extraction, storage or treatment. The water authorities are required to have processes in place to manage identified hazards. Unexpected contamination e.g. contamination of source water by hazardous materials or contamination during distribution is likely to have the greatest impact on the community and pose the greatest risk to human health. Private water supplies such of those collected from rainwater sources and private bores are more readily susceptible to contamination and property owners are likely to have limited capacity to manage any contamination and treatment. These types of contamination events will impact far fewer people and pose less risk to the broader community. Food Supply Chain – Microbiological, chemical and physical contamination risks identified. Contamination of the food supply chain may occur at the primary production, manufacture, storage or transport stages. Larger food manufacturers are required to have processes in place to manage contamination in consultation with the Department of Health and Human Services (DHHS) and other state authorities as required. Smaller scale food manufacturers and distributors such as cafes and restaurants have templated processes in place to manage contamination, however the number of people affected by this type of contamination is expected to remain low.</p>
Rationale	<p>Problems with the reticulated water supply are uncommon but are often the result of a treatment failure. Most recently (2021), the Korumburra sewage treatment and storage plant was overwhelmed by demand and discharged waste of varying stages of treatment into Foster Creek. This resulted in a health warning being issued by the Environment Protection Authority (EPA) for properties downstream of the treatment plant. Contact with this water was considered unsafe, and any property using the water from the creek as their potable water supply were required to make other arrangements. Food supply chain contamination is rare, but is likely to be the result of microbiological or physical contamination. Located within SGS are 3 significant milk product manufacturers whose impact on the local, national and internal community could be considered catastrophic should contamination of their products occur.</p>

Dashboard Summary

Hazard Assessment

Confidence in Risk Rating	Medium
Residual Risk Rating	Medium
Maximum Foreseeable Consequence	2.74
Mitigation / Control Effectiveness	2.14
Residual Consequence	2.6
Likelihood / Frequency	3.14
Collaboration	
Other Municipalities	Maintain
State Agency Collaboration	Maintain
Control Agency	Department of Health
Key support agencies and/or organisations	Ambulance Victoria Municipal Councils Environment Protection Authority Water Corporations

Causes

Description of Causes and/or Contributing factors	Owner(s)
Lack of adherence with legislative framework, e.g. relevant Water and Food legislation	Municipal Councils Water Corporations

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Social - People	All members of the community and visitors.	Sickness, death, isolation, financial impacts.	Municipal Councils Department of Health Water Corporations
Built - Community/Essential Infrastructure	Essential services providers, private industry, Health & health system, isolation, economic impacts.	Requirement to provide food and water from known safe locations/sources	Water Corporations Municipal Councils
Environment - Natural Environment	Contamination of natural water course and fresh water supplies	Additional sources of water required	Municipal Councils Water Corporations
Public Administration - governing body's ability to govern	Provisions of critical service, effective governance, services/works cease or abandoned.	Struggle to provide critical service, Loss of public confidence in governance, public alarm and unrest.	Municipal Councils
Social Setting - community's normal functioning, its resilience, its social fabric and cultural values and heritage	Community well being & services within community.	Disruption to community wellbeing and possible adverse emotional and psychological impacts, reduced services within community.	Municipal Councils Department of Health Department of Jobs, Precincts and Regions
Economic - of local area, economic losses due to damage to, or loss of key infrastructure/livelihoods, disruption to industry, need for \$ for recovery.	Industry / business, agriculture – crop and livestock	Damage to, or loss of key infrastructure/livelihoods - industry / business, agriculture – crop and livestock	Department of Jobs, Precincts and Regions Municipal Councils

Mitigations

Mitigation	Comment	Date	Status	Owner(s)
Community alerts & warnings	Sharing of information between agencies and with the community include tourists (translations if required)		Existing	Water Corporations Municipal Councils Department of Health Environment Protection Authority
Community education	In relation to safe food handling and how to preserve safe drinking water		Existing	Water Corporations Municipal Councils
Business continuity plans	Ability to keep providing essential services (water) in the event of contamination		Existing	Water Corporations
Audits and inspections	Audits of registered food businesses by Council		Existing	Municipal Councils

South Gippsland Shire

Hazard	Essential Services Disruption
Review date	2024-03-09
Hazard description	Electricity transmission and distribution businesses are privately owned in Victoria and responsible for the reliability of their networks and are subject to financial incentives to maintain and improve supply reliability under the national framework.
Rationale	Disruption to electrical supply is not a common occurrence and could be the result of a system failure, or as a result of earthquakes, flood, storm, accident etc. 3 lines feed the local area and the likelihood of all of them being impacted is low. The Hazelwood Mine Fire in 2014 impacted on 2 lines. Recorded events include a windstorm in Melbourne in 2008 which resulted in local damage to networks, Severe weather events in South Gippsland Shire also resulted in disruption to electrical supply to the Foster area with supply restored after 2 days to some rural properties. Main centers are more likely to stay on supply with more remote area more likely to take longer to reinstate supply in storm events. In June 2021 a significant storm event impacted on South Gippsland (and Vic) causing extensive power outages. Significant areas of the community impacted by electricity outages –Fish Creek 2 days, Nyora 3 days, Poowong 3.5 days and other locations in remote areas up to 5 days. Power outages caused significant telecommunications issues to businesses, service providers and the community as mobile phone towers lost power. 2 other significant storm events in 2021 impacted power supplies and these storms appear to be more frequent, violent and damaging than the past, resulting in an increase in the likelihood of an interruption occurring.

Dashboard Summary

Hazard Assessment

Confidence in Risk Rating	High
Residual Risk Rating	Medium
Maximum Foreseeable Consequence	3
Mitigation / Control Effectiveness	2.43
Residual Consequence	2
Likelihood / Frequency	4

Collaboration

Other Municipalities	Maintain
State Agency Collaboration	Maintain
Control Agency	Department of Environment, Land, Water and Planning

Key support agencies and/or organisations	Australian Energy Market Operator Energy Safe Victoria Department of Environment, Land, Water and Planning Municipal Councils Emergency Broadcasters Telstra Corporation Limited NBN Co
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Description of Causes and/or Contributing factors	Owner(s)
Description of Causes and/or Contributing factors	Owner(s)
System or equipment failure - as a result of high temperatures, increased demand, load shedding or accident.	Department of Environment, Land, Water and Planning Water Corporations
Extreme natural weather event - Storm, Flood and Fire that damages critical infrastructure.	Department of Environment, Land, Water and Planning Water Corporations
Lack of adherence with legislative framework, e.g. Electricity Industry Act, Electricity Safety Act, national electricity laws and rules.	Energy Safe Victoria Department of Environment, Land, Water and Planning Municipal Councils

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Social - Impacts on people	Life and property, health system, impacts on telecommunications and therefore community communications, vulnerable and power dependent people, slowing of community recovery process.	Loss of life/Property. Impacts on health system. Loss of communications.	Energy Safe Victoria Water Corporations Department of Health and Human Services
Built - Community/Essential Infrastructure	Health & health system, isolation, economic impacts	Loss of or impacts on community or essential Infrastructure	Energy Safe Victoria Department of Environment, Land, Water and Planning Water Corporations
Public Administration - governing body's ability to govern	Provisions of critical service, effective governance, services/works cease or abandoned.	Struggle to provide critical service, Loss of public confidence in governance, public alarm and unrest.	
Social Setting - communities normal functioning, its resilience, its social fabric and cultural values and heritage	Community wellbeing, social networks, services within community, objects of cultural significance.	Disruption to community wellbeing and social networks, adverse emotional and psychological impacts, reduced services within community, damages to objects of cultural significance, slowing of community recovery process..	Municipal Councils Department of Environment, Land, Water and Planning Department of Jobs, Precincts and Regions
Economic - of local area, economic losses due to damage to, or loss of key infrastructure/livelihoods, disruption to industry, need for \$ for recovery.	public buildings, utilities – power, water, gas, telecommunications, private property, industry / business, agriculture – crop and livestock	Damage to, or loss of key infrastructure/livelihoods – road, public buildings, utilities – power, water, gas, telecommunications, private property, industry / business, agriculture – crop and livestock	Department of Environment, Land, Water and Planning Energy Safe Victoria

Mitigations

Mitigation	Comment	Start date	Due date	Status	Owner(s)
Business continuity plans	There are limited current controls to this type of event subject to contingency plans of the essential service providers.			Existing	
Community alerts & warnings	Sharing of information between agencies and with the community include tourists (translations if required)			New not started	Department of Environment, Land, Water and Planning Municipal Councils
Legislation	Legislation controls essential service providers in relation to their activities.			Existing	Energy Safe Victoria
Community education	Including information in all hazards community education and engagement about power outages and links to communications issues.			New started	Municipal Councils Victoria State Emergency Service Country Fire Authority Australian Red Cross
Maintain backup equipment	All agencies in MEMPC to review BCP and maintain back up equipment for power supply and communications.			Existing	Department of Health and Human Services Municipal Councils Telstra Corporation Limited NBN Co Water Corporations

South Gippsland Shire

Hazard Urban Fire

Review date 2024-03-09

Hazard description That a significant residential or industrial fire occurs causing damage to multiple properties, buildings with casualties/injuries. This event would cause significant disruption to a community and prevent the normal operation of that community.

Rationale CFA responds to numerous fires in residential, commercial and industrial buildings all year round. House fires occur in all parts of the municipality with the majority of commercial and industrial fires occurring in the main towns and farming properties which may include hay shed fires. In relation to structural fires, house fires are a common occurrence across all areas of the municipality. There are a number of aged care facilities across the municipality.

Dashboard Summary

Hazard Assessment

Confidence in Risk Rating High

Residual Risk Rating High

Maximum Foreseeable Consequence 3

Mitigation / Control Effectiveness 2.14

Residual Consequence 2.5

Likelihood / Frequency 3.71

Collaboration

Other Municipalities Maintain

State Agency Collaboration Maintain

Control Agency Country Fire Authority

Key support agencies and/or organisations Municipal Councils
WorkSafe Victoria (Victorian WorkCover Authority)
Victoria Police

Causes

Description of Causes and/or Contributing factors	Owner(s)
No adherence to building regulations, standards and codes	Municipal Councils
Lack of community education, awareness and engagement to prevent structure fires	Country Fire Authority
Electrical safety standards not being followed	Municipal Councils
Lack of trained staff and equipment to respond to incident	Country Fire Authority

Causes

Description of Causes and/or Contributing factors	Owner(s)
Lack of planning to ensure ongoing critical service provision if impacted by structure fire.	Municipal Councils Department of Education and Training Department of Health and Human Services Department of Health

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Social - Impacts on people	Life and property, health system.	Loss of life/Property, material aid, food, financial assistance, personal support services, need for accommodation. Impacts on health system.	Country Fire Authority Insurance Council of Australia Ltd Municipal Councils Department of Health and Human Services
Built - Community/Essential Infrastructure	Impacts on health & health system, isolation, dislocation, economic impacts.	Loss of or impacts on community or essential Infrastructure	Country Fire Authority Municipal Councils
Economic - of local area, economic losses due to damage to, or loss of key infrastructure/livelihoods, disruption to industry, need for \$ for recovery.	Public buildings, utilities – power, water, gas, telecommunications, private property, industry / business, agriculture – crop and livestock	Damage to, or loss of key infrastructure/livelihoods – public buildings, utilities – power, water, gas, telecommunications, private property, industry / business, agriculture – crop and livestock	Country Fire Authority Municipal Councils
Environment - continued normal functioning of significant ecosystems	Natural vegetation, tourism	Damage to the natural environment which may impact on tourism and the economy as a well as the natural ecosystem	Country Fire Authority
Public Administration - governing body's ability to govern	Provisions of critical services - hospitals, Council buildings, effective governance may be impacted	Struggle to provide critical service, Loss of public confidence in governance.	Country Fire Authority Municipal Councils
Social Setting - community's normal functioning, its resilience, its social fabric and cultural values and heritage	Community wellbeing, social networks, services within community, objects of cultural significance	Disruption to community wellbeing and social networks, adverse emotional and psychological impacts, reduced services within community, damages to objects of cultural significance.	Country Fire Authority Municipal Councils

Mitigations				
Mitigation	Comment	Date	Status	Owner(s)
Building regulations	Relevant building regulations are being enforced.		Existing	Country Fire Authority Municipal Councils Victorian Building Authority
Community education	Educating the community on likely causes of structure fires cooking, heating, electrical distribution and lighting equipment, intentional fire setting, and smoking materials.		Existing	Country Fire Authority
Business continuity plans	Support ongoing provision of services in the event of a structure fire impacting on important infrastructure.		Existing	Municipal Councils Department of Education and Training Department of Health Department of Families, Fairness and Housing
Emergency Services Response Framework	Resourcing and training of firefighting operational resources		Existing	Country Fire Authority
Audits and inspections	Essential Services inspections of high risk facilities. OHS responsibilities being followed in relation to structure fire.		Existing	Municipal Councils WorkSafe Victoria (Victorian WorkCover Authority)

South Gippsland Shire

Hazard Bushfire/ Grassfire

Review date 2024-02-25

Hazard description South eastern Australia, including Victoria is among the most bushfire-prone areas in the world. This high risk of bushfire is due to combination of factors including: • large areas of highly flammable eucalypt forest and grassland • climatic pattern of mild, moist winters followed by hot dry summers • protracted droughts • increasing population density in bushfire-prone areas, such as in the rural-urban fringe. The potential consequences of a credible worst- case bushfire in Victoria will lead to loss of life and injury, damage infrastructure such as electricity transmission lines, water supply assets including mature forests in water catchments, transport links such as roads, bridges and railways and cause permanent environmental damage.

Rationale South Gippsland Shire has a significant amount of public land areas of the Municipality. This along with significant tracts of private bush generates a risk to a number of communities. South Gippsland Shire has been heavily impacted by major bushfires on a regular basis. This included the devastating 2009 bushfires. Based on an historical analysis major bushfires have occurred over the past 10 years at least every 3-4 yrs. CFA also respond also respond to numerous smaller fires on an annual basis. There are a number of locations in the Shire where major events are held during the summer and the population of many coastal towns increases significantly during December and January.

Dashboard Summary

Hazard Assessment

Confidence in Risk Rating High

Residual Risk Rating High

Maximum Foreseeable Consequence 3

Mitigation / Control Effectiveness 2.14

Residual Consequence 2.5

Likelihood / Frequency 4

Collaboration

Other Municipalities Maintain

State Agency Collaboration Maintain

Control Agency Country Fire Authority

Key support agencies and/or organisations Municipal Councils

Causes

Description of Causes and/or Contributing factors

Owner(s)

Inappropriate land use planning

Municipal Councils
Department of Environment, Land, Water and Planning
Country Fire Authority

Causes

Description of Causes and/or Contributing factors	Owner(s)
No adherence to building regulations, standards and codes	Municipal Councils
Lack of landscape fuel management incl. meeting legislative requirements	Department of Environment, Land, Water and Planning Parks Victoria Municipal Councils
No fire ignition controls including total fire ban days, arson programs	Country Fire Authority Victoria Police
Lack of community education, awareness and engagement to prevent and respond to bushfire	Country Fire Authority Municipal Councils
No planning for seasonal arrangements to ensure capability	Country Fire Authority Department of Environment, Land, Water and Planning Parks Victoria
No restricted access to public land	Department of Environment, Land, Water and Planning Parks Victoria Municipal Councils

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Social - Impacts on people	Life and property, health system.	Loss of life/Property, material aid, food, financial assistance, personal support services, need for accommodation. Impacts on health system.	Country Fire Authority Municipal Councils Department of Environment, Land, Water and Planning Parks Victoria
Built - Community/Essential Infrastructure	Health & health system, isolation, economic impacts.	Loss of or impacts on community or essential Infrastructure	Country Fire Authority Department of Environment, Land, Water and Planning Parks Victoria Municipal Councils

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Economic - of local area, economic losses due to damage to, or loss of key infrastructure/livelihoods, disruption to industry, need for \$ for recovery.	Road, public buildings, utilities – power, water, gas, telecommunications, private property, industry / business, agriculture – crop and livestock	Damage to, or loss of key infrastructure/livelihoods – road, public buildings, utilities – power, water, gas, telecommunications, private property, industry / business, agriculture – crop and livestock	Country Fire Authority Department of Environment, Land, Water and Planning Parks Victoria Municipal Councils Water Corporations
Environment - continued normal functioning of significant ecosystems	Natural vegetation, tourism	Damage to the natural environment which may impact on tourism and the economy as well as the natural ecosystem	Country Fire Authority Department of Environment, Land, Water and Planning Parks Victoria Municipal Councils
Public Administration - governing body's ability to govern	Provisions of critical service, effective governance, services/works cease or abandoned.	Struggle to provide critical service, Loss of public confidence in governance, public alarm and unrest.	Country Fire Authority Department of Environment, Land, Water and Planning Parks Victoria Municipal Councils
Social Setting - communities normal functioning, its resilience, its social fabric and cultural values and heritage	Community wellbeing, social networks, services within community, objects of cultural significance.	Disruption to community wellbeing and social networks, adverse emotional and psychological impacts, reduced services within community, damages to objects of cultural significance.	Country Fire Authority Department of Environment, Land, Water and Planning Parks Victoria Municipal Councils Department of Health and Human Services

Mitigations

Mitigation	Comment	Date	Status	Owner(s)
Community alerts & warnings	Includes planning for and sharing of information between agencies and with the community		Existing	Country Fire Authority Emergency Management Victoria
Community education	Includes with tourists (translations if required) and tourism providers.		Existing	Country Fire Authority
Planning permit overlays	Includes appreciation BMO and future strategic planning work		Existing	Municipal Councils
Community Information Guide/Signboard/Map	Recognising new CIG online opportunity		New not started	Country Fire Authority Department of Environment, Land, Water and Planning Parks Victoria Municipal Councils
Collaboration	Recognition of integrated fire management planning between agencies undertaken across prevention, preparedness, response and recovery		Existing	Country Fire Authority Department of Environment, Land, Water and Planning Parks Victoria Municipal Councils Victoria Police

South Gippsland Shire

Hazard	Hazardous Materials Release
Review date	2015-03-04
Hazard description	South Gippsland has an extensive coastline. Oil and hazardous/other noxious substances may enter the marine environment from ship-based and/or land-based sources.
Rationale	Significant marine exposures in Corner Inlet & Port Albert. The Port encompasses the waters adjacent to Wilson's Promontory. Anderson Inlet lies at the head of Venus Bay, extending from its entrance to Bass Strait approximately 11 kms to Tarwin River at its head.

Dashboard Summary

Hazard Assessment

Confidence in Risk Rating	Medium
Residual Risk Rating	Low
Maximum Foreseeable Consequence	3.71
Mitigation / Control Effectiveness	2.43
Residual Consequence	2.06
Likelihood / Frequency	2.43

Collaboration

Other Municipalities	Maintain
State Agency Collaboration	Maintain
Control Agency	Australian Maritime Safety Authority
Key support agencies and/or organisations	WorkSafe Victoria (Victorian WorkCover Authority) Department of Transport (including Head, Transport for Victoria) Environment Protection Authority Parks Victoria Department of Environment, Land, Water and Planning Municipal Councils

Causes

Description of Causes and/or Contributing factors	Owner(s)
The loss containment of materials that are in storage or being transported could also lead to a large explosion or release of toxic gas in populated areas.	WorkSafe Victoria (Victorian WorkCover Authority) Department of Transport (including Head, Transport for Victoria) Environment Protection Authority
Lack of legislation and enforcement relating to Harbour master directions obligations of Port manager, Port operator, vessel operators, offshore facility operators etc	Department of Transport (including Head, Transport for Victoria)

Causes

Description of Causes and/or Contributing factors**Owner(s)**

No audits and inspection of commercial vessels, port infrastructure, offshore facilities (note vessel condition monitoring done by Commonwealth)

Australian Maritime Safety Authority

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Social - Impacts on people	Life and property, health system.	Loss of life/Property, Impacts on health system.	Australian Maritime Safety Authority Department of Transport (including Head, Transport for Victoria)
Built - Community/Essential Infrastructure	Health & health system, economic impacts.	Loss of or impacts on community and economy	Australian Maritime Safety Authority Department of Transport (including Head, Transport for Victoria)
Economic - of local area, economic losses due to damage to, or loss of key infrastructure/livelihoods, disruption to industry, need for \$ for recovery.	Key infrastructure, livelihoods, industry / business, agriculture, tourism.	Damage to, or loss of key infrastructure/livelihoods, industry / business, agriculture, tourism.	Australian Maritime Safety Authority Department of Transport (including Head, Transport for Victoria)
Environment - continued normal functioning of significant ecosystems	Natural vegetation, tourism	Damage to the natural environment which may impact on tourism and the economy as a well as the natural ecosystem	Australian Maritime Safety Authority Department of Environment, Land, Water and Planning Department of Transport (including Head, Transport for Victoria)

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Social Setting - community's normal functioning, its resilience, its social fabric and cultural values and heritage	Community wellbeing, s objects of cultural significance.	Disruption to community wellbeing and social networks, adverse emotional and psychological impacts, reduced services within community, damages to objects of cultural significance.reduced services within community, damages to objects of cultural significance.	Australian Maritime Safety Authority Department of Environment, Land, Water and Planning Municipal Councils

Mitigations

Mitigation	Comment	Date	Status	Owner(s)
Legislation	HAZMAT storage design and maintenance (incl. transport design) • HAZMAT transport requirements (e.g. prohibitions, material volume and selection, route and timing selection, transport mode, stakeholder engagement e.g. Worksafe, FVR, VicRoads, transporter, receiver).		Existing	Australian Maritime Safety Authority Department of Transport (including Head, Transport for Victoria)
Audits and inspections	Conducted by AMSA in relation to commercial vessels, port infrastructure, offshore facilities		Existing	Australian Maritime Safety Authority
Legislation	Enforcement of legislation relating to Harbour master directions, safety duty (So Far As Is Reasonably Practicable) obligations of port manager, port operator, vessel operators, offshore facility operators etc		Existing	Department of Transport (including Head, Transport for Victoria)

South Gippsland Shire

Hazard Outbreak

Review date 2015-03-04

Hazard description Emergency animal diseases are diseases of animals (including bees and fish) that pose a serious risk to the economy, public health or the environment. A major outbreak of animal disease across the municipality will have a detrimental effect on the local economy and community functioning. Examples include: Anthrax, Foot & Mouth Disease, High Pathogenic Avian Influenza, Hendra Virus, Prion Diseases/transmissible spongiform encephalopathies (TSEs) including Bovine Spongiform Encephalopathy (BSE) or "Mad Cow" Disease, Buruli Ulcer (Bairnsdale Ulcer) cases on the rise- mycobacterium infection possibly spread by mosquitos and Brush-Tailed Possum faeces and parasitic infestations, such as Varroa Mite.

Rationale South Gippsland one of the premier regions in the state for agribusinesses. Beef, dairy cattle, sheep and grain account for \$500 million in gross revenue of businesses in South Gippsland.

Dashboard Summary

Hazard Assessment

Confidence in Risk Rating Medium

Residual Risk Rating Medium

Maximum Foreseeable Consequence 3.83

Mitigation / Control Effectiveness 1.64

Residual Consequence 2.5

Likelihood / Frequency 3

Collaboration

Other Municipalities Maintain

State Agency Collaboration Maintain

Control Agency Department of Jobs, Precincts and Regions

Key support agencies and/or organisations

Causes

Description of Causes and/or Contributing factors	Owner(s)
Border controls or quarantine fail to keep out an infected animal, infected insect vector or contaminated materials	Department of Jobs, Precincts and Regions
Migratory wild birds or wind borne insects arrive in Australia carrying a disease agent (for example avian influenza, bluetongue virus)	Department of Jobs, Precincts and Regions
Environmental and population dynamics result in susceptible populations of animals being exposed to the disease agent (for example, anthrax, hendra virus)	Department of Jobs, Precincts and Regions

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Social - Impacts on people	Life and property, health system.	Loss of life/Property, material aid, food, financial assistance, personal support services, need for accommodation. Impacts on health system.	Department of Jobs, Precincts and Regions Department of Families, Fairness and Housing
Built - Community/Essential Infrastructure	Health & health system, isolation, economic impacts.	Loss of or impacts on community or essential Infrastructure	Department of Jobs, Precincts and Regions Department of Health
Economic - of local area, economic losses due to damage to, or loss of key infrastructure/livelihoods, disruption to industry, need for \$ for recovery.	Private property, industry / business, agriculture – crop and livestock, impact on tourism.	Damage to, or loss of key infrastructure/livelihoods, private property, industry / business, agriculture – crop and livestock	Department of Jobs, Precincts and Regions Municipal Councils
Environment - continued normal functioning of significant ecosystems	Natural Vegetation & Tourism	Road users – potential for restrictions on usage of some roads by general public, burial pits and disposal of dead animals. Environment – mass disposal of carcasses and product (eg milk) by burial or burning could have local and offsite impacts (eg smells, smoke, ground water contamination)	Environment Protection Authority Department of Jobs, Precincts and Regions Municipal Councils
Social Setting - communities normal functioning, its resilience, its social fabric and cultural values and heritage	Community wellbeing, social networks, services within community, objects of cultural significance	Disruption to community wellbeing and social networks, adverse emotional and psychological impacts, reduced services within community, damages to objects of cultural significance	Department of Health Municipal Councils

Mitigations

Mitigation	Comment	Date	Status	Owner(s)
Agriculture management	Regulated control of risk activities associated with animal feeding, control of vaccinations and therapeutics		Existing	Department of Jobs, Precincts and Regions
Agriculture management	Education to farmers		Existing	Department of Jobs, Precincts and Regions

Mitigations

Mitigation	Comment	Date	Status	Owner(s)
Inspections	Disease surveillance activities - epidemiological information (data and analysis) • international surveillance / intelligence including bioterrorism considerations		Existing	Department of Jobs, Precincts and Regions
Hazard training	Farming industry supply chain best practice and accreditation • specialist training of staff and industry		Existing	Department of Jobs, Precincts and Regions
Community alerts & warnings	Awareness raising, education and information dissemination.		Existing	Department of Jobs, Precincts and Regions
Legislation	Customs and quarantine infrastructure and services International standards and conventions. Australian border controls policy and operations.		Existing	Department of Justice and Community Safety

South Gippsland Shire

Hazard Extreme Temperatures (heat and cold)

Review date 2015-03-04

Hazard description The definition of extreme heat, or heatwave is generally acknowledged as a period of unusual and uncomfortable hot weather that could negatively affect human health. The Bureau of Meteorology (BoM) defines a heatwave as occurring when the maximum and the minimum temperatures are unusually hot over a three-day period at a location. This is considered in relation to the climate and past weather at a location. Extreme cold temperatures can also impact on the South Gippsland Community. The July 2016 winter cold snap across Victoria highlighted the need to include extreme cold in our risk planning.

Rationale A significant heatwave affected south-eastern Australia in late January 2009. Melbourne endured three consecutive days of temperatures above 43°C followed by a record 46.4°C on 7 February. Many records were set for maximum and minimum temperatures, as well as the duration of extreme heat, and the period culminated in the Black Saturday bushfires on 7 February. 14–17 January 2014 Victoria experienced its hottest four-day period on record. The maximum temperatures were slightly lower than 2009. The July 2016 winter cold snap across Victoria highlighted the need for DHHS to develop a long term policy for responding to people sleeping rough during extreme weather conditions and the means to provide a quick response on the ground.

Dashboard Summary

Hazard Assessment

Confidence in Risk Rating High

Residual Risk Rating Medium

Maximum Foreseeable Consequence 2.71

Mitigation / Control Effectiveness 2.14

Residual Consequence 1.8

Likelihood / Frequency 4

Collaboration

Other Municipalities Maintain

State Agency Collaboration Maintain

Control Agency Victoria Police

Key support agencies and/or organisations Ambulance Victoria
Department of Health
Department of Health and Human Services
Department of Families, Fairness and Housing

Causes

Description of Causes and/or Contributing factors	Owner(s)
Lack of long range weather forecasts predict an increase in heatwaves	Bureau of Meteorology
Badly designed and maintained (resilient) infrastructure.	Department of Environment, Land, Water and Planning

Causes

Description of Causes and/or Contributing factors	Owner(s)
No community/industry education and community resilience	Department of Families, Fairness and Housing Department of Health
No Heat Health Alert System to alert subscribers of forecast extreme heat	Bureau of Meteorology Department of Health and Human Services Department of Families, Fairness and Housing Department of Health
Poor urban planning leading to lack of shade or prepared buildings.	Department of Environment, Land, Water and Planning Municipal Councils
Lack of planning (state, local and agency preparedness) including public events.	Emergency Management Victoria Municipal Councils Department of Families, Fairness and Housing Department of Health

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Social - Impacts on people	Life and property, health system.	Loss of life/Property, material aid, food, financial assistance, personal support services, need for accommodation. Impacts on health system.	Department of Health and Human Services Municipal Councils
Built - Community/Essential Infrastructure	Health & health system, isolation, economic impacts.	Loss of or impacts on community or essential infrastructure	Department of Health and Human Services Municipal Councils
Economic - of local area, economic losses due to damage to, or loss of key infrastructure/livelihoods, disruption to industry, need for \$ for recovery.	Road, public buildings, utilities – power, water, gas, telecommunications, private property, industry / business, agriculture – crop and livestock	Damage to, or loss of key infrastructure/livelihoods – road, public buildings, utilities – power, water, gas, telecommunications, private property, industry / business, agriculture – crop and livestock	Department of Jobs, Precincts and Regions Department of Environment, Land, Water and Planning
Public Administration - governing body's ability to govern	Provisions of critical service, effective governance, services/works cease or abandoned.	Struggle to provide critical service, Loss of public confidence in governance, public alarm and unrest.	Municipal Councils Department of Health
Environment - continued normal functioning of significant ecosystems	Natural vegetation, tourism	Damage to the natural environment which may impact on tourism and the economy as well as the natural ecosystem	Department of Environment, Land, Water and Planning Municipal Councils Parks Victoria

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Social Setting - communities normal functioning, its resilience, its social fabric and cultural values and heritage	Community wellbeing, social networks, services within community	Community information and warnings (localised)	Department of Health and Human Services Department of Families, Fairness and Housing Department of Health Municipal Councils

Mitigations

Mitigation	Comment	Date	Status	Owner(s)
Community education	education – survive the heat campaign. Community Resilience Campaigns		Existing	Department of Health and Human Services Department of Families, Fairness and Housing Department of Health
Community alerts & warnings	heat health information surveillance and alert system including social media broadcasting		Existing	Bureau of Meteorology Department of Health and Human Services Department of Families, Fairness and Housing Department of Health
Design	well designed and maintained (resilient) infrastructure.		Existing	Department of Jobs, Precincts and Regions Department of Environment, Land, Water and Planning
Building regulations	urban planning (water fountains, cool places – parks, a/c facilities)		Existing	Municipal Councils
Event permits	Event permits to include strategies for predicted Extreme heat periods - rescheduling or relocating public events		New not started	Municipal Councils
Community Information Guide/Signboard/Map	Weather forecast information distributed to the community and timely and effective manner.		Existing	Department of Health and Human Services Municipal Councils Emergency Management Victoria

South Gippsland Shire

Hazard Storm

Review date 2015-03-04

Hazard description Storm emergencies include windstorms, dust storms, blizzards, storm tides, and severe thunderstorms including hailstorms, tornadoes, and heavy rain. Storms affecting land based communities are divided into two (2) broad categories: 1 Severe thunderstorms 2 Severe weather. The Bureau of Meteorology (BoM) define a severe thunderstorm as one that produces any of the following: • hailstones with a diameter of 2cm or more • wind gusts of 90 km/h or greater • flash flooding, or • tornadoes. Thunderstorms are most likely to occur from October to April. All thunderstorms produce lightning which can cause death and injury, damage infrastructure and ignite bushfires. Significant storm events and flash flooding have led to some significant landslips in South Gippsland.

Rationale There are numerous recorded historic Storm events throughout the Municipality the highest levels on record resulting structural damage to the Tidal River bridge located at Wilson's Promontory isolating over 400 people. They were later airlifted from the area. South Gippsland Shire Council has recently completed a Flood Management Plan and Severe Weather Emergency Plan which incorporates the risks of flood and storm events. Flash Flooding can cause many roads to experience high velocity flows for a short period and can trigger Landslides undermining roads and dams. Tidal Flooding & Storm Surges Moderate to heavy rainfall, coupled with a high or incoming tide can exacerbate flooding. Tidal flows may reduce the capacity of the waterways and stormwater drains to discharge runoff. Townships vulnerable to this type of flooding and expected to be vulnerable to sea level rise include Port Welshpool, Andersons Inlet

Dashboard Summary

Hazard Assessment

Confidence in Risk Rating High

Residual Risk Rating Medium

Maximum Foreseeable Consequence 3.86

Mitigation / Control Effectiveness 2.5

Residual Consequence 2.43

Likelihood / Frequency 4.29

Collaboration

Other Municipalities Maintain

State Agency Collaboration Maintain

Control Agency Victoria State Emergency Service

Key support agencies and/or organisations Bureau of Meteorology
Water Corporations
Municipal Councils
Victorian Building Authority
Catchment Management Authorities
VicRoads

Causes

Description of Causes and/or Contributing factors	Owner(s)
Description of Causes and/or Contributing factors	Owner(s)
Key infrastructure not compliant to engineering standards (Infrastructure standards / regulations)	Municipal Councils VicRoads Water Corporations
Drainage systems do not meet drainage standards and no drainage strategy in place	VicRoads Water Corporations Municipal Councils
Storm impacts not considered in vegetation planning and management	Municipal Councils VicRoads Department of Environment, Land, Water and Planning
Buildings not compliant to engineering standards (planning and building standards / regulations)	Municipal Councils Victorian Building Authority
BoM weather and warning network and systems not in place or communicated	Bureau of Meteorology
No community warnings system in place	Bureau of Meteorology Victoria State Emergency Service Emergency Management Victoria
No or limited human resources equipped, trained and prepared to maintain essential services incl. power, water, gas and transport	Municipal Councils VicRoads
No community buy in to StormSafe community education program	Victoria State Emergency Service

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Social - impacts on people	Life and property, health system	Loss of life/ property, material aid; food financial assistance personal support services, need for accommodation. Impacts on health system.	Victoria Police Victoria State Emergency Service Municipal Councils Department of Health and Human Services
Built - Community/Essential Infrastructure	Health & health system, isolation, economic impacts.	Loss of or impacts on community or essential Infrastructure	Energy Safe Victoria VicRoads

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Environment - continued normal functioning of significant ecosystems	Natural vegetation, tourism	Damage to the natural environment which may impact on tourism and the economy as a well as the natural ecosystem	Department of Environment, Land, Water and Planning Parks Victoria Municipal Councils
Economic - of local area, economic losses due to damage to, or loss of roads infrastructure/livelihoods, disruption to industry, need for \$ for recovery.	Road, public buildings, utilities – power, water, gas, telecommunications, private property, industry / business, agriculture – crop and livestock	Damage to, or loss of key infrastructure/livelihoods – road, public buildings, utilities – power, water, gas, telecommunications, private property, industry / business, agriculture – crop and livestock	Municipal Councils VicRoads
Public Administration - governing body's ability to govern	Provisions of critical service, effective governance, services/works cease or abandoned.	Struggle to provide critical service, Loss of public confidence in governance, public alarm and unrest.	Municipal Councils Emergency Management Victoria
Social Setting - communities normal functioning, its resilience, its social fabric and cultural values and heritage	Community wellbeing, social networks, services within community, objects of cultural significance.	Disruption to community wellbeing and social networks, adverse emotional and psychological impacts, reduced services within community, damages to objects of cultural significance.	Department of Health and Human Services Municipal Councils Parks Victoria

Mitigations

Mitigation	Comment	Date	Status	Owner(s)
Community alerts & warnings	Includes planning for and sharing of information between agencies and with the community		Existing	Bureau of Meteorology Victoria State Emergency Service
Community education	Includes with tourists (translations if required and tourism providers.		Existing	Victoria State Emergency Service Municipal Councils
Planning permit overlays	Includes appreciation of Land subject to inundation overlays (LSIO) and future strategic planning work		Existing	Municipal Councils
Community Information Guide/Signboard/Map	Recognising opportunities to improve community messaging with VMS boards strategically located with key messages.		New not started	Municipal Councils Victoria State Emergency Service

South Gippsland Shire

Hazard Public health

Review date 2024-02-25

Hazard description An influenza pandemic occurs when a highly- infectious new strain emerges for which humans have little or no immunity. During a pandemic, the virus spreads rapidly around the world causing high rates of illness and death – resulting in severe social and economic disruption. History has shown that influenza pandemics tend to occur every 10-50 years. Because of their high levels of illness and death, pandemic influenza events can have significant effects on society. In addition, there can be profound effects through the physical distancing measures (between people) that may be required. Schools may be closed and public events cancelled.

Rationale A novel coronavirus known as COVID-19 is occurring as a pandemic in Australia and throughout the world. Whereas COVID-19 is not an influenza virus, it is a severe highly transmissible virus that is likely to result in comparable onsequences estimated for the credible worst-case scenario in the 2017 assessment. Pandemics due to coronaviruses, which include Severe acute respiratory syndrome (SARS) ans Middle East respiratory syndrome (MERS), should be considered as an ongoing threat globally.

Dashboard Summary

Hazard Assessment

Confidence in Risk Rating High

Residual Risk Rating High

Maximum Foreseeable Consequence 3.86

Mitigation / Control Effectiveness 2.71

Residual Consequence 2.83

Likelihood / Frequency 3.83

Collaboration

Other Municipalities Maintain

State Agency Collaboration Maintain

Control Agency Department of Health

Key support agencies and/or organisations Municipal Councils

Causes

Description of Causes and/or Contributing factors **Owner(s)**

No health guidelines and relevant standards and codes Department of Health

No/lack of routine seasonal vaccination Department of Health

Lack of community education Department of Health

Causes

Description of Causes and/or Contributing factors	Owner(s)
No pandemic planning, surge capacity planning and exercises	Department of Health Department of Health and Human Services Municipal Councils
Lack of surveillance and modelling data from outbreaks, research of historic events	Department of Health and Human Services Department of Health

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Social - People	All members of the community and visitors.	Sickness, death, isolation, financial impacts.	Department of Health and Human Services Department of Health Municipal Councils
Built - Community/Essential Infrastructure	Essential services providers, private industry, Health & health system, isolation, economic impacts.	Reduction in available human resources, lack of open community infrastructure, lack of maintenance.	Department of Jobs, Precincts and Regions
Economic - Economy & Tourism, loss of key livelihoods, disruption to industry, need for \$ for recovery.	Local businesses, agriculture, tourism, manufacturing.	Less spending, more unemployment, businesses close.	Department of Jobs, Precincts and Regions Municipal Councils
Environment - Natural Environment	reduction in maintenance activities	Improvement in some aspects of natural environment	Department of Environment, Land, Water and Planning Parks Victoria Municipal Councils
Public Administration - governing body's ability to govern	Provisions of critical service, effective governance, services/works cease or abandoned.	Struggle to provide critical service, Loss of public confidence in governance, public alarm and unrest.	
Social Setting - community's normal functioning, its resilience, its social fabric and cultural values and heritage	Community wellbeing, social networks, services within community, objects of cultural significance.	Disruption to community wellbeing and social networks, adverse emotional and psychological impacts, reduced services within community, damages to objects of cultural significance.	Department of Jobs, Precincts and Regions Municipal Councils Department of Health and Human Services Emergency Management Victoria

Mitigations

Mitigation	Comment	Date	Status	Owner(s)
Infection control measures			Existing	Department of Health and Human Services Department of Health
Vaccine program			Existing	Department of Health
Policy			Existing	Department of Health
Business continuity plans			Existing	Municipal Councils Department of Health Department of Health and Human Services
Emergency Services Response Framework			Existing	Department of Health
Community education			Existing	Department of Health Department of Health and Human Services Municipal Councils

South Gippsland Shire

Hazard Flood

Review date 2015-03-04

Hazard description The severe and widespread floods in Victoria in 2010-12. The risk from flood is very real and exists in many parts of the state, including South Gippsland Shire. Flooding is mainly caused by heavy rainfall that exceeds the capacity of normal water courses and bodies of water. Most floods are classified as riverine (where rivers, streams or lakes overflow) or stormwater flooding that occurs when the capacity of drainage systems is exceeded and water can flow in normally dry and often impervious urban areas. Flood waters can often rise rapidly and flow with high velocity, thus posing the greater threat to human life, particularly for stormwater flooding or riverine flooding in the upper catchments. Such flooding is often called flash flooding because warning times are very short. Coastal flooding, when land adjacent to the coastline or coastal waterways is inundated by either high tides or storm surges or both, is also experienced in Victoria. This can be exacerbated by wind-wave generation from storm events.

Rationale South Gippsland Shire has recorded a number of flood events. The highest levels on record in the Tarwin River Catchment were in 2012. South Gippsland Shire Council has recently completed Severe Weather Emergency Plan which identify flood and storm risk exposure. This plan describes the riverine, flash flooding, overland flow, storm surge and sea level rise flooding risk. The major riverine flooding risk is in the Tarwin River catchment including the towns of Fish Creek, Meenyan & Tarwin Lower. Towns such as Fish Creek have required evacuation (2011) from flash flooding. Tidal Flooding & Storm Surges Moderate to heavy rainfall, coupled with a high or incoming tide can exacerbate flooding. Tidal flows may reduce the capacity of the waterways and stormwater drains to discharge runoff. Townships vulnerable to this type of flooding and expected to be vulnerable to sea level rise include Port Welshpool, Andersons Inlet and Venus Bay. Rural Flood Risk The following areas have significant rural flood risk including isolation or inundation. • Corner Inlet: Port Welshpool & McLaughlin's Beach • Tarwin River: Berrys Ck, Mardan Sth, Mirboo Nth, Tarwin Lower, Fish Creek • Bass River: Loch • Franklin River: Port Franklin

Dashboard Summary

Hazard Assessment

Confidence in Risk Rating High

Residual Risk Rating Low

Maximum Foreseeable Consequence 2.71

Mitigation / Control Effectiveness 2.57

Residual Consequence 2

Likelihood / Frequency 2

Collaboration

Other Municipalities Maintain

State Agency Collaboration Maintain

Control Agency Victoria State Emergency Service

Dashboard Summary

Key support agencies and/or organisations

Country Fire Authority
Bureau of Meteorology
Parks Victoria
Fire Rescue Victoria
VicRoads
Victoria Police

Causes

Description of Causes and/or Contributing factors	Owner(s)
Inappropriate land use planning, constructing or diversion of natural water courses	Municipal Councils
Lack of community education, awareness and engagement to prevent and respond to	Municipal Councils Victoria State Emergency Service
Lack of maintenance to roads and drainage infrastructure	Municipal Councils VicRoads

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Social - Impacts on people	Life and property, health system	Loss of life/Property, Restricted access to material aid, food, financial assistance, personal support services, need. Impacts on Psychological health.	Municipal Councils Victoria State Emergency Service
Economic - of local area, economic losses due to damage to, or loss of key infrastructure/livelihoods, disruption to industry, need for \$ for recovery.	Road, public buildings, utilities – power, water, gas, telecommunications, private property, industry / business, agriculture – crop and livestock	Damage to, or loss of key infrastructure/livelihoods – road, public buildings, utilities – power, water, gas, telecommunications, private property, industry / business, agriculture – crop and livestock	Department of Environment, Land, Water and Planning Municipal Councils Parks Victoria Victoria State Emergency Service
Environment - continued normal functioning of significant ecosystems	Natural vegetation, tourism	Damage to the natural environment which may impact on tourism and the economy as a well as the natural ecosystem	Department of Environment, Land, Water and Planning Municipal Councils Parks Victoria

Impacts

Who or What	Vulnerability and/or Exposure	Likely Impact	Owner(s)
Built - Community/Essential Infrastructure	Health & Health system. isolation and economic impacts	Loss of or impacts on community or essential Infrastructure	Municipal Councils Victoria State Emergency Service
Public Administration - governing body's ability to govern	Provisions of critical service, effective governance, services/works cease or abandoned.	Struggle to provide critical service, Loss of public confidence in governance, public alarm and unrest.	Parks Victoria Department of Environment, Land, Water and Planning Municipal Councils Department of Health and Human Services
Social Setting - communities normal functioning, its resilience, its social fabric and cultural values and heritage	Community wellbeing, social networks, services within community, objects of cultural significance.	Disruption to community wellbeing and social networks, adverse emotional and psychological impacts, reduced services within community, damages to objects of cultural significance.	Department of Health and Human Services Department of Environment, Land, Water and Planning Parks Victoria Municipal Councils

Mitigations

Mitigation	Comment	Date	Status	Owner(s)
Community alerts & warnings	Includes planning for and sharing of information between agencies and with the community		Existing	Emergency Management Victoria Victoria State Emergency Service
Community education	Includes with tourists (translations if required) and tourism providers.		Existing	Municipal Councils Victoria State Emergency Service
Planning permit overlays	Land subject to Inundation Overlays considered for future strategic planning		Existing	Municipal Councils Department of Environment, Land, Water and Planning
Emergency management plans	Review and exercising of the Severe Weather Emergency Plan		Existing	Victoria State Emergency Service