

RISK MANAGEMENT ARRANGEMENTS

1. INTRODUCTION

The application of risk management principles and procedures enables Council and all stakeholders in the MEMP to understand the threats that impact on community safety and to develop control strategies to mitigate or eliminate the identified risks. The MEMPC agreed to use the Victoria State Emergency Service's Community Emergency Risk Assessment (CERA) Guidelines as the methodology for this process. It is based on the International Standard ISO 31000 Risk Management.

Glen Eira City Council is committed to meeting its obligations under the Emergency Management Act 1986. In doing so Council acknowledges that the development and implementation of preventative actions require the allocation of resources (human and financial), multi-agency support and broad consultation to ensure a co-ordinated and well-planned approach and outcome.

2. AIM

The Community Emergency Risk Assessment (CERA) process is designed to systematically identify hazards, determine risks and prioritise actions to reduce the likelihood and affects of an emergency.

3. COMMUNITY PROFILE

Geography

The City of Glen Eira is located approximately 10 kilometres south east of the CBD of Melbourne and covers an area of 38.7 square kilometres. It is an established area that includes the suburbs of Bentleigh, Bentleigh East, Carnegie, Caulfield, Caulfield South, Caulfield North, Caulfield East, Elsternwick, Gardenvale, Glen Huntly, McKinnon, Murrumbeena, Ormond and part of St Kilda East.

The City of Glen Eira is bounded by the City of Stonnington in the north, the City of Monash in the east, the City of Kingston in the south, and the cities of Bayside and Port Phillip in the west.

The City of Glen Eira extends from Hotham Street and Nepean Highway in the west to Poath Road and Warrigal Road in the east and from South Road in the south to Dandenong Road in the north. It is generally flat, ranging from 10m AHD (Australian Height Datum - mean sea level) to 50m AHD with 90% of the natural water run off draining to Elster Creek in the south west and 10% draining toward the Yarra River in the north.

History of Emergencies

Over the last 10 years there have been few significant emergency events that have impacted on Glen Eira. The types of emergencies that have occurred include road crash, residential dwelling and small industrial facility fires, bomb threat, electricity blackout, industrial accident, gas leak, storm, hazardous chemical, smog air pollution, water pollution.

Recent significant emergencies include:

Date	Incident	Impact
3 Aug 16	Electrical fire in apartment block – Dudley St, Caulfield East	Approx. 90 students displaced. ERC established overnight until power re-established in apartment block
29 Dec 16	Storm / flash flood	4 households received DHHS emergency grants
1-3 Dec 17	Storm / flash flood	1 household displaced and accommodated overnight.

Date	Incident	Impact
1 Mar 18	House fire – Station Ave, McKinnon,	Resident admitted to Alfred Burns Unit in serious condition. MRM responded and door knocked residents and supported Red Cross to assist affected resident.
7 Dec 18	House fire – Judith St Carnegie	Multi agency response. Neighbouring street (Libna St) affected. A number of local residents provided with emergency accommodation.
1 Mar 19	Heatwave	Heatwave Sub Plan implemented.
26 Jun 19	House fire – Alston Grove, St Kilda East	Residents found alternative accommodation.
30 Jun 19	House fire – Murrumbeena Road, Murrumbeena	Spurway Nursing Home (Council owned and operated) adjacent to fire location evacuated. Emergency accommodation provided to affected family from address of fire.
27 Sep 19	House fire – Mimosa Rd, Carnegie	Significant hoarding issue at address. Resident suffered fatal injuries as a result of fire.
6 Oct 19	Rooming house fire – Hawthorn Road, Caulfield	11 residents displaced. 5 provided with emergency accommodation for period up to 10 days.
19 Jan 20	Storm	1 family accommodated overnight at Crest on Barkley hotel
6 Mar 20 - ?	COVID-19	Pandemic Sub Committee stood up. COVID-19 Response Team lead by Council established, involving numerous community support relief agencies. Various Incident Action Plans developed to address response, relief and recovery
27 Mar 20	Fuel spill (petrol station into neighbouring basement car park) – Patterson Rd, Bentleigh	4 residents accommodated overnight at Crest on Barkley hotel

Police data in relation to road crashes indicate there has been 8 fatal and 392 serious injury road collisions in Glen Eira between 1 Jan 2016 and 31 Mar 2020. Although not statistically significant, the largest proportion of fatalities occurred Tuesday between 1100 hours and 1400 hours, with more on a Tuesday than any other day. The police heat map below reflects the distribution of serious injury and fatal road crashes in Glen Eira over the same period.

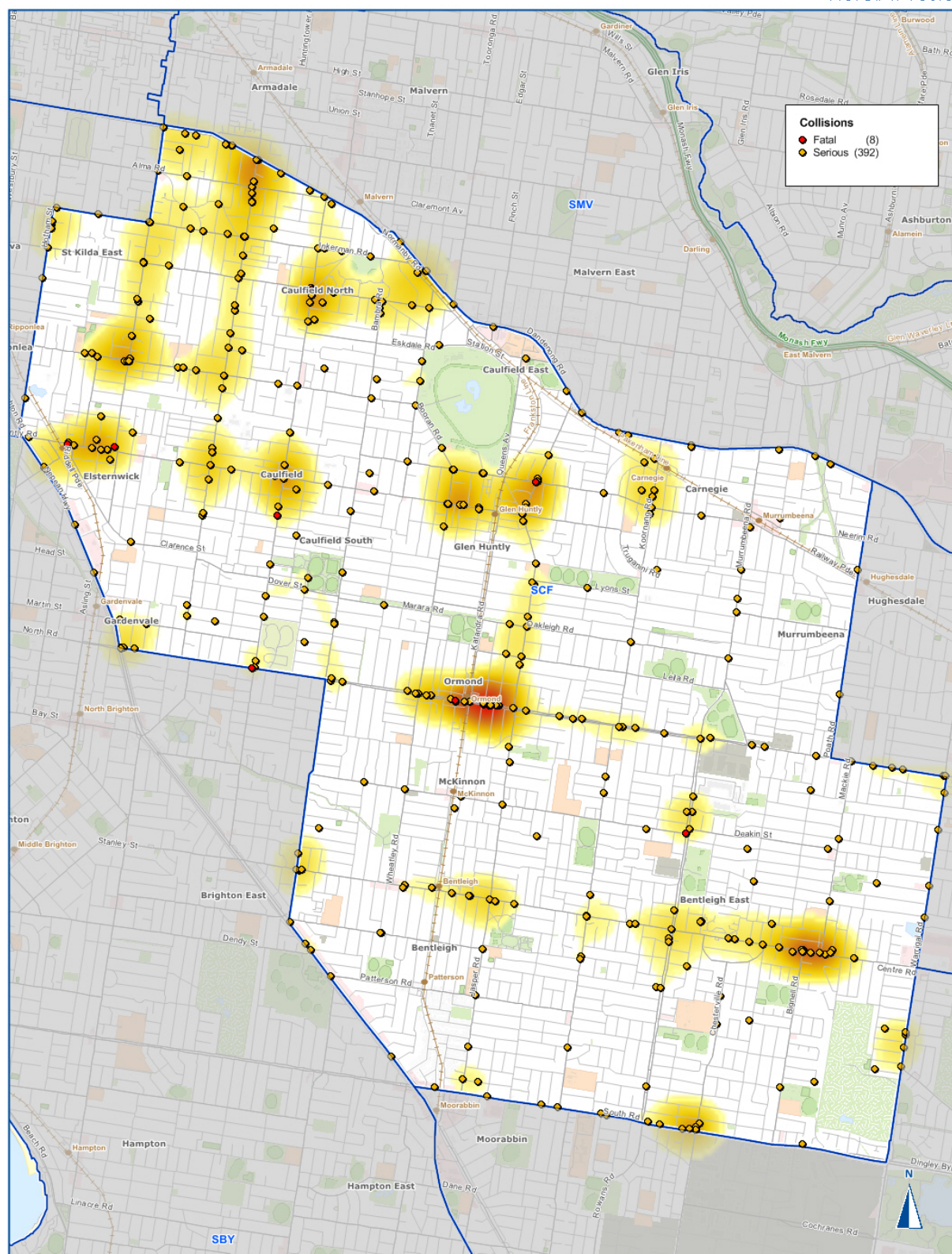
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Glen Eira LGA Fatal and Serious Injury Collisions

01-JAN-2016 to 31-MAR-2020



VICTORIA POLICE

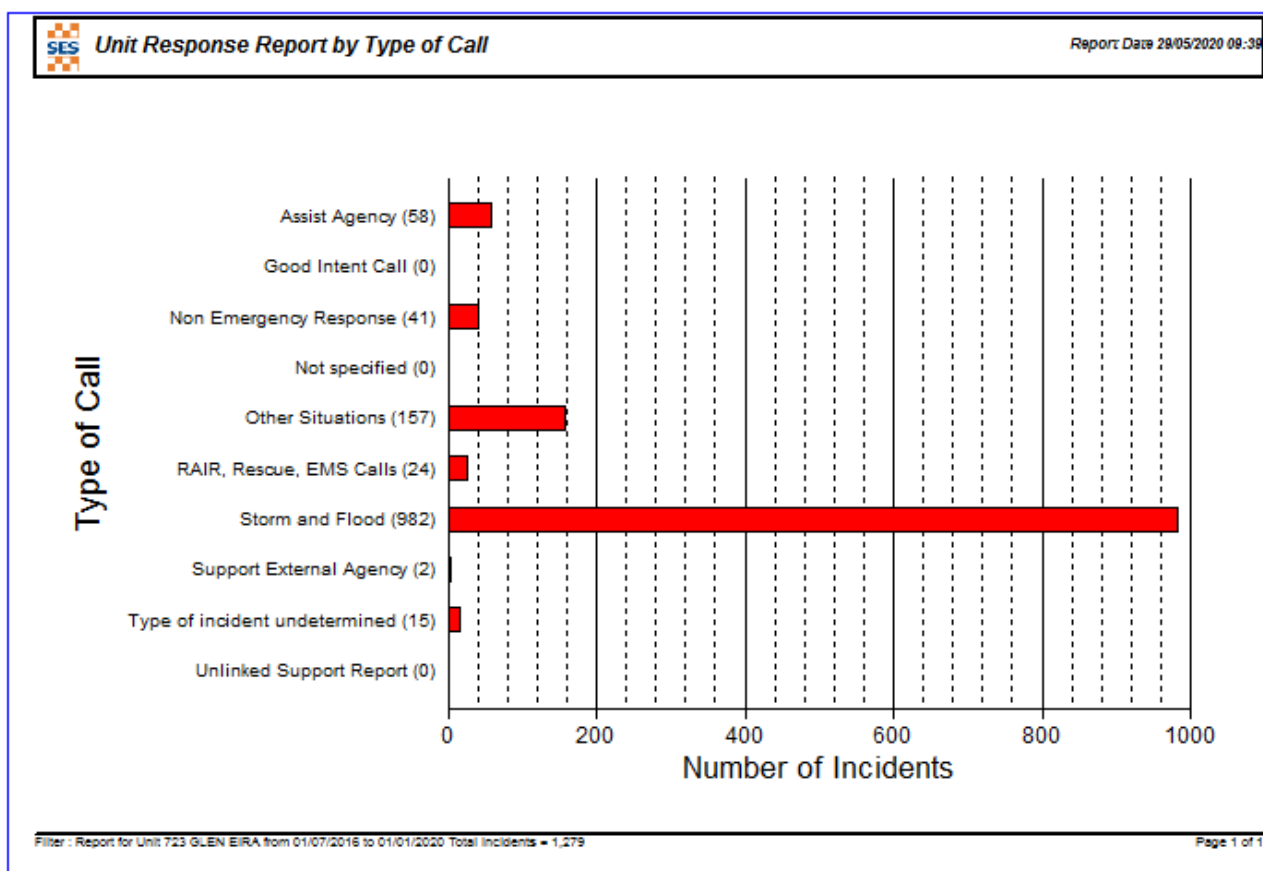


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Over the 12 months to April 2020 the Metropolitan Fire & Emergency Services Board (MFB) has responded to 1228 incidents within Glen Eira. This represents a 18% increase from the previous reporting period. Of all the calls since April 2019, approximately 15% are fire related (down from 21% over the previous reporting period), 38% are non-fire related (down from 41%), and 47% are false alarms. A further break down of the calls over the May 2019 to April 2020 period shows that the distribution of calls remained generally similar across the year. There is no information available to reflect geographical or domiciliary clustering.

From the period July 2016 to January 2020 VICSES has responded to 1279 requests for assistance. These were evenly spread across the entire municipal district. Of the calls during this period 77% were storm flooding related of which 25% of those calls were for trees down.

Significant events include thunderstorm and wind rain events during December 2019 and again in March 2020 flash flooding.



Ambulance Victoria advised that their responses in the Glen Eira local government area were as follows:

	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020
Total Cases	2676	2709	2678	2766	2868	2891	2758
Total Code 1 (emergency) cases	1292	1314	1295	1326	1405	1455	1399

These figures reflect only a slight increase in the total volume of calls received, with a slight increase in the number of calls that were classified as life threatening. No breakdown of demographic or diagnostic data is available to further classify the nature of the Ambulance Victoria calls.

As of June 2020 the impact of COVID-19 has resulted in 53 cases in Glen Eira, with a widespread shutdown of services and physical distancing directions from the Chief Health Officer. Although there have been 19 fatalities across Victoria, there is no data available to suggest any of these are tied to Glen Eira.

Infrastructure

The municipality is predominantly residential in character, with some small pockets of industrial and commercial activity in specific areas. In addition there are:

- 3 public train lines, 9 train stations, 3 tram lines and a tram depot.
- 3 public hospitals (Caulfield Hospital, Monash Medical Centre and Calvary Health Care Bethlehem).
- 4 private hospitals (Elsternwick Private Hospital, Masada Private Hospital, Melbourne Day Surgery, Hopetoun Rehabilitation Hospital).
- 3 nursing homes (Warrawee, Spurway, Rosstown).

In addition, the Department of Human Services has 568 public housing properties in municipality of which 127 are transitional housing accommodation.

The GeoTech Urban Fire Risk Profile for Glen Eira reflects the following numbers of facility by type (based on data from their current report attached to this workbook):

Early Education	177	Day Procedure Centre	8
Gallery/Museum/Theatres	3	Disability Services	57
Libraries/Halls/Community Centres	29	Mental Health	9
Other Colleges	20	Private Hospital	6
Other Facility	9	Public Hospital	3
Place of Worship	104	Special Accommodation	2
Primary/Secondary School	85	Bed & Breakfast/Guest House	7
Reception/Function Centre	17	Boarding House/Hostel/Backpackers	67
Sport Facility	52	Camps	1
Sport Stadium	6	Hotel/Motel/Tourist Resort	17
University/TAFE	3	Serviced Apartments	10
Aged Care	110		

The municipality has located within its boundaries electricity, gas and water distribution infrastructure, and sewerage and drainage systems typical of an inner metropolitan council. A small South East Water reservoir, which services the Sandringham area is located on Warrigal Road north of Centre Road.

Community Capacity

In comparison to Greater Melbourne the City of Glen Eira population is highly educated, skilled and has a greater proportion of persons earning a high income.

Approximately 71.2 per cent of the population have completed Year 12 (or equivalent) and 56 per cent hold a formal qualification (Tertiary). Professionals, clerical and administrative workers and managers account for 63 per cent of the population.

Overall, 21.3 per cent of the population report performing voluntary work, compared with 17.6 per cent for Greater Melbourne.

Just over 66,047 people are employed in the City of Glen Eira. The highest number of employees work in professional, scientific and technical services (13.3 per cent), health and social assistance (12.1 per cent), retail trade (10.3 per cent) education and training (9.9 per cent) and manufacturing (6.9 per cent).

Industry

There are 13,521 businesses registered in Glen Eira, 8,589 of these businesses are non-employing businesses, 3,432 businesses employ one to four employees, and 1,500 businesses employ five or more employees.

The City has more than 300 health service providers ranging from general practitioners, chemists and dentists to optometrists and naturopaths.

Municipal events and facilities

Glen Eira City Council supports a variety of local festivals, cultural and sporting events throughout the year. For further information please refer to the Calendar of Events on Council's website.

Demography

Based on the 2016 Australian Bureau of Statistics data, the population (usual residence) of the municipality was 149,012 coming from a variety of religious and ethnic backgrounds. There are an above average proportion of persons of some sectors of the population in Glen Eira when compared with the Greater Melbourne averages as detailed in the table below:

Sector	Glen Eira	Greater Melbourne
Jewish religion	16.8%	0.9%
Age (above 65)	15.1%	14.7%
Single person household	25.0	22.0%
Rental	32.6%	28.8%
Hindu religion	4.0%	2.9%

Conversely, some sectors are under represented when compared with the Melbourne average:

Sector	Glen Eira	Greater Melbourne
Christian religion (all denominations)	35.2%	46.3%
Buddhist religion	2.1%	3.8%

Bentleigh East has the largest population at 25,454 followed by the area comprising Caulfield North and Caulfield East (15,816), Bentleigh (15,611) and Carnegie (15,683). St Kilda East has the smallest population (3,969).

Since 2011, Glen Eira's population has grown by almost 11,860 people. The biggest percentage changes in age structure between 2011 and 2016 was an increase of 18.8% in 60 to 69 years Empty nesters and retirees' service age group.

Older persons

Glen Eira has an older population with more than 28,000 residents (20.1%) over 60 years of age. This is greater than the Greater Melbourne figure of 19% (*Source: 2016 ABS Census Data*).

Older adults are most vulnerable in the heat due to a combination of factors. These include impaired physiological response to heat, such as a reduced thirst response and reduced ability to sweat, low fitness levels, immobility, visual impairment, varying degrees of cognitive decline and waning social connectedness and support.

Infants and young children

There are 8,601 children aged 0-4 years old living in Glen Eira. Infants and children are sensitive to the effects of high temperatures, and rely on others to regulate their environments and provide adequate liquids.

People with an illness or taking medications

People who are physically ill, or who take medications, may be more prone to dehydration and heat exhaustion during a heatwave. The most prevalent health conditions affecting Glen Eira residents include heart disease, dementia, stroke, cancer (lung and breast) and diabetes.

People with a disability

In Glen Eira there are 6,204 (4.4% of the population) reported requiring daily assistance due to disability and 13,369 people (11.6 per cent) acting as carers to a person with a disability. People living with a disability rely on the people caring for them, to assist in cooling them down in the heat and providing appropriate hydration.

People living alone and social isolation

Glen Eira has a higher proportion of lone person households and fewer families with children, compared to the Melbourne metropolitan area. *(Source: 2016 ABS Census Data)*

People living alone, particularly older persons may be isolated or lack social support. If they come under difficulty in the heat, they may not be able to access medical help, or be noticed by others. Social support can be critical during a heatwave. Access to services and the willingness of the community including family and friends to check on vulnerable individuals is important to ensure heat related illness is treated quickly and effectively.

The 2008 Community Indicators Survey shows that 90.4 per cent of persons living within Glen Eira reported that they could definitely get help from friends, family or neighbours if they needed it.

Housing Tenure

Housing tenure also plays a role in a person's vulnerability in the heat. The housing insecure, those who are experiencing housing stress, difficulty paying the bills or lack of control of their living environment are also more vulnerable in the event of a heatwave.

Housing Tenure in Glen Eira		
Tenure Type	Number	Percentage
Owned outright	17,100	31.2%
Owned with a mortgage	16,114	29.4%
Rented	17,842	32.6%
Other	391	0.7%
Not Stated	3,280	6.0%

(Source: 2016 ABS Census Data)

Culturally and linguistically diverse backgrounds

Messages and health information delivered to people from culturally and linguistically diverse backgrounds must be in a format that can be interpreted and understood.

When compared to Greater Melbourne, Glen Eira has a larger proportion of people born overseas as well as a (larger proportion of people from non-English speaking backgrounds). 64 per cent of Glen Eira's residents were born in Australia. More than one quarter (27.5 per cent) of Glen Eira residents were born in a non-English speaking country. Most common countries of birth other than Australia are China (5.1%), India (4.4%), and England (3.6%).

Other than English, the most common languages spoken in Glen Eira are Mandarin, Greek, and Russian.

Health

The Glen Eira community enjoys a higher level of good health and well being than the Victorian average. The Glen Eira population also enjoys a higher than average life expectancy at birth than the Victorian average.

The health protection priority issues for the Glen Eira are environmental health, food safety, immunization, water quality and infectious disease. Local health development issues which can be advanced within statewide frameworks include prevention of injuries, cancer, cardiovascular disease and tobacco control.

Climate and Weather

Melbourne has a moderate oceanic climate and is well known for its changeable weather conditions. This is mainly due to Melbourne's location situated on the boundary of the very hot inland areas and the cold southern ocean. This temperature differential is most pronounced in the spring and summer months and can cause very strong cold fronts to form. These cold fronts can be responsible for all sorts of severe weather from gales to severe thunderstorms and hail, large temperature drops, and heavy rain.

As a general rule, Melbourne enjoys a temperate climate with warm to hot summers, mild and sometimes balmy springs and autumns, and cool winters.

Public Buildings Spaces and Events

Major features of Glen Eira City Council include Caulfield Racecourse, Monash University (Caulfield Campus), Rippon Lea Historic Mansion, Labasaa Historic Mansion, Monash Medical Centre (Moorabbin Campus), Yarra Yarra Golf Club, Glen Eira Sports and Aquatic Centre (GESAC), Caulfield Park, Princes Park, Bailey Reserve, Centenary Park, Duncan MacKinnon Reserve, McKinnon Reserve and various shopping strips along several of the main roads.

Glen Eira offers a variety of recreational opportunities across the City's 68 parks, 45 playgrounds and 45 sportsgrounds that collectively cover 163 hectares. In addition, the Council supports a variety of local festivals, cultural and sporting events throughout the year. Some of the Jewish culturally specific events attract crowds as large as 10,000. There are also a number of Council planned and managed events including:

Event	Location	Annual Date	Average Attendance	Nature of Event
Groove & Graze Series (3 events)	Halley Park, Bentleigh	Late October	6,000	Music and food
	Hopetoun Gardens, Elsternwick	Mid November	6,000	
	Koornang Park, Carnegie	February	6,000	
Party in the Park Series (3 events)	Princes Park, Caulfield South	Mid February	5,000	Family friendly entertainment and food vendors
	Hodgson Reserve, Bentleigh	Mid March	5,000	
	Packer Park, Carnegie	Mid January	7,000	'Under the stars' conducted 1800 to 2200 hours
Carols	Hodgson Reserve, Bentleigh	Mid December	5,000	Culturally specific entertainment (1730 to 2030 hours)

Each of these and the larger community conducted events have their own risk assessments and event specific emergency management plans.

Essential Services

Essential Services in Glen Eira City Council include:

- Services delivered by identified Critical Infrastructure
 - Train, Tram and Bus Lines\Routes
 - Public Hospitals
 - Private Hospitals
 - Nursing Homes

- Emergency Services and Community Emergency Organisations
 - Caulfield and Murrumbeena Police Stations
 - MFB Station 32
 - Glen Eira SES Unit
 - Community Security Group (CSG) – Jewish community security and crisis/emergency management
- Community Services delivered by Council
 - Refer to Community Plan on Council's web site

Hazardous Sites

Nil.

4. CERA PROCESS

The CERA process comprises of a five-step framework, which includes Risk Assessment and Risk Treatment. The CERA process will replace the Community Emergency Risk Management (CERM) Plan. The CERA process underpins the MEMP by providing a mechanism for the identification of hazards, the determination of risks associated with those hazards and how those risks are to be managed. The CERA process aims to reduce the incidence and impact of risks within the community by identifying the risks that face the community, assessing the vulnerability of those at risk and providing options, treatments and/or elimination of the risks.

Step 1 - Establish the Content

- Establish the objectives of the CERA process.
- Define how CERA will benefit and respond to the needs of community, regional and state level stakeholders.
- Define the approach and identify key participants.
- Define the risk assessment criteria that will be used.
- Develop a municipal profile.

Step 2 - Identify Emergency Risks

- Through primary and secondary sources, identify and review the universe of potential emergency risks.
- Based upon historical data, loss events and other relevant analysis (Urban Fire Risk Profile) select a short list of risks for further assessment relative to the municipality.

Step 3 - Analyse Emergency Risks

- Estimate ratings of consequence, likelihood and mitigation/preparedness for each risk.
- For each risk - determine high-level changes required, if any, in collaborating with other municipalities and state-level agencies.
- For each relevant share attribute group, facility and/or location - estimate the level of action, if any, relative to emergency risks.

Step 4 - Evaluate Emergency Risks

- Review the preliminary analysis to determine the extent of actions to be taken relative to risks and/or shared attribute groups.
- Determine if further, in depth analysis is required for certain risks and/or shared attribute groups.
- Determine best approach, resources and participants required to develop specific actions relative to each risk.

Step 5 - Treat Emergency Risks

- Determine specific actions for improving controls and preparedness, generally.
- Define specific actions to enhance collaboration with other communities and/or state level agencies.
- Determine specific actions to better control/mitigate the risk and related impacts, particularly across shared attribute groups.
- Leverage the results of the CERA to inform your MEMP and other related documents and processes.

The outcome of this process has identified the following risks to the community of Glen Eira and their respective ratings.

Glen Eira City Council			
14 May 2020			
Code	Risk	Ratings Confidence	Residual Risk Rating
ET-HW	Heat Health	High	High
N-O1	Severe Storm / Flash Flooding	High	High
T-TR	Transport Incident - Train, Rail	High	Medium
H-O1	Terrorism / Massacre / Siege	Med	High
I-O1	Loss of Utility	High	Medium
Te-O1	Structure Fire	High	Medium
Te-O2	Hazardous Material Release - Facility or	High	Medium
HE	Human Epidemic / Pandemic	Low	High

5. OUTCOMES OF THE CERA PROCESS

Dashboard

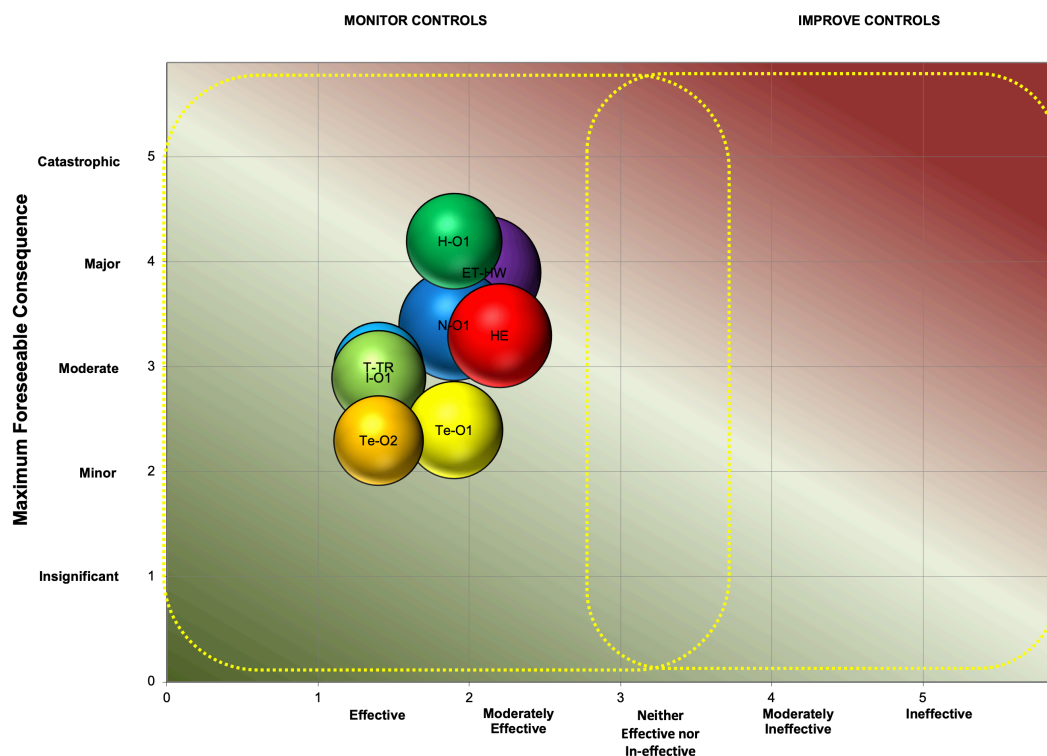
Municipal Government:	Glen Eira City Council
EM Region:	Central Region (Melbourne Metropolitan)
Last Review:	14/5/20

Residual Consequence Calculator					
	Deaths		\$	Loss	\$
5. Catastrophic	15	Greater than	5,634,900		
4. Major	2	Between	1,878,300	and	5,634,900
3. Moderate	0	Between	563,490	and	1,878,300
2. Minor	0	Between	187,830	and	563,490
1. Insignificant	0	Less Than	187,830		

Ref	Code	Hazard Title	Risk Ratings						Collaboration	
			Ratings Confidence	Maximum Foreseeable Consequence	Current Mitigation / Control Activities	Residual Consequence (See calculator above)	Likelihood / Frequency	Residual Risk Rating (RRR) (Auto generated)	Other Municipalities	State Agencies
Risk 1 Risk 2	ET-HW	Heat Health	High	3.90	2.10	3.10	4.60	High	Establish	Establish
Risk 2	N-O1	Severe Storm / Flash Flooding	High	3.40	1.90	2.50	4.40	High	Establish	Establish
Risk 3	T-TR	Transport Incident - Train, Rail	High	3.00	1.40	2.00	2.90	Medium	NA	Maintain
Risk 4	H-O1	Terrorism / Massacre / Siege	Med	4.20	1.90	3.70	3.30	High	Establish	Establish
Risk 5	I-O1	Loss of Utility	High	2.90	1.40	1.80	3.20	Medium	NA	Maintain
Risk 6	Te-O1	Structure Fire	High	2.40	1.90	2.10	3.40	Medium	Maintain	Maintain
Risk 7	Te-O2	Hazardous Material Release - Facility or Transport	High	2.30	1.40	1.70	2.90	Medium	NA	Maintain
Risk 8	HE	Human Epidemic / Pandemic	Low	3.30	2.20	2.70	3.90	High	Establish	Maintain

Heat Map

Community Emergency Risk Assessment (CERA) Heat Map



Consolidated Treatment Actions

Risk No	Hazard Description	Last Review Date	Number	Description of Opportunity	Cause Number (if applicable)	Impact Number	Owner(s)	Due Date
1	Heat Health	14/5/20	1	Heatwave education program for the Jewish community		1	JEMP	Ongoing
1	Heat Health	14/5/20	2	Maintain the delivery of cool places for community respite (i.e. extended library hours)		6	Council	Ongoing
1	Heat Health	14/5/20	3	Further delivery of community information as appropriate (i.e. promotion of extended library hours)		6	Council	Ongoing
2	Severe Storm / Flash Flooding	14/5/20	1	Development of Community Flood Information Guides		1	VICSES, Council	Ongoing
2	Severe Storm / Flash Flooding	14/5/20	2	Development of a Municipal Storm Emergency Plan or incorporation of storm into existing Flood Emergency Plan		1	VICSES, Council	Ongoing
2	Severe Storm / Flash Flooding	14/5/20	3	Further delivery of community education programs as appropriate		1	VICSES, Council	Ongoing
2	Severe Storm / Flash Flooding	14/5/20	4	Renew and upgrade of Melbourne Water Drainage System as appropriate		6	Melbourne Water	Ongoing
3	Transport Incident - Train, Rail	14/5/20	1	Exercise Skyrail with ESO's (MFB, VICPOL, VICSES, LGA)			Metro Rail/VICSE	Ongoing
4	Terrorism / Massacre / Siege	14/5/20	1	Engage with marginalised disaffected youth			VICPOL, Council	Ongoing
4	Terrorism / Massacre / Siege	14/5/20	2	Engage with community/religious leaders			VICPOL, Council	Ongoing
5	Loss of Utility	14/5/20	1	Review business continuity planning to ensure loss of utility is identified			Council	Ongoing
6	Structure Fire	14/5/20	1	MFB risk profiling and analysis of trends in incident response reports by municipal area			MFB	Ongoing
7	Hazardous Material Release - Facility or Transport	14/5/20	1	MFB risk profiling and analysis of trends in incident response reports by municipal area			MFB	Ongoing
8	Human Epidemic / Pandemic	14/5/20	1	Further delivery of community education programs as appropriate			DHHS, Council	Ongoing
8	Human Epidemic / Pandemic	14/5/20	2	Review Glen Eira risk profile following 2020 Covid-19			MEMPC	2022
8	Human Epidemic / Pandemic	14/5/20	3	Review of ongoing community notifications from the LGA during a pandemic			Concil	2022